



Centraal Bureau voor de Statistiek

**Sponsorship Group on Measuring Progress,  
Well-being and Sustainable Development**

**Report of the Task Force**

**Household perspective and  
distributional aspects of income, consumption and wealth**

**November 2011**

*The proposals expressed in this report have been used as basis for writing chapter 3.1 of the consolidated report of the Sponsorship Group on Measuring Progress, Well-being and Sustainable Development<sup>1</sup> which has been adopted by the European Statistical System Committee in November 2011.*

**Abstract.** The ‘Stiglitz/Sen/Fitoussi’ Commission on the Measurement of Economic Performance and Social Progress recommended **emphasising the household perspective**, in particular household income, consumption and wealth, including their distribution. This document is the report of the task force set up to analyse how the European statistical system could meet this challenge.

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<sup>1</sup> Available on Eurostat website at <http://epp.eurostat.ec.europa.eu> and on ESS website at [http://epp.eurostat.ec.europa.eu/portal/page/portal/pgp\\_ess/about\\_ess/measuring\\_progress](http://epp.eurostat.ec.europa.eu/portal/page/portal/pgp_ess/about_ess/measuring_progress)

## **Management summary**

Further to the recommendations of the Commission on the Measurement of Economic Performance and Social Progress<sup>2</sup>, the INSEE/Eurostat Sponsorship on ‘Measuring progress, wellbeing and sustainable development’ gave a mandate to a specific task force to work on ‘the household perspective and distributional aspects of income, consumption and wealth’ (‘TF-HP’).

TF-HP structured its activities around four themes:

- A. Better promoting existing National Accounts data on household income and consumption;
- B. Providing information on the distribution of household income, consumption and wealth;
- C. Encouraging the compilation of balance sheet accounts for households;
- D. Broadening income measurement to non-market domestic activities and leisure time.

The task force set ambitious objectives that will realistically not be met without additional resources. The report therefore gives some estimates of the resources needed.

The main conclusions and recommendations of the task force are summarised in the following.

### ***A. Better promoting existing National Accounts data on household income and consumption***

*Aim:* To use existing National Accounts data to better reflect the evolution of the material living standards of the ‘average household’. To extend income and consumption aggregates to include the measurement of in-kind services provided by government and thus improve the comparability of household aggregates across countries with different social organisation and/or sizes of government. To propose a standard news release on households, with a special focus on income and consumption and their most relevant components.

*Conclusions:* Most of the data are available under the current ESA transmission programme. However, in most countries, there is little or no attention to this type of data in National Accounts publications. In this report, recommendations are made for a standard presentation that would be suitable for all European countries and as such ensures maximum comparability. Special attention has been devoted to the simplification of the national accounts vocabulary to be used in headlines and general publications. However, for clarity, simplified labels should always be bridged with the precise SNA/ESA categories as done through this document.

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<sup>2</sup> <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>.

*Recommendations:*

- Annual data should refer to the actual households sector (S.14), whereas quarterly data may be shown for the combination of households + non-profit institutions serving households (S.14 + S.15). Member States compiling data for the combined sectors only could be asked to provide the split, for annual data, as of September 2014 (revised ESA Transmission Programme).
- Annual and quarterly data on actual individual consumption should be provided *in volume* terms and broken down, at least for annual data, by ‘Durable goods’ (cars, home appliances etc.); ‘Food and non-alcoholic beverages’ (COICOP01); ‘Housing, water, electricity, gas and other fuels’ (COICOP04); ‘Other non durable goods’ and ‘Social transfers in kind’ (*i.e.* goods and services financed by government in education, health etc.). They should be deflated using the price indices compiled in the National Accounts framework for each of the above-mentioned categories.
- Household adjusted disposable income should be shown in nominal and real terms. It should be calculated gross of consumption of fixed capital (NA concept for depreciation) for quarterly data and in both gross and net terms for annual data. Income should be broken into (1) labour income (wages and salaries); (2) income of self-entrepreneurs; (3) capital income (including real and imputed rents); (4) social benefits and transfers in kind (and other current transfers) and (5) taxes and social contributions (compulsory contributions). Capital income should include both property income and the gross/net operating surplus to capture the imputed income from owner-occupied dwellings. Gross/net mixed income should be compiled separately as a measurement of self-entrepreneurs’ income.
- For international comparisons, special focus should be given to annual data on household adjusted disposable income per consumption unit, in real terms using purchasing power standards (PPS) as deflators.
- Quarterly headline figures should focus on individual consumption expenditure, referred to as ‘household consumption’, and on gross disposable income labelled as ‘household income’ although data on social transfers in kind should also be made available. Household income and consumption should be calculated per consumption unit or at least per head. The gross saving rate should be derived from individual consumption expenditure and gross disposable income with the latter being adjusted for the change in net equity of households in pension funds reserves. Quarterly data should be adjusted for calendar / seasonal effects.
- Annual data should be provided both in gross and net terms, with / without adjustments for social transfers in kind and calculated per consumption unit or at least per head.
- The task force on quarterly accounts by institutional sectors (‘QSA’) is asked to continue its work to harmonise the treatment of quasi-corporations across countries, in both the financial and non-financial accounts.
- The gross recording of household liabilities, in particular for mortgage loans, is to be further researched with a view to calculating saving rates net of capital redemptions.

### *List of key indicators*

A template (mock-up) for a standard presentation of the quarterly data is included as Annex 1 to this report. It is based on the following list of key indicators:

1. Individual consumption expenditure, in volume, per consumption unit
2. Gross disposable income in real terms, per consumption unit
3. Gross saving rate
4. Decomposition of the actual individual consumption into: ‘Durable goods’ (e.g. cars, home appliances), ‘Food<sup>3</sup>’, ‘Housing including energy<sup>4</sup>’, ‘Other non-durable goods’ and ‘Social transfers in kind’.
5. Decomposition of the gross adjusted disposable income into: (1) labour income (wages and salaries); (2) income of self-entrepreneurs; (3) capital income (including real and imputed rents); (4) social benefits and transfers in kind (and other current transfers) and (5) taxes and social contributions (compulsory contributions).

For international comparisons, special focus should be given to annual data on household adjusted disposable income per consumption unit, in real terms using purchasing power standards (PPS) as deflators.

**The taskforce considers that the above list of indicators should progressively become the headline figures in the EU, when communicating on household income and consumption. As soon as available, they should appear in the headline publication of quarterly and annual national accounts, at least with the same status as the key indicators used so far, and at best replacing them (as proposed in the template). They should be available at least annually, for Member States below 1% of the EU GDP<sup>5</sup>, and quarterly for the other countries.**

### *Resource implications*

This ambition depends more on willingness to change the existing communication lines than on extra resources. A few extra resources are needed though, in Member States and at Eurostat (consumption units), as follows:

- For the split between Households (S14) and Non-profit institutions serving households (S15) in cases where it is not available yet;
- To compile and publish (quarterly / annual) data on the number of consumption units;
- To compile separate data for self-entrepreneurs (mixed income) within the household sector.

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<sup>3</sup> More precisely, COICOP01: ‘Food and non-alcoholic beverages’

<sup>4</sup> More precisely, COICOP04: ‘Housing, water, electricity, gas and other fuels’

<sup>5</sup> These differentiated reporting obligations have been set by Regulation (EC) 1161/2005 on the transmission of quarterly non-financial sector accounts and should be carried over in the revised ESA2010 transmission programme.

## **B. Providing information on the distribution of household income, consumption and wealth**

*Aim:* Average income, consumption and wealth are meaningful statistics, but they do not tell the whole story about living standards. For example, a rise in average income could be unequal across income groups, leaving some households relatively worse-off than others. Thus, average measures of income, consumption and wealth should be accompanied by indicators that reflect their distribution across households. Ideally, such information should not come in isolation but be linked, i.e. one would like information about how well-off households are with regard to all three dimensions of material living standards: income, consumption and wealth.

*Conclusions:* There is much data available in all EU Member States and many ideas on how to match them into new distributional statistics. Much work is in progress: by the UNECE/Canberra group on definitions of household income, by the OECD Expert Groups on combining household survey data with national accounts data and on developing a framework for the analysis of the joint distribution of income, consumption and wealth, and by Eurostat on the benchmarking of social statistics (EU-SILC mainly) on National Accounts concepts and data.

*Recommendations:*

- Set up a joint Eurostat/OECD technical expert group to implement this project in EU and non-EU countries (*Done*).
- Use adjusted disposable income as the reference concept for both social statistics and national accounts data. As a first step, limit adjustments for social transfers in kind to publicly-provided education and health services.
- Work in parallel on (1) '*a minima*' matching exercises based on the (harmonised) data available at Eurostat and (2) national pilot studies that take advantage of the full information available at that level.
- Provide a breakdown of income, consumption and saving rates by a number of categories, such as standard of living (i.e. adjusted disposable income per consumption unit); age of the household reference person (e.g. member with the highest income) and household composition.
- Once the methodology is established, publish annual data on the distribution of income and consumption.
- In a second step, extend the exercise (1) to have reliable estimates for income/consumption growth by household category and (2) to wealth distribution.
- Consider the possibility of an EU regulation for the Household Budget Survey / adding (key) variables to SILC in order to better measure social transfers in kind at the individual level.
- Consider the possibility of collecting additional National Accounts data (annual sector accounts) to better match them with micro-data on income. This may concern for instance mixed income (B3), gross interest before FISIM allocation (D41G) and withdrawals from the income of quasi-corporations (D422).

### *List of key indicators*

The following list of indicators should be promoted EU-wide:

1. Adjusted gross disposable income for different categories of households (e.g. standard of living, age of household reference person and household composition), per consumption unit.
2. Actual individual consumption for the different categories of households, per consumption unit.
3. Gross saving rate for the different categories of households.

**The taskforce considers that the above list of indicators should be available as of 2020 and updated every ten years minimum.**

### *Resource implications*

Extra resources are needed (1 Full Time Equivalent in the first few years, less when the process is functioning on a routine basis) in each Member State and at Eurostat to match social statistics with National Accounts totals and compile distributional data on household (adjusted) income and (actual) consumption on a regular basis.

### ***C. Encouraging the compilation of balance sheet accounts for households***

*Aim* (highlights from Stiglitz/Sen/Fitoussi recommendations): A vital indicator of the financial status of a firm is its balance sheet and the same holds for households. To construct the balance sheet accounts for households, we need to have comprehensive accounts of their assets (mostly dwellings and land) and their liabilities. The availability of balance sheets is still limited and their construction should be encouraged. Note that measuring wealth is also central to measuring sustainability. What is carried over into the future necessarily has to be expressed as stock, whose correct valuation is crucial.

*Conclusions:* Within the ESA transmission programme, data on financial balance sheets are readily available except for unfunded pension entitlements which should be collected through the revised ESA transmission programme. The situation on one of the main non-financial asset of households, dwellings, is improving rapidly. Information on other non-financial assets is scarce as their transmission is voluntary. Data on the value of land, in particular 'land underlying buildings and structures' would be instrumental to analyse housing bubbles and to relate debts (mortgages) to the value of households' (main) non-financial assets. For this purpose, it is important to value dwellings and land at market prices instead of current purchasers' prices written down by the accumulated consumption of fixed capital.

### *Recommendations:*

- Increase the coverage of the assets. A gradual approach could be recommended for Member States, starting with the compilation of assets which are particularly relevant for households: 'Dwellings'; 'Land' and in particular 'Land underlying buildings and structures', which should be available by 2014. The sector breakdown of most non-financial produced assets should be transmitted by 2017.

- Improve timeliness. The deadline for data transmission proposed until now, i.e. 24 months after the reference year, is not acceptable in the long run. As estimates of the capital stock for S1 (total economy) in most countries are available at t+9 or t+12 months, the TF recommends collecting (a selection of) household non-financial assets at t+12 months as of 2017.
- Insist on the market valuation of dwellings and land, as recommended in ESA95 §7.33 and §7.40, instead of current purchasers' prices written down by the accumulated consumption of fixed capital;
- Consider collecting, annual stock data on consumer durables which are relevant for the analysis of household wealth;
- Increase the comparability of estimates across countries, e.g. by harmonising the delineation of the household sector and of the main asset categories;
- Organise a workshop on the compilation of non-financial assets by sector, in particular households' dwellings and land.

*List of key indicators*

The following list of indicators should be promoted EU-wide:

1. Household gross debt (F4/loans) as a proportion of their gross disposable income
2. Value of household assets in 'Dwellings' (AN. 111) and 'Land' (AN. 211) as a share of their gross disposable income
3. Household wealth (net financial wealth + assets in dwellings and land) as a share of their gross disposable income

**The task force considers that the above list of indicators should become the reference in the EU when communicating on household material wealth. They should be available annually, at t+12 months, as of 2017.**

*Resource implications*

Extra resources are needed (in Member States) to compile / improve data on households' dwellings and land.

At Eurostat, ½ administrator post and ½ assistant post would be required to foster/coordinate methodological developments and process / publish non-financial assets data.

**D. Broaden income measurement to non-market domestic activities and leisure time**

*Aim:* although leisure time is part of wellbeing, and can be captured through e.g. Time Use Surveys (TUS), it falls outside the scope of national accounts which aim at recording production, expenditure and income. On the other hand, many services that households produce for themselves are not recognised in official income and production measures, yet they constitute an

important aspect of economic activity. Such own-account production should be accounted for, to the extent that it spares households the buying of equivalent goods and services. This could start with collecting information on the value of such production that would feed the periodic dissemination of households' satellite accounts.

*Conclusions:* The main complication for the work of the task force is the lack of regular data on time use. The situation between the Member States is very different. Information from Time Use Surveys (TUS) is useful far beyond National Accounts needs for the compilation of household satellite accounts. TUS can provide key information on wellbeing in general, in particular the split between working time (including travel-to-work) and leisure. From this point of view, running a TUS every 10 years at least, in all Member States and in accordance with international standards is advisable, although it goes beyond the mandate of the 'Household perspective' task force. Conversely, the usual comprehensive TUS are not the only tool to estimate the non-market activities of households. More frequent, and lighter, household surveys could represent an alternative if they include questions such as: 'Which activities have you decided to carry-out yourself instead of paying for it?'; 'How much would it have cost had you not decided to do it yourself?' and (as a plausibility check) 'How much time have you spent on them?'

*Recommendations:*

- Promote the international harmonisation and coordination of Time Use Surveys (TUS) as one possible basic source for estimates on domestic non-market activities. TUS should be conducted at least every ten years, starting in 2020;
- Investigate the availability and suitability of alternative/complementary sources on non-market domestic activities such as household budget surveys;
- Create a pilot group of experienced countries to propose a common (European) approach in compiling household satellite accounts;
- Compile household satellite accounts, with harmonised methodology, every ten years as of 2020.

*List of key indicators*

The following list of indicators should be promoted EU-wide, with a decennial frequency:

1. Actual household individual consumption including non-market domestic activities, per consumption unit
2. Adjusted household gross disposable income including imputations for non-market domestic activities, per consumption unit
3. Household gross and net saving rates adjusted for non-market domestic activities

**The taskforce considers that the above list of indicators should be available as of 2020 and updated every ten years minimum.**

*Resource implications*

Extra resources are needed by Member States to run Time Use Surveys every ten years minimum (about €1-2 million each) and/or collect (lighter) information through other (annual) household surveys.

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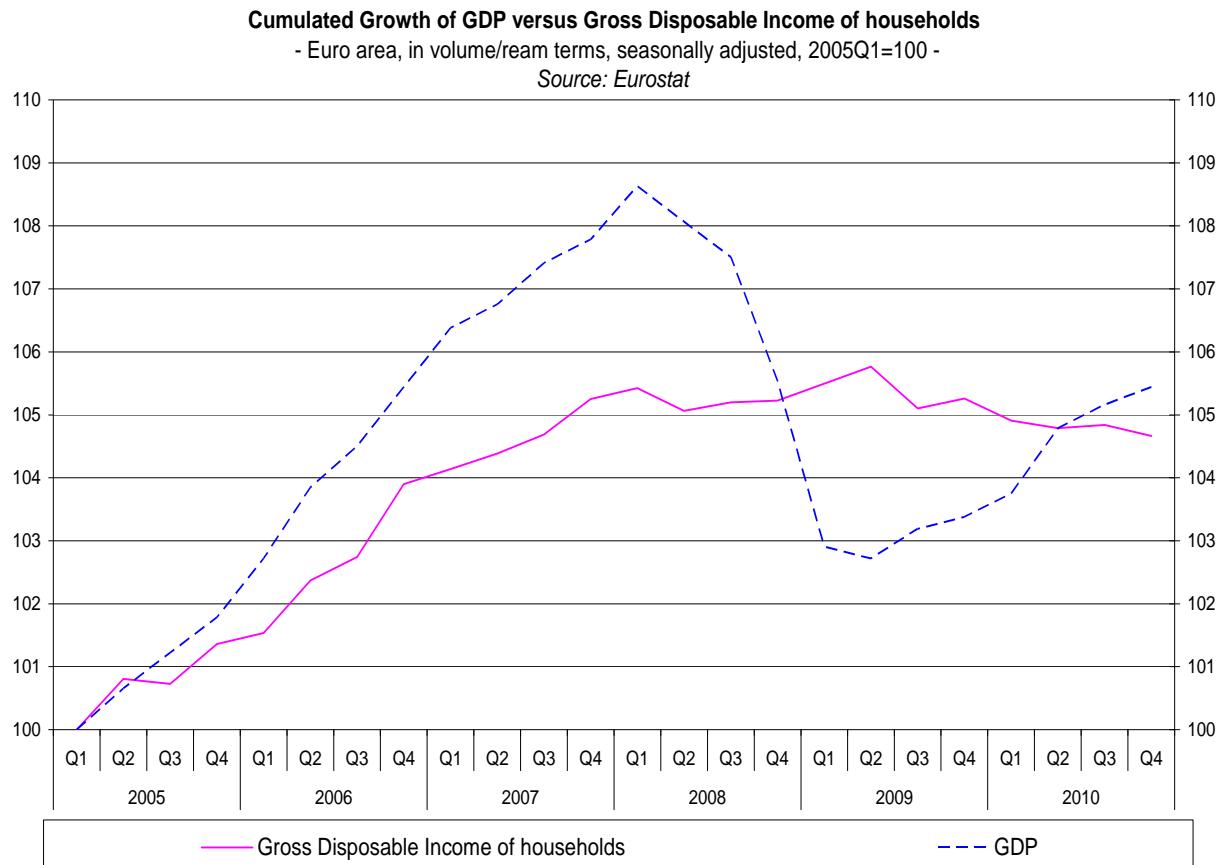
## INTRODUCTION

The first five recommendations of the Commission on the Measurement of the Economic Performance and Social Progress address how economic statistics could better reflect households' welfare, i.e. how their material needs and wants are fulfilled on average but also by category of households.

The need to measure progress better is also emphasised in the Commission Communication 'GDP & beyond', and reiterated in the EU-2020 strategy adopted by the European Council in June 2010.

A joint INSEE/Eurostat Sponsorship group on 'Measuring progress, wellbeing and sustainable development' was set up in 2010 to analyse and promote multidimensional measurement of sustainable development. Four task forces were mandated by this group to study the feasibility of the Stiglitz/Sen/Fitoussi recommendations one of which, the task force 'Household Perspective' (TF-HP), focuses on measuring material wellbeing.

To illustrate the importance of better promoting data on the household sector, the chart below plots the cumulated growth, since the first quarter of 2005, of GDP volumes and of household gross disposable income in real terms. Household gross disposable income is deflated by the price index for the final consumption expenditure of households.



The chart shows that at the early stages of the 2008/2009 economic downturn, household income was hardly affected by the crisis. In the euro area, household gross disposable increased by 0.4 % between the first quarter of 2008 and the second quarter of 2009 whereas GDP volumes fell by 5.3 %. Household income then decreased while GDP resumed growth until both reached the same level of cumulated growth (base 2005Q1 = 100) by the second quarter of 2010.

The task force on ‘household perspective and distributional aspects of income, consumption and wealth’ (‘TF-HP’) brought together delegates from eight countries (Austria, Bulgaria, Denmark, France, Germany, Italy, the Netherlands and Portugal) and four international organisations: UNECE, OECD, ECB and Eurostat.

TF-HP has worked from July 2010 to May 2011 and has met three times, focusing its activities around the four themes within its mandate, namely:

- Better promoting existing National Accounts data on household income and consumption
- Providing information on the distribution of income, consumption and wealth
- Encouraging the compilation of balance sheet accounts for households
- Broadening income measurement to non-market domestic activities and leisure time

Each of these four themes is explored in the following chapters.

## **I. BETTER PROMOTING EXISTING NATIONAL ACCOUNTS DATA ON HOUSEHOLD INCOME AND CONSUMPTION**

### **I.1 Objectives**

Among recommendations aimed at improving the measurement of wellbeing, the Stiglitz/Sen/Fitoussi report includes the following: ‘While it is informative to track the performance of economies as a whole, trends in citizens’ material wellbeing are better followed through measures of household income and consumption.’<sup>6</sup> In practice, different paths may be followed to implement this recommendation. One idea is to look at existing National Accounts data on households’ income and consumption and re-focus / rearrange them to better emphasise the household perspective as explored in the next paragraphs.

### **I.2 Possibilities and limits**

Regarding the availability of data on net disposable income and on actual consumption, the situation in the Member States (MS) participating in the task force ‘household perspective’ may be summarised as follows:

- a) Net Disposable Income (NDI):
  - Annual and quarterly data on nominal NDI for the economy (B6.n) are required by the ESA transmission programme, and hence are provided by all participating MS. Annual NDI figures in real terms for the economy as a whole are compiled by most participating MS (AT, DE, IT, NL). Quarterly real NDI data are available in AT, IT and NL;
  - For the household sector, annual and quarterly data in nominal terms are available for all participating MS, but in the case of AT, DE and DK, the data refer to the combined sector S. 14 + S. 15. Annual real terms NDI-data for the household sector are produced by IT, as well as DE and NL (both for S. 14 + S. 15). The compilation of quarterly real terms NDI-data seems not to be very common (IT, NL for S. 14 + S. 15);
  - The publication of quarterly NDI per household/consumption unit is exceptional. Annual and quarterly nominal data are compiled by FR and NL as well as on a non-regular basis by DE. Annual and quarterly real NDI per consumer unit are published by NL for S.14+S.15.
- b) Actual consumption
  - Annual and quarterly data on household actual consumption, both in nominal and volume terms, are required by the ESA transmission programme and provided by all participating MS. Both nominal and real data for DE and DK, as well as volume data for NL refer to the combined sector S. 14 + S. 15 (which is the same as for S.14 alone).

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<sup>6</sup> Recommendation 2, page 13.

## I.3 Recommendations

### I.3.1 Sector delineation

The delineation of the household sector in the national accounts of the Member States is the first issue to consider given its possible impact on comparability. For some Member States, the statistical basis does not yet seem sufficient to produce high quality data on the genuine household sector (S.14). At the global level, out of the 16 countries that provided sector accounts data to UNECE in 2010, 10 transmitted annual data on the household sector (S14) separately. The others transmit data for the combined sector: households and non-profit institutions serving households (S.14 + S.15). Therefore, the treatment of quasi-corporations should be harmonised across countries so that self-entrepreneurs are treated in a comparable fashion across countries.

*Recommendation:* Annual data should refer to the genuine household sector (S.14), whereas quarterly data may be shown for the combined sector S.14 + S.15. Member States producing data for the combined sector could be asked to speed up efforts in order to separate S14, at least for the annual aggregates to be published, by September 2014 possibly. Moreover, the task force ‘quarterly accounts by institutional sectors’ (‘QSA’) is asked to continue work on harmonising the treatment of quasi-corporations across countries.

### I.3.2 Household income

#### *Types of disposable income*

The income available to a household usually determines its choices on consumption and saving. To analyse income levels and changes, we need to distinguish between (1) labour income (wages and salaries); (2) income of self-entrepreneurs; (3) capital income (including real and imputed rents); (4) social benefits and transfers in kind (and other current transfers) and (5) taxes and social contributions (compulsory contributions). From the perspective of households, all these types of income improve the economic situation, although there are important differences from the economic point of view. Labour income includes all wages and salaries including in kind benefits. The income of self entrepreneurs mixes labour and capital income and should then be shown separately, also because the beneficiaries are a separate household category. The third income category, namely capital income, includes interests; dividends; withdrawals etc. which are now recorded under ‘property income’. TF members considered that it should also cover income generated by letting dwellings including for owner-occupiers. This would imply measuring the operating surplus of ‘consumer households’, separately from the mixed income of self-entrepreneurs, and reclassifying it as property income. The fourth income type, transfers, mainly consists of social benefits including pensions, students’ grants, unemployment benefits or social assistance.

#### *Treatment of social transfers in kind*

Another issue is how to deal with social transfers in kind. In most countries, governments and/or social security provide certain types of goods and services to their citizens, either free of charge or at subsidised prices. These in-kind services implicitly increase the income of the households benefitting from them. But the mix of publicly provided and private purchased services often differs from one country to another (or over time in the same country); further, social security systems often differ across countries as well. Therefore, it is important to take government-provided transfers in kind into account when comparing household data across countries or over a long time span. In national accounts, in-kind services are captured by the aggregate called

‘adjusted household disposable income’. It is proposed to include these social transfers in kind under the fourth category above (transfers).

*Recommendation:* household income should be broken down into (1) labour income (wages and salaries); (2) income of self-entrepreneurs; (3) capital income (including real and imputed rents); (4) social benefits and transfers in kind (and other current transfers) and (5) taxes and social contributions (compulsory contributions). Capital income should include revenue from letting dwellings, both actual and imputed. Household income should be calculated gross of consumption of fixed capital (quarterly data) and in both gross and net terms (annual data).

### I.3.3 Household consumption

#### *Breakdown of actual consumption*

Final consumption may be considered as the focal point of material living standards. Human material needs and wants are satisfied by consuming goods and services. As (private) consumption expenditure represents by far the biggest expenditure category in most countries, it would seem appropriate to present developments in this aggregate broken down by several categories of consumption expenditure, namely durable goods (*e.g.* cars and home appliances), food and beverages, housing including energy and ‘other non-durable goods’. Finally, ‘social transfers in kind’ should be shown as part of ‘actual individual consumption’ to improve the comparability across countries and over time and be consistent with ‘adjusted disposable income’.

#### *Further ideas*

A further refinement is published by the French statistical office (INSEE), distinguishing between ‘pre-determined’ and other expenditure. Pre-determined expenditure refers to expenditure such as rent and insurance contracts which, due to long-term commitments, cannot be changed easily in the short run. Since the pre-determination depends on the time length, it seems logical that there should be a difference in how this category of consumption expenditure is treated between quarterly and annual figures. However, due to the fact that this concept is not harmonised at EU level nor included in the ESA transmission programme, it is considered premature to make it a standard practice.

Another idea is to include in consumption only the service of consumer durables. Consumer durables such as motorcars, washing machines or computers may be used over several years whereas national accounts record them as being consumed completely in the period of purchase. One could envisage allocating to each year the respective share of the total value of the consumer durable. This is similar to the treatment of investment goods for producers. However, this would require some information for each consumer good on the period of purchase as well as its service life, which is not available in most countries.

*Recommendation:* Consumption expenditure should be broken down, at least on an annual basis, by: durable goods, food and beverages, housing including energy, ‘other non-durable goods’ and ‘social transfers in kind’.

### I.3.4 Price changes

The usual starting point is to show income and consumption at nominal prices. However, to be closer to the household perception, it is advised to give prominence to (adjusted) income and (actual) consumption data in real terms. Indeed, price increases lead to a loss in the purchasing

power of income. Moreover, comparing income over time may lead to biased results if price developments are not taken into account. This is also true in international comparisons, at least when inflation rates differ across countries. It is then advised to show consumption and income developments in volume. As for the price index to be used, the two main candidates are the (harmonised) consumer price index and the implicit index of final consumption from national accounts. Despite the possible influence of FISIM calculations, it is advised to use the latter so that nominal values and the corresponding deflator are calculated within the same (NA) framework. Each component (durables, food, etc.) including social transfers in kind should be adjusted by the appropriate deflator.

Purchasing Power Standards (PPS) are also an option, for annual data, although they better suit cross-country comparisons than national publications. It is useful to note that PPS are also available for adjusted income, i.e. including social transfers in kind.

*Recommendation:* Household (adjusted) income and (actual) consumption should be presented in real/volume terms using the (national accounts) implicit deflator for household consumption expenditure, and by components. Price developments should be shown as well, before turning to the analysis of income components in nominal terms (see standard news release presented in Annex 1). For international comparisons, purchasing power standards (PPS) should be used.

### I.3.5 Household savings

Saving in general terms is the difference between income and consumption. However, as SNA/ESA records net pension benefits as a part of income (see § I.3.2.1), a correction<sup>7</sup> is made to offset the impact of net pension contributions on income when computing savings. Indeed, net pension contributions increase the financial assets of households and should then be considered as saving (that is – strictly speaking – a use of income and not an income component). Furthermore, saving should be presented on a net basis, *i.e.* after deducting capital consumption. From an economic point of view, the net concept is usually preferred, because the cost of using capital goods (mainly dwellings) is deducted. On the other hand, the gross saving rate is more widely used in short-term analyses. It is therefore proposed to highlight gross savings in quarterly publications whereas annual releases should provide both gross and net savings.

For a large proportion of households that have loans to pay back, part of their savings is earmarked for capital redemptions. In particular, in countries where mortgage loans related to housing investment reached considerable amounts, a significant part of household disposable income is assigned to capital redemptions. Household decisions on how to use their disposable income are likely to be affected by these forced savings. It would then be relevant to collect data on the repayments of capital with respect to household mortgages. The savings that remain after deducting these repayments are probably perceived by households as more relevant for their spending decisions. This would require differentiating, within financial accounts, the decrease in liabilities from their increase whereas the current recording is done on a net basis. This would require additional data and can only be recommended in the medium to long run.

*Recommendation:* The quarterly saving rate should be presented on a gross basis whereas annual data should provide both gross and net figures. The gross recording of change in household liabilities, in particular for mortgage loans, is to be further researched with a view to calculate saving rates net of capital redemptions.

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<sup>7</sup> D8: change in net equity of households in pension fund reserves.

### I.3.6 Size and composition of population

Another issue is to avoid biased results due to differing size of countries, *i.e.* of their populations. This is obvious in the case of international comparisons of countries with a different population number. But it also applies to comparisons over (a long) time, where the population of a country may change substantially. As supplementary information it is therefore necessary to relate consumption expenditure to the population concerned, in order to provide a better insight into material living standards in the sense of the supply of goods and services to individual households. Data on consumption expenditure per head are a very common way to neutralise differing population sizes. Another possibility is to show figures per household, given that the household is the decision unit in national accounts. However, since the size of a household may differ substantially over time and across countries a presentation of income and consumption by consumption unit is deemed useful. Consumption units are calculated on the basis of the following formula:

$$\begin{aligned}\text{No of consumption units} = & \text{ no of households} \\ & + (\text{no of adults} - \text{no of households}) \times 0.5 \\ & + \text{no of children} \times 0.3\end{aligned}$$

They are used to equivalise the income earned by households of different size and composition.

*Recommendation:* Household consumption and disposable income should be compiled/published per consumption unit.

### I.3.7 Quarterly publication

In addition to annual data, the TF proposes to strengthen the household perspective by producing and publishing quarterly data for the (combined) household + NPISH sector. In the case of quarterly data, the focus should be on evolutions rather than levels. The aim is to limit the response burden without reducing the relevance of the data. For this purpose, such quarterly data should concentrate on a few important key aggregates like gross disposable income, final consumption expenditure and the (derived) gross saving rate. The evolution of adjusted income / actual consumption should be also available / commented albeit not in the headline figure. It must be noted that the visibility of household data, and their use for policy making, has much to gain from quarterly releases. This is even more the case if data are published after adjusting for seasonal / calendar factors, together with information on the contribution of various components to the growth of income and consumption respectively.

*Recommendation:* Quarterly data for households should concentrate on the evolution of a few key aggregates such as gross disposable income, its main components, and final consumption in volume, together with the (derived) gross saving rate. Data should be seasonally/calendar adjusted with (nominal) income growth broken down by various components. In publications aimed at a wide audience, the National Accounts ‘jargon’ should be replaced by a less specialised vocabulary taken from e.g. the general economic literature (see a comprehensive proposal in Annex 1). Such quarterly publications should be available at least in all Member States whose GDP is above 1 % of the EU total<sup>8</sup>.

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<sup>8</sup> These differentiated reporting obligations have been set by Regulation (EC) 1161/2005 on the transmission of quarterly non-financial sector accounts and should be carried over in the revised ESA2010 transmission programme.

## **II. PROVIDING INFORMATION ON THE DISTRIBUTION OF INCOME, CONSUMPTION AND WEALTH**

### **II.1 Objective**

As underlined by the DGINS in the Sofia Memorandum, ‘there is a strong need to reconcile National Accounts (NA) aggregates with household survey data, to better capture distributional aspects in our societies’. The objective is then to use household surveys to provide macro-economic information on the distribution of income, consumption and wealth.

Although average income, consumption and wealth are meaningful statistics, they do not tell the whole story about living standards. For example, a rise in average income could be unevenly distributed across population groups, leaving some households relatively worse-off than others. Thus, average measurements of income, consumption and wealth should be accompanied by indicators that reflect their distribution across households. Ideally, such information should not come in isolation but be linked, i.e. one would like information about how well-off households are with regard to all three dimensions of material living standards: income, consumption and wealth.

The medium-term objective that NSIs should focus on can be summarised in the following terms:

*Publishing at least every ten years a satellite account ‘for the households sector where households’ accounts as described by national accounts (main sources of revenue: labour income, social benefits, property income / main uses: taxes, social contributions, consumption split by main products and/or functions / saving / balance sheets: financial and non-financial assets and liabilities) are disaggregated by several categories of households (by age, by household composition, by level of standard of living etc.)*

This can only be a medium-term objective, because it requires:

- the production of additional basic statistics both at micro and macro level;
- much closer cooperation between specialists in households surveys and national accountants, within statistical institutes, at national and international levels;
- the development of methodologies and methodological guidelines.

The following report presents the current options and makes some concrete recommendations to help establish a work programme. Preliminary experimental results could be expected by the end of 2012, provided NSIs and Eurostat devote sufficient human resources to the project.

### **II.2 Possibilities and limits**

#### **II.2.1 Micro-data**

In any given country, incorporating distributional information into the household sector account as published by NA requires access to micro information on households. Depending on the country, these micro data may come from administrative sources and/or household surveys.

Although our emphasis here has been on household surveys, this does not preclude the possibility of a country using administrative data.

At EU level, micro-data on household income and consumption mainly come from Statistics on Income and Living Conditions (EU-SILC) and Household Budget Surveys (HBS). They are collected for private households, i.e. excluding people living in institutions.

SILC data are transmitted to Eurostat according to a set of EU Regulations. It comprises both a set of permanent variables (e.g. income variables) collected every year and some variables which are collected on an irregular basis in the form of an ad-hoc module. SILC data are collected for both households and individuals, where (cross sectional) income data for year Y are generally transmitted to Eurostat by November Y+2 and become available for scientific purposes in March Y+3. The current definition of income excludes rents for owner-occupied dwellings and most of social transfers in kind (housing benefits, which are considered as a social transfer in kind in NA, are included in the SILC definition of income).

There is no EU Regulation for the Household Budget Survey. Data are generally collected every 5 years with data for year Y being transmitted to Eurostat in December Y+2 and released in April Y+3. The data show consumption expenditure (mainly) and income. HBS covers the consumption of residents, and the income definition used excludes social transfers in kind.

Most ways of reflecting the distributive impact of these publicly-provided services/goods rely on indirect methods that attribute to households with different characteristics a share of the total expenditure on these services/goods (based on either household actual use of the services/goods, as in the case of education; or on the characteristics of individuals, e.g. based on the assumption that the probability that a person will access health services is the same as that for other people with the same demographic characteristics).

Such methods require data on the supply side, to estimate the cost of each category of services/goods (e.g. cost of high school education, cost of a given surgical operation, cost of the medication for a specific illness) and micro-data (from either household surveys or administrative records) on the use of publicly-provided services/goods.

As far as education services are concerned, average costs by level of education could be estimated on the basis of the joint UNESCO-UIS/Eurostat/OECD survey conducted by gentlemen's agreement. However, micro-data collected through SILC do not distinguish between private / public education and therefore do not allow measuring the corresponding benefits in kind at the individual level.

Regarding health, the European Health Interview Survey (EHIS) carried out on a gentlemen's agreement basis could provide estimates on the consumption of health care/services. However, these data are not suitable for individual imputation for the following reasons:

- no direct information is available on the sector financing the health care/services (General Government or private);
- health care received by individuals aged less than 15 is not surveyed because they are outside the scope of EHIS;
- the EHIS was conducted one-off, on a gentlemen's agreement basis, and only 18 countries out of the 27 EU Member States participated; the data were collected for different reference years, ranging from 2006 to 2010 depending on the country.

For the above reasons, the imputation of social transfers in kind cannot be done in the short/middle term but at the country level ('national pilot studies') where more information may be available. The (next) EU study should then focus on (non-adjusted) gross disposable income and final consumption expenditure.

With regard to survey information on wealth, the ECB coordinates the Euro Area Household Finance and Consumption Survey (HFCS), which is being conducted in the 17 euro area countries. The structural foundation of the survey is described in a Manual of Procedures approved by the ECB Governing Council in April 2010. Fieldwork for the first HFCS wave took place in 2010. Given the time required to edit and impute this comprehensive micro-dataset, the preliminary results are not expected until 2012.

Eurostat and the ECB are currently studying the feasibility of statistically matching HFCS, EU-SILC and HBS micro-data, so that detailed data for the three areas of interest (income, consumption and wealth) could be available in a single, still synthetic, dataset.

At the global level, a UNECE taskforce is updating the previous (2001) edition of the Canberra Group Handbook on Household Income Statistics with a view to expanding the definition of income measurement and achieving greater harmonisation of concepts and measurements across countries.

## II.2.2 Macro-data

Every EU country publishes detailed household sector accounts, including disposable income, consumption expenditures and transfers in-kind provided by general government (GG). Most countries distinguish the households' sector from the NPISH sector.

However, when it comes to household balance sheets, many countries do not yet provide complete balance sheet accounts. As far as non-financial assets are concerned, EU priority is given to providing estimates at least for dwellings.

The conclusion is that, due to the lack of data on households' wealth both at both micro and macro levels, priority should be given to integrating information on the distribution of income and consumption items. As a result, the remainder of this document will mostly focus on those two areas. Nevertheless, conceptual work should continue in parallel towards establishing a single methodology covering all three areas (income, consumption and wealth). The two expert groups recently established by the OECD, in cooperation with Eurostat, may prove instrumental to this aim.

## **II.3 Recommendations**

### **II.3.1 Set up a technical expert group**

The national studies already conducted (see Annex 2) suggest that a lot could be gained by (i) mobilising professional expertise both on national accounts data and on household survey micro-data; and (ii) using all available sources of micro-information.

It is also obvious that:

- only a small number of European countries will be prepared to put significant human resources into a joint international project of this kind;
- national expertise on national macro- and micro-data, and access to them in full detail, might considerably enhance the quality of the results obtained as compared to an exercise led by statisticians from international organisations.

For these reasons, the optimal set-up is the creation of an international expert group to identify the best methodology to break down the household sector account by categories of households. Only those NSIs prepared to devote a minimum level of human resources to the project should participate in this expert group, with specialists on either national accounts or household surveys, or, ideally, both. *As both EU and non-EU countries have an interest in such a project, an expert group has recently been launched jointly by Eurostat and OECD.*

The detailed methodologies to break the household account down into categories will be studied by the OECD-Eurostat expert group. However, this task force on ‘Household perspective’ has a number of recommendations in terms of scope, concepts and data sources, based on European experiments that the OECD/Eurostat expert group will analyse and further develop (§3.2 to 3.7).

### **II.3.2 Definition of income and consumption**

Given the major conceptual differences in the definition of household income and consumption between macro-data (household account in national accounts) and micro-data (household surveys), the two sources could be reconciled in two different ways:

- defining an additional income concept, within the national accounts, that is closer to the perceptions of households (e.g. excluding or capping imputed rents), before using existing microdata to capture distributional aspects;
- sticking, as much as possible, to the macro-figure, and adapting the micro-data to get closer to the national accounts framework.

The second solution should be the one to be pursued by the expert group, the final goal being to give more credibility to the macro-figures, by offering distributional information (in addition to country-average values) and bringing discussions on inequalities to the attention of economics and finance ministers. Building on SNA aggregates, Annex 2 presents a list of potential components that could be of interest for the breakdown.

However, the two approaches are not necessarily incompatible. Concrete proposals for alternative definitions that do not directly correspond to NA aggregates should be discussed by the OECD-Eurostat expert group. Those additional aggregates might consist either in designing a disposable income concept that excludes some SNA components, or in building other sub-aggregates to analyse redistribution (see Box 1 for an example). If the OECD-Eurostat expert group considers this approach relevant, such additional aggregates should be defined precisely in line with the SNA framework (that is: using SNA operations and classifications).

**Box 1 — A concept of ‘income before redistribution’ in addition to the conventional NA aggregates**

Despite the emphasis given to disposable income as defined in the national accounts, the impact of redistribution by public policies cannot be analysed only through the distinction between NA ‘primary income’ and ‘disposable income’. Indeed, in national accounts, labour compensation to employees includes all social contributions paid by both workers and employers. Therefore, for example, both pension contributions and pension benefits are recorded in the secondary distribution of income account.

One could claim, for example, as is often done in the economic literature using household micro-data, that retired persons have a pension entitlement, and therefore that the pensions they receive should be considered as a source of revenue before any redistribution. The same reasoning could apply to unemployment benefits. In such a case, the analysis of redistribution policies would be limited to other social benefits (family benefits, social assistance, etc.) that are not linked to the earnings of the person when at work.

Therefore, an intermediate concept of ‘income before redistribution policies’, intermediate between primary income and disposable income, might be defined. Such an aggregate, although not existing in national accounts, could be defined as part of the national account framework, at least from a conceptual point of view. Indeed, SNA distinguishes social insurance benefits from social assistance benefits, and it also lists social benefits by type of risks (sickness, unemployment, retirement, etc.).

From a practical point of view, choices may depend on the nature (contributory or universal) of social benefits in different countries.

At this stage, data collected at EU level could only fit a concept of ‘income before redistribution policies’ at the micro level. However, some NA COFOG data that split social contributions and benefits by type of risks are transmitted to Eurostat. Besides, the revised ESA transmission programme (to come into force in 2014) will allow isolation of social contributions and benefits used for pensions when covered by social insurance and not social assistance. Anyhow, such a split will remain unavailable for unemployment contributions / benefits.

### **II.3.3 The scope of the exercise: ‘private households’**

As the focus of most distributive analysis is on private households, NPISH should be excluded from the scope of the study, whereas self-entrepreneurs should be included. This means that some macro imputations will have to be made for some countries that do not, for the time being, publish ‘pure’ household sector accounts.

Due to the fact that household surveys cover only ‘private households’, an estimate of the income and consumption of collective households (people living in communities) should be made and subtracted from the macro-economic figures referring to total household income and consumption expenditures.

When dealing with the disposable income of a given household, one should also take into account the private monetary transfers between households (such as child support and parent’s allowances to children who have left home to live on their own). These monetary transfers, when they pertain to transfers between resident households, are ‘netted out’ in the compilation of SNA macro figures. This is an additional difficulty that does not arise when dealing with the household sector account as a whole.

### **II.3.4 Work simultaneously on income and consumption**

Household surveys give some valuable insights into distributional aspects of income on the one hand, and of consumption on the other hand. However, such studies do not provide a coherent picture of the joint distribution of income and consumption. As a result, very little is known about the distribution of savings among national populations.

Therefore, one of the most important advantages of such a project would be analysing *at the same time* distributional aspects of income and consumption. This would provide some original insight into the distribution of savings among the population. It would also help to verify the quality of the estimates made. Indeed, as some imputations have to be made on micro-data, a range of hypotheses will have to be tested before choosing specific methods of imputation. Those choices will inevitably influence final results. In such a context, treating the distribution and consumption of income jointly would help to make better choices that deliver more credible estimates of savings.

Further improvements in the quality of estimates might be achieved in the future if information could be collected jointly on income, consumption and wealth.

### **II.3.5 Taking account of education and health public expenditures**

For international comparisons of household living standards, adjusted disposable income is the preferred concept. Therefore any project aimed at a breakdown by category of the household sector account should endeavour to treat not only disposable income and consumption expenditures, but also general government and NPISH individualised consumption expenditures.

As a first step, one could limit the scope of the study to the most important part of transfers in kind: publicly-provided education and health services. As far as education is concerned, the basic information would probably come from macro estimates of total outlays, which could be distributed among the population based on their use (enrolment) in various educational

institutions. As far as health services are concerned, different approaches could be used to allocate health government expenditures from macro sources among individuals with different characteristics.

As information on individual consumption of social transfers in kind is not available at EU level, these approaches could only be followed at country level.

#### II.3.6 Categories of households

The precise types of household categories to be used to break down the household account will be defined by the OECD/Eurostat expert group. They should include breakdowns by:

- level of standard of living (i.e. disposable income per consumption unit)
- age of the household reference person (e.g. member earning the highest income)
- household composition

#### II.3.7 Extend the exercise to changes over time as the second step

In the first step, the objective would be to build a household account by categories (income and consumption) for a benchmark year. The task of producing estimates over several years should be considered as a second step.

### II.4 Concrete output

The EU-OECD expert group has now been launched. It gathers 25 countries among which 13 European countries (12 belonging to EU27+CH). The first meeting of the EG has taken place in March 2011. This TF should engage in the following tasks:

- review the available household macro- and micro-data and their quality as assessed by each country;
- come to an agreement on methodological choices;
- perform alternative computations by using more micro information for countries participating to the expert group;
- compare results between countries and methodologies;
- in view of the results obtained, evaluate the possibility to produce internationally comparable guidelines for the compilation of these new ‘macro-micro’ statistics.

In parallel to the work of the EG, Eurostat decided to perform an ‘*a minima*’ exercise for all European countries using SILC for income, HBS for consumption. At a later stage, the exercise could be extended to wealth by using the HFCS for euro-area countries.

At the EU level it is not feasible to match macro-micro data on social transfers in kind, so the *a minima* exercise will be limited to the concepts of disposable income and final consumption expenditure. The alternative computation, on the basis of the additional information specific to the country, should aim to produce results for adjusted disposable income and actual final consumption.

In addition, within the European statistical system, two further steps should be taken to make it easier in the future to measure disparities of households' economic resources in a national accounts framework.

**- Consider introducing an EU Regulation for the Household Budget Survey / adding SILC variables.**

Currently, there is no EU Regulation for the Household Budget Survey. If the results of the *a minima* exercise are encouraging, the utility of such a Regulation will become clear, in order to enhance the harmonisation and regular production of micro household data in European countries. It may also/alternatively be recommended adding variables to the SILC surveys to allow capturing better social transfers in kind at the individual level.

**- Consider the possibility of collecting additional National Accounts data (annual sector accounts) to better match them with micro-data on income.**

At EU level, National Accounts data on household income are collected through the Annual Sector Accounts (ASA) questionnaire. In the light of the *a minima* exercise, it may be recommended to collect additional NA data such as: mixed income (B3), gross interest before FISIM allocation (D41G) and withdrawals from the income of quasi-corporations (D422).

**- For household wealth, prioritise the compilation of household non-financial assets, in particular dwellings and land (see Part III).**

### **III. ENCOURAGING THE COMPILATION OF BALANCE SHEET ACCOUNTS FOR HOUSEHOLDS**

#### **III.1 Objective**

Recommendation 3 of the Stiglitz/Sen/Fitoussi report asks to ‘consider income and consumption jointly with wealth’ and promotes the compilation of balance sheets by sector including non-financial assets. The main rationale is the following: ‘Measures of wealth are central to measuring sustainability. What is carried over into the future necessarily has to be expressed as stocks – of physical, natural, human and social capital.’

Moreover, reliable measures of household wealth allow detecting ‘bubbles’ and measuring the ‘wealth effect’ i.e. the possible impact of wealth on consumption. In this context one major line of action recommended by TF-HP is fostering the compilation of the balance sheets accounts (BS) of households.

Two main categories of entries in the balance sheets are distinguished: non-financial assets (denoted AN) and financial assets and liabilities (denoted AF). Financial assets and liabilities in terms of flows and stocks are recorded in the financial accounts and balance sheets, which are currently produced by almost all EU member states (in most cases under the responsibility of the Central Banks) and transmitted through the current ESA transmission programme (annual data) / ECB guidelines (quarterly data).

Households’ entitlements related to unfunded pension schemes are not recorded in the current system of accounts although they represent important assets for households and liabilities for (generally) government. However, the revised ESA transmission programme should include a supplementary table that will allow measuring the total financial wealth of households including all pension entitlements.

Data on non-financial assets are transmitted through the current ESA transmission programme (Table 26) on a voluntary basis except for the asset ‘dwellings’ which is mandatory. As the availability of non-financial assets is still very limited, promoting their compilation and harmonising the methods are particularly important, especially for households’ dwellings and land.

#### **III.2 Possibilities and limits**

According to the situation in February 2011, only three countries have provided data for all types of non-financial assets (back to 1980 or 1995). For another group of six countries, tangible produced assets are available back to 1995. Data for dwellings are provided by seven additional countries whereas the remaining eleven Member States have not provided any non-financial assets data so far.

In 2009, the task force on ‘quarterly accounts by institutional sectors’ (TF-QSA) invited several countries (IT, UK, DE, NL) and ECB to present and discuss their compilation practices<sup>9</sup> for balance sheets accounts. Although that initiative helped to shed light on some aspects, the knowledge of the work already done by EU countries and their future plans for improvements was not considered sufficient. For this reason, a questionnaire was circulated in September 2010

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<sup>9</sup> The corresponding documentation was loaded on Circa:

[http://circa.europa.eu/Members/irc/dsis/quarterlyaccounts/library?l=/balance\\_financial/national\\_compilation](http://circa.europa.eu/Members/irc/dsis/quarterlyaccounts/library?l=/balance_financial/national_compilation).

among the TF-HP members (see Annex 3), to request detailed information about data availability, methods used, organisational aspects, current dissemination policy and future plans. Six Member States and ECB provided a response to the questionnaire. A short summary of country practices is given below; the outcome of the questionnaire is described in more detail in Annex 3. A full version of this questionnaire was transmitted to TF-QSA at the beginning of 2011, for direct completion or forwarding to the national experts in the field. Results should be presented at the TF-QSA meeting in June 2011 and could be followed by a workshop to take place in 2011/2012.

### **III.3 An overview**

All the respondent countries produce some data on non-financial assets by sector, but for most countries the information is limited to some main variables and is not available for all sectors. Two countries out of six compile the whole system of accounts from the opening to the closing BS (capital account, other changes in the volume of assets account, revaluation account); one country produces all the accounts only for Fixed Assets (AN.11). Consistency in the classification of institutional units in the accounts is always ensured, according to the answers received.

For the Euro area, ECB produces experimental estimates, annual and quarterly, for selected non-financial assets and for total assets by sector; estimates on other changes in volume and revaluation of non-financial assets are not available. Separate complete estimates of non-financial assets for NPISHs (S.15) exist in three countries out of six.

One important issue is the delineation of the Households sector: the knowledge of classification rules and the extent to which they differ across countries is of paramount importance to appropriately compare households' wealth across countries. The crucial point is whether the household sector should include market producers (unincorporated enterprises) in the sector, taking for granted that it includes consumer households. Actually, the rules prove to differ quite substantially across countries: some countries do classify in S.14 sole proprietorships and self employers; some other countries make a distinction between partnerships without independent legal status, classified in S.14, and other partnerships, which are classified as Non-financial corporations. A survey on the delineation of the household sector was recently conducted in the TF-QSA. Its results could be a useful starting point for a deeper investigation of countries' practices.

As to institutional arrangements, the compilation of non-financial assets data is generally carried out by National Accounts departments, except for some specific assets where the estimates are provided by or with the help of specialised statisticians.

The number of persons engaged on a full-time basis in the production of BS by institutional sector varies from 1 to 3.

### **III.4 Data availability, methods and future plans**

The availability of data is the highest for 'Dwellings', 'Other buildings and structures', 'Machinery and equipment' and 'Computer Software'. Intangible fixed assets other than computer software, inventories and valuables are generally not available.

An estimation of both ‘Land underlying buildings and other structures’ and of ‘Land under cultivation’ exists in three countries. In some cases is not clear if the value of Land underlying Dwellings is included in the value of Dwellings when the latter is estimated through a direct method.

Data on Subsoil assets only exist in two countries, intangible non-produced assets only in one country. In general, when an asset is estimated, data are provided for all institutional sectors.

As regards the approach adopted, the use of the Permanent Inventory Method (PIM) is widespread, in particular for ‘Non-residential buildings and other structures’, ‘Machinery and equipment’ and ‘Computer Software’, while direct estimation is typically used for Land. In the case of ‘Dwellings’, both approaches (PIM and direct method) may be used.

In general, improvements in methodology are planned for ‘Dwellings’ and ‘Land’, both for the total economy and by institutional sector. However, some countries declared that they had no plans to introduce further improvements to the present methodology in the near future.

### **III.5 Recommendations**

#### **III.5.1 Increase the coverage of the assets**

Concerning non-financial assets, the compilation is quite advanced in some countries, but a complete framework of accounts for all institutional sectors is still lacking. Future plans in most countries show an evolutionary situation, but do not suggest concrete willingness to make substantial progress towards completing the balance sheet accounts.

Having comprehensive estimates of non-financial assets for all the economic operators would of course guarantee the soundness and reliability of data on Households, which are the principal focus of the TF-HP.

Since the present data availability doesn’t seem suitable for reliable and comparable estimates, the first recommendation should be to increase the coverage of assets.

Among these items, the transmission of both data on households’ ‘Dwellings’, ‘Land’ and in particular ‘Land underlying buildings’ should be recommended as a priority. This could provide a more accurate estimate of the value of the main non-financial assets held by households, helping to reflect the occurrence of possible real estate bubbles.

The TF also recommends the compilation of data for consumer durables that would provide a more comprehensive measurement of household wealth.

Given this background concerning data transmission, TF-HP suggests a new timetable and sets priorities for additional data.

A distinction should be made between short-term and medium- (long-) term actions.

- In the short term: Collect/disseminate annual data on households’ dwellings, for all EU countries, as required by the present ESA transmission programme;

- In the medium term (in the context of the revised ESA transmission programme, to come into force by 2014): Prioritise the transmission of the following items: a) dwellings and the underlying land for Households sector b) non-financial assets data for total economy;
- By 2017: Require sector detail for a selection of produced non-financial assets (including dwellings) and land.

In the medium/long term, balance sheet data for S14 and S15 should be transmitted separately. The transmission of data for other assets, in particular non-produced assets except land, should be kept voluntary.

A concrete proposal for a revised Table 26 is given in Annex 3 for further consideration by Eurostat and Member States as part of the forthcoming discussions on the revised ESA transmission programme.

### III.5.2 Improve timeliness

There is growing interest from both producers and users in Household wealth as a key indicator to be jointly analysed with disposable income, so timely compilation of BS is of utmost relevance.

The data transmission deadline proposed until now, i.e. 24 months after the reference year, is not acceptable in the long run. Moreover, estimates of capital stock for S1 (total economy) are available in most countries at t+9 or t+12 months.

Therefore the TF recommends that household data collected with Table 26 be transmitted within one year after the reference period, as of 2017.

### III.5.3 Increase the comparability of estimates across countries

From a methodological point of view, the outcomes of the questionnaire circulated among TF members suggest that a number of issues require further elaboration, in particular those related to sector delineation and internal consistency of estimates, especially when different methodological approaches are used for estimating total economy and sector data.

#### *Sector delineation*

The practical application of the sector delineation in the ESA/SNA should be further harmonised across countries, to permit correct interpretation of data and more accurate comparison of households' estimates across countries. In particular, it must be noted that:

- Some Member States do not compile separate estimates for Households and NPISH;
- They often use different criteria for identifying quasi-corporations and distinguishing them from other partnerships or sole proprietorship to be included in the Household sector.

It would be interesting to assess the feasibility of further splits of the Household sector. For example, in Italy, the household sector is split into two sub-sectors: consumer households (whose main function consists of consumption and production of goods and services for own final use) and producer households (own-account workers and sole proprietorships, simple partnerships

and *de facto* partnerships with up to 5 employees and all financial auxiliaries with no employees).

The work of the taskforce ‘quarterly accounts by institutional sector’ (QSA) should be followed up, to better document and possibly harmonise the treatment of quasi-corporations across countries, in both non financial and financial accounts / balance sheets.

*Internal consistency of estimates*

The consistency between capital stock estimates for total economy (generally obtained through PIM) and the stocks of non-financial assets by sector (obtained in some cases through direct methods), should be further investigated. In particular, transfers of capital goods from one sector to another need to be attentively examined (i.e. data on acquisitions and disposals should be estimated separately).

A workshop should be held for compilers of non-financial assets data so they can discuss national practices and methodological issues.

## **IV. BROADENING INCOME MEASUREMENT TO NON-MARKET DOMESTIC ACTIVITIES AND LEISURE TIME**

### **IV.1 Objective**

Although leisure time is part of wellbeing, and can be captured through e.g. Time Use Surveys (TUS), it falls outside the scope of national accounts. They are for recording production, expenditure and income. On the other hand, non-market domestic activities are theoretically part of national accounts as they may, to an extent to be defined, replace the purchase of goods and services. So the income needed to satisfy (material) needs and wants decreases by the value of the goods and services produced by the household for its own consumption.

In national accounts, the production of households for own final use is confined to the production of goods. Moreover, in the ESA 95, by convention, only own-account construction of dwellings and the production, storage and processing of agricultural products are included within the boundaries of production. All other own-account production of goods by households is deemed to be insignificant for EU countries. On the other hand, production of domestic and personal services that are produced and consumed within the same household (with the exception of employing paid domestic staff and the services of owner-occupied dwellings) are excluded (ESA 1995, 3.08-3.09)<sup>10</sup>.

The report of the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz/Sen/Fitoussi, 2009) recommends broader measurement of household economic activity. The rationale is that measurements of living standards based solely on market activities might be biased by the fact that the locus of production is increasingly shifted from households to markets. Hence, the level of market production varies with the amount of production that is outsourced by households.

Following the sequence of accounts, disposable income and consumption are affected, too. Although households' saving would not be affected, the saving rate would change because of the increase in the denominator as shown in the table below:

Table 1: Net saving rate with / without adjustment for own-account production

Net Disposable Income (NDI)	NDI including own-account production	Net saving	Net saving rate	Adjusted net saving rate
100	130	15	15 %	11.5 %

Furthermore, including non-market domestic activities in both household income and consumption might help to explain the observed differences between countries in household saving rates. Indeed, the adjusted household saving rates would be comparatively lower in countries where non-market domestic activities are important.

More generally speaking, the aim of estimating households' non-market production is to show how it contributes to economic and social wellbeing. The revised *Canberra Group Handbook on*

<sup>10</sup> SNA 2008 includes all production of goods for own use within its production boundary (SNA 2008, 1.42), the revised ESA 2010 keeps the rules of ESA 1995. The production of services for own final consumption within households is excluded in both the revised SNA and the revised ESA (again with the exception of employed domestic staff and housing services by owner-occupiers).

*Household Income Statistics* includes the household production of services in the conceptual definition of income and proposes methods for estimation (§2.3.3 and §3.4.4 in the draft version). It is however acknowledged that further work will be needed to improve international comparison. Moreover, the breakdown by gender of this type of non-market production is important for a variety of policies.

Broadening income measurement to non-market domestic activities and leisure time necessitates information on the time spent by households on such activities, and methods to evaluate the output produced during this time in economic terms.

## **IV.2 Possibilities and Limits**

### **IV.2.1 Time Use Surveys (TUS)**

The basic data source and starting point for estimates of household production and leisure time is to investigate how people spend their time.

At present, there is no EU regulation that provides for the production of regular Time Use Surveys (TUS) in the European Union. However, methodological guidance has been provided by Eurostat through guidelines on Harmonised European Time Use Surveys (HETUS) (*Eurostat, 2008*). An important point is that guidelines give priority to individual data, not to the household level.

Eurostat has produced comparison tables for time use based on the HETUS guidelines, with results disseminated in one working paper covering ten European countries (*Eurostat, 2005*) and another covering five countries (*Eurostat, 2006*). Some available TUS had to be excluded from these comparison projects due to methodological differences, which underlines the need for further standardisation and harmonisation.

In 2009/2010 Eurostat carried out a ‘rolling review’ of TUS, consisting of three parts: a user satisfaction survey, a partner satisfaction survey and the so-called Eurostat Statistical Processes Assessment Checklist (ESPAC). One of the recommendations arising from the review is to consider, in the longer term, developing European legislation for HETUS. The recommendation explicitly refers to the new political demands for comprehensive measurement of economic performance and social progress, triggered by the *Stiglitz/Sen/Fitoussi* report. It is emphasised that legislation would further harmonise TUS and improve comparability between countries (*Eurostat, 2010*).

Further harmonisation of TUS would offer better international comparability, but could disturb backwards comparability over time in individual countries due to changes in concepts and methodologies (*UNECE, 2010*). Some countries do in fact deviate from the HETUS guidelines just to ensure comparability with former data. Sticking to harmonised concepts will, of course, facilitate comparability over time for future surveys.

In 2009, the Conference of European Statisticians also conducted an ‘in depth’ review of TUS based on the experience of the United States, Germany and Finland. The discussion at the CES meeting drew attention to the limits of existing TUS in terms of frequency, classifications and other survey features, highlighting the importance of finding alternative ways of undertaking these surveys (including through ‘lighter’ surveys) and of collecting some of the data obtained through TUS. As a follow-up to this discussion, the CES Bureau agreed at its meeting in November 2010 to set up a task force (which will include Eurostat and the OECD) on TUS. The objective is to prepare guidelines and compilations of best practices to help countries in carrying

out the TUS and to improve the international comparability of TUS results. The task force is supposed to come up with a final report by the end of 2012.

It is difficult to estimate the costs for TUS across countries; they depend on the sample size, the size of diaries and the data collection tools (e.g. the costs for TUS in NL are estimated at about €1 million). In general, web-based surveys are less costly than surveys by mail or telephone; the results are available for analysis immediately after the completion and submission of the questionnaire. As for the impact on quality, different studies provide different findings (*Bonke/Fallesen, 2009*). The impact of data collection via electronic media on costs will be evaluated and best practices will be shared.

Information from TUS is useful far beyond National Accounts needs for the compilation of household satellite accounts. TUS can provide key information on wellbeing in general, in particular the split between working time (including travel-to-work) and leisure. From this point of view, running a TUS every 10 years in all Member States and in accordance with international standards would probably make sense, although this goes beyond the mandate of the ‘Household perspective’ task force.

Conversely, TUS data are not the only tool for estimating the non-market activities of households. More frequent, and lighter, household surveys could be used for this purpose if they include questions such as: ‘Which activities have you decided to carry out yourself instead of paying for them?’; ‘How much would it have cost had you not decided to do it yourself?’ and (as plausibility checks) ‘How much time have you spent on them?’

#### IV.2.2 Household satellite accounts

Concerning household satellite accounts, there is no EU provision either, but in 2003 Eurostat issued a set of methodological proposals (*Eurostat, 2003*), based on an interim report of the Household Satellite Accounts task force set up in 2001. Household satellite accounts typically include monetary estimates of households’ own production, excluding leisure time.

These proposals focus on the so-called input approach, which values household production by the sum of its inputs (labour input, intermediate consumption, capital costs). The output approach, on the other hand, imputes the value of similar market production and is thus analogous to the valuation of own-account production in the core national accounts. The main advantage of the input approach is that estimates can be derived from TUS. On the other hand, this sum of costs method assumes that there is no productivity gain and, in general, that households’ productivity is on a par with professionals.

The output-based valuation requires information on the physical quantities of household output to be valued at equivalent market prices, e.g. number and kinds of meals prepared, number of children taken care of, kilograms of laundry washed (*Goldschmidt-Clermont, 2000*). In most countries these data on output quantities are not directly observable. There are approaches to derive output measures indirectly from episodes recorded in time use diaries, e.g. estimates for the number of meals (*Ironmonger/Soupourmas, 2009*).

For several European countries household satellite accounts have been compiled in recent years, such as for the UK (*Halloway et al., 2003*), Germany (*Schäfer, 2004*), Finland (*Aalto/Varjonen, 2006*) and Spain (*Casero/Angulo, 2008*). The approach applied for the UK accounts was output-based, whereas the three others chose the input approach.

Starting with the year 2003, the US Bureau of Labor Statistics (BLS) has released the annual American Time Use Statistics (ATUS), which are a model of consistent and comprehensive time series on time use. Continuous information on time use allows for a broader range of possible

analyses than just periodic surveys (*Fraumeni et al., 2009*). Nevertheless, periodic surveys provide adequate information to assess structural changes in time use and consequently in household domestic production and leisure time. At the very least they allow regular monitoring of shifts in the locus of production over a period of time.

According to the recommendation of the *Stiglitz/Sen/Fitoussi* report, non-market household production should not be included in the core national accounts but in satellite accounts. There again, the frequency and content of such household satellite accounts should be harmonised to ensure comparability.

On the methodological side, the main conceptual problems are evaluating household non-market production (e.g. input vs. output approach; type of imputed wage) and comparability over time and space. Evidently, a major issue for comparability is the delineation of the household sector itself and of the activities taken into account for valuation.

Finally, feasibility depends on the availability of resources and agreement on conceptual and methodological issues. A practicable first step would be to dispense with a broad approach (estimates for output, intermediate consumption and capital costs) and confine the analysis to valuing unpaid working hours as a starting point.

### **IV.3 Recommendations**

#### *(1) Encouraging international harmonisation and coordination of Time Use Surveys (TUS)*

The TF did not feel competent to recommend an EU regulation on TUS, as their usefulness goes beyond the measurement of material living standards. However, despite the absence of EU legislation on TUS, they should be harmonised (same concepts and methodologies) and synchronised (same reference year) to ensure the regular availability of comparable data on time spent for non-market household production.

TUS should be conducted every ten years at least. This is considered an adequate interval to assess significant changes in time-use patterns and to detect possible shifts of the locus of production between households and the market. Many countries already providing TUS on a regular basis have chosen an interval of approximately 10 years (see Annex 4).

Using TUS to estimate non-market activities of households is just one of several analytical purposes. The conceptual design of TUS should take account of the requirements for these estimates. This calls for cooperation by the people/units responsible for conducting TUS (social statistics) as well as those responsible for estimating households' non-market production (national accounts).

The broadening of production and income measurement is meant to complement the conventional core national accounts, which are based on the production boundaries of SNA/ESA, so the underlying data should allow compilation of these estimates according to accounting principles.

The reconciliation of TUS data with complementary sources requires the terms and classifications to be comparable. If not in detail, it should at least be possible to match the data at the requisite level. The variables for labour market categories in the HETUS 2008 guidelines are, for example, basically the same as in the Labour Force Statistics (LFS).

The task force 'Household Perspective' recommends that the UNECE Task Force issues guidelines and identifies best practices that will foster harmonization and improve international comparability.

*(2) Using TUS to identify the most significant discrepancies between countries in time use for domestic production*

Broadening production and income measurement to non-market domestic activities has two dimensions. On the one hand the question is, whether the growth measures for a specific country are biased by the shift of the locus of production over time. On the other hand the comparison between countries is also influenced by the extent to which a given production is either carried out within the household or bought on the market.

For the purpose of country comparisons it is not necessary to take all domestic activities into account for valuation. The focus should rather be on those activities to which significantly different amounts of time are allocated. Annex 4 provides an overview of the breakdown of domestic work by gender across some European countries, based on TUS.

*(3) Investigating the availability and suitability of alternative/complementary sources on non-market domestic activities such as household budget surveys*

Genuine TUS are not necessarily the only source of information on time use. If it turns out that more frequent data are needed, additional information on non-market domestic activities could also be collected via supplementary modules in other existing household surveys such as the Household Budget Survey (e.g. drop-off questionnaires), Labour Force Survey, EU-SILC or through micro-census programmes, for the countries concerned.

These data can help to detect particular trends in time use or shifts of the locus of production even between the benchmarks of regular TUS. The questions should rather focus on how households do actually perceive non-market activities (e.g. Which activities have you decided to carry out yourself instead of paying for them? How much time have you spent on them? How much would it have cost had you not decided to do it yourself?).

*(4) Encouraging methodological discussions with a view to compiling household satellite accounts as of 2020*

The DGINS conference in September 2010 considered the compilation of household satellite accounts premature for the time being. There are some crucial issues which have been left open for discussion in Eurostat's methodological proposal for household satellite accounts.

Country experiences from recent projects on household satellite accounts must be gathered first to build on and to derive best practices. The taskforce therefore recommends creating a pilot group of advanced countries that would propose a common (European) approach in this area to be used as a basis for longer term developments.

A reasonable long term objective would be to compile internationally comparable satellite accounts for households as of 2020, to be updated every 10 years minimum. At least the following key indicators should be made available:

- Actual consumption including non-market domestic activities
- Adjusted net disposable income including imputations for non-market domestic activities
- Actual net saving rate adjusted for non-market domestic activities

## CONCLUSION

Further to the Stiglitz/Sen/Fitoussi recommendations and the ‘GDP & Beyond’ communication, the Household perspective task force has analysed the four themes within its mandate, namely:

- A. Better promoting existing National Accounts data on household income and consumption
- B. Providing information on the distribution of household income, consumption and wealth
- C. Encouraging the compilation of balance sheet accounts for households
- D. Broadening income measurement to non-market domestic activities and leisure time

On each of these recommendations, the task force has issued a set of concrete proposals and, in some cases, provided deliverables such as a standard news release based on key indicators that should be used EU-wide to better emphasise the household perspective. Some of the recommendations have already been implemented partially. For instance, Eurostat decided in 2010 to issue a quarterly news release entirely dedicated to household income, consumption and saving.

In other cases, the task force has prioritised certain variables (e.g. some non-financial assets) for further consideration by Eurostat and the Member States in forthcoming discussions of the revised ESA transmission programme. Recommendations have been also made regarding Time Use Surveys and/or household budget surveys with a view to estimating, directly or indirectly, the value of domestic non-market production.

Finally, the taskforce has been instrumental in the decision by Eurostat to support and co-sponsor the work of the OECD Expert Group to measure disparities in a national accounts framework and made recommendations on the scope of future studies in this field. Eurostat has started a matching exercise between National Accounts and SILC data that may lead to further practical recommendations such as collecting additional variables in the NA and/or SILC context.

Turning to the timetable, it is clear that the recommendations made have different time horizons as summarized in the following roadmap:

- **2012** (May): First results of the *a minima* exercise carried out by Eurostat on the matching of SILC/HBS data with National Accounts aggregates.
- **2012** (November): Introduction of the standard variables on household income and consumption in Eurostat and NSIs' publications (see the standard quarterly news release proposed in annex 1). Update by Eurostat of the annual data on household adjusted income per consumption unit, in PPS.
- **2014** (December): Transmission to Eurostat, at t+24 months, of annual data on households' dwellings and land and publication of the derived estimates (e.g. household wealth).
- **2017** (December): Transmission to Eurostat, at t+12 months, of annual data on households' dwellings and land and publication of the derived estimates (e.g. household wealth).
- **2020**: (1) Publication by Eurostat and the NSIs, for a reference year, of data on adjusted gross disposable income, actual individual consumption and the gross saving rate for different categories of households (e.g. standard of living, age of the household reference person and household composition). (2) Publication by Eurostat and the NSIs, for a reference year, of data on adjusted gross disposable income, actual individual consumption and the gross saving rate adjusted for non-market domestic activities.

However, it should be borne in mind that the developments proposed will require additional resources, both in the National Statistical Institutes and at Eurostat.

In particular, compiling distributional statistics on household income and consumption requires a team combining experts from National Accounts and social statistics that should work together on a medium term basis. The project is expected to benefit both fields of statistics, as a reconciliation exercise, and the final users who will be provided additional breakdowns.

The task force is convinced that the recommendations made will help the European statistical system to meet the target of better measuring the material wellbeing of households, and thus contribute to bringing economic statistics closer to citizens' perceptions and expectations.

## ANNEX I

**'Better promoting existing National Accounts data on household income'**

— Proposal for a standard news release —

Quarterly Household Accounts: 3<sup>rd</sup> quarter of 2010

# **Household real income per head down by 0.1 % Consumption per head up by 0.2 % - Gross saving rate down to 13.8 % -**

In the 3<sup>rd</sup> quarter of 2010, household gross disposable income per head fell by 0.1 % in real terms. Household consumption expenditure per head increased by 0.2 % in volume. As a result, the gross household saving rate decreased from 14.2 % to 13.8 %.

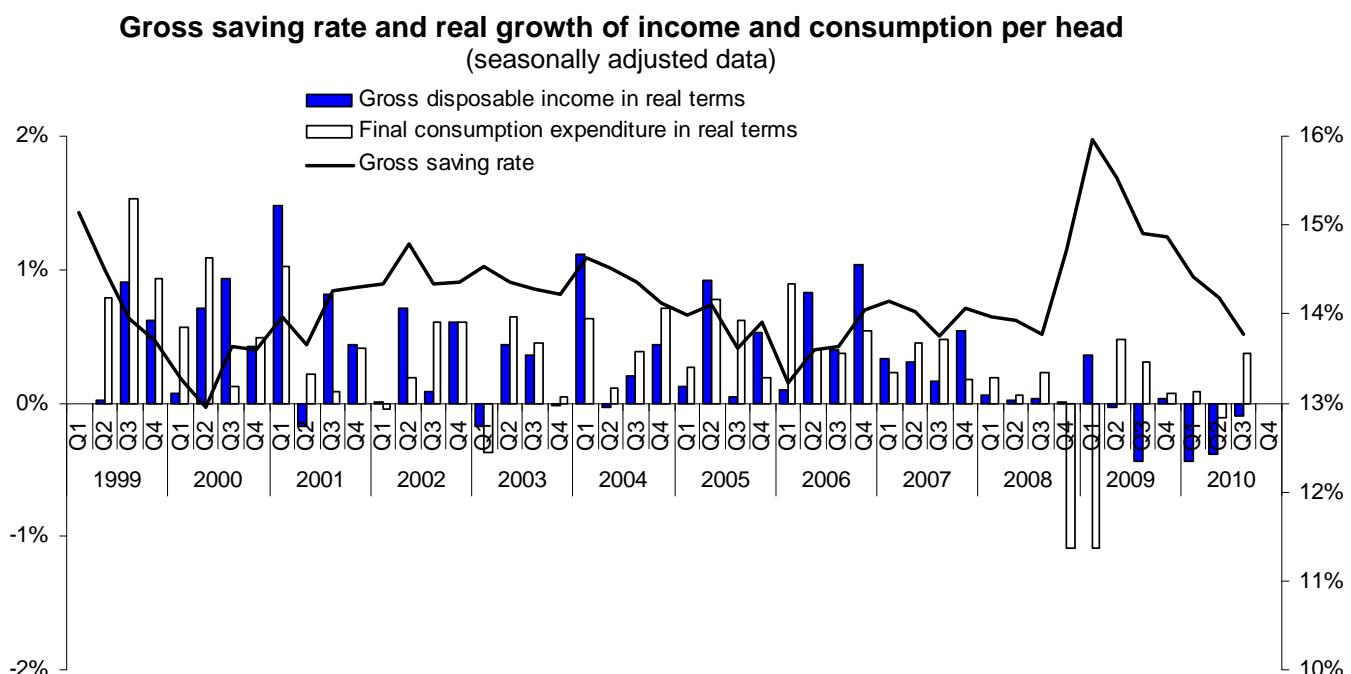
The decrease in real income per head was mainly due to slower growth of nominal wages (+0.3 %) compared to the prices of goods and services (+0.4 %). Consumption per head increased by 0.2 % in volume, of which food expenditure grew by 0.2 % and housing by 0.1 % whereas consumer durable goods (e.g. cars, home appliances) fell by 0.1 %. After adding goods and services (e.g. in education and health) financed by government that fell by 0.1 % in volume, (actual) consumption per head increased by 0.1 %. Household Investment (e.g. in new or renovated dwellings) decreased by 0.1 % in volume.

In this release, households include non-profit institutions serving households. Income and consumption are calculated per consumption unit, that is per head after accounting for changes in households' composition (the cost of living is higher for several single households than for one household with many members). Data are provided seasonally adjusted and in real terms / volume to offset price changes. The concepts of actual consumption / 'adjusted' or 'enlarged' income account for goods and services (e.g. in education and health) financed by government.

These data were released by the National Statistical Institute and are available at: <http://nsi.com>

## **Household consumption picks up**

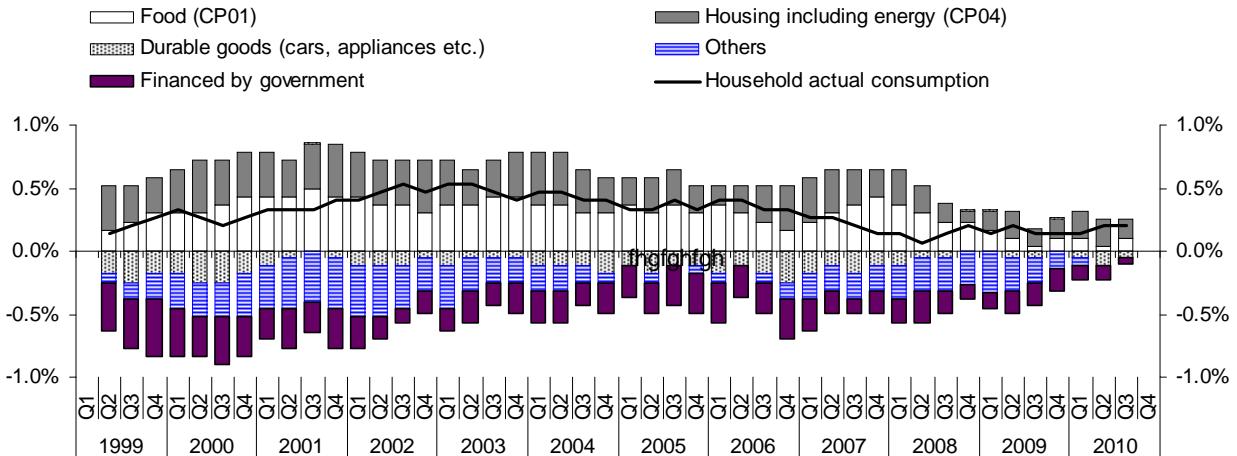
Household consumption in volume resumed growth, while real income decreased less than in the two previous quarters. The gross saving rate decreased from 14.2 % to 13.8 %.



## Growth in household actual consumption mainly driven by housing expenditure

Growth of household actual consumption (+ 0.2%) in volume was driven by housing expenditure (including energy), which contributed ...pp, followed by food (... pp). Consumer durable goods (e.g. cars and appliances) contributed negatively (- ...) together with goods and services financed by government and non-profit institutions (- ... pp).

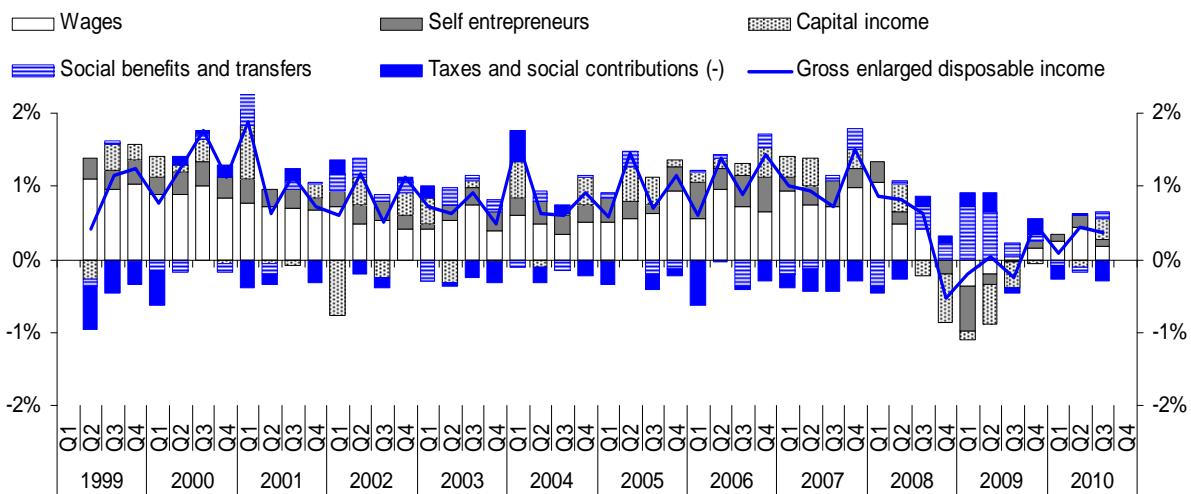
### Contributions to the real growth of household actual consumption (seasonally adjusted data, change compared to the previous quarter)



## Wages and taxes contributed most to changes in household enlarged income

The decrease in household real enlarged income was caused by prices of goods and services increasing more than income at current prices ('nominal income') as shown in table 2. The increase in household nominal income (+0.4%) was mainly due to wages and capital income (e.g. interests, dividends, actual and imputed rents), which contributed ... and ... percentage points (pp) respectively whereas the contribution of self entrepreneurs income was ...pp. Social benefits/transfers in kind and other current transfers contributed ...pp whereas taxes and social contributions contributed negatively (-... pp).

### Contributions of components to the nominal growth of household enlarged income (seasonally adjusted data, change compared to the previous quarter)



## Household investment still falling

Household investment (e.g. in new or renovated dwellings) fell by 0.1 % in real terms after -0.2 % in 2010Q2 and -0.3 % in 2010Q1.

**Table 1: Household enlarged gross disposable income per consumption unit**  
 (Millions of euro at current prices, seasonally adjusted)

		Enlarged gross disposable income					Number of consumption units	Enlarged gross disposable income per consumption unit
		Wages	Income of self entrepreneurs	Capital income	Social benefits, social transfers in kind, etc.	Taxes and social contributions (-)		
...								
2003	Q1							
	Q2							
	Q3							
	Q4							
2004	Q1							
	Q2							
	Q3							
	Q4							
2005	Q1							
	Q2							
	Q3							
	Q4							
2006	Q1							
	Q2							
	Q3							
	Q4							
2007	Q1							
	Q2							
	Q3							
	Q4							
2008	Q1							
	Q2							
	Q3							
	Q4							
2009	Q1							
	Q2							
	Q3							
	Q4							
2010	Q1							
	...							

**Table 2: Growth in household enlarged gross disposable income per consumption unit**  
 (seasonally adjusted, percentage change compared to the previous quarter)

				Nominal growth of the components of enlarged gross disposable income	Contribution of the components to the nominal growth of the enlarged gross disposable income	Nominal growth	Real growth
		Wages					
		Income of self entrepreneurs					
		Capital income					
		Social benefits, social transfers in kind, etc.					
		Taxes and social contributions (-)					
		Wages					
		Income of self entrepreneurs					
		Capital income					
		Social benefits, social transfers in kind, etc.					
		Taxes and social contributions (-)					
		Enlarged gross disposable Income					
		Number of consumption units					
		Enlarged gross disposable income per consumption unit					
		Growth of the deflator of households actual final consumption					
		Enlarged gross disposable income					
		Enlarged gross disposable income per consumption unit					
2010	Q1						
2009	Q2						
2009	Q3						
2009	Q4						
2008	Q2						
2008	Q3						
2008	Q4						
2007	Q2						
2007	Q3						
2007	Q4						
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1931	Q3						
1931	Q4						
1930	Q2						
1930	Q3						
1930	Q4						
1929	Q2						
1929	Q3						
1929	Q4						
1928	Q2	</					

**Table 3: Household actual final consumption per consumption unit**  
 (Millions of euro at current prices, seasonally adjusted)

**Table 4: Growth in household actual final consumption per consumption unit**  
 (seasonally adjusted, percentage change compared to the previous quarter)

***'Providing information on the distribution of income, consumption and wealth'***

### AII.1 Experiences and projects

**NL** (CBS) has a long tradition of expanding national account macro-economic aggregates into matrices describing how these aggregates are distributed through population. These so-called “social account matrices” (SAM) are compiled both on the demand side (12 categories by sex and highest educational attainment) and the supply side (10 household categories: Main source of income × Household composition) of the labour market. Once the decomposition of the Household sector into 10 household groups is achieved for primary income, secondary distribution account and consumption expenditures are also decomposed.

CBS has been publishing such SAM since the beginning of the 90's. In particular, household revenues derived from fiscal declarations are individually matched with survey data. In terms of publication, emphasis has been given to social accounting matrices in levels, year after year. In 2010, time series of the SAM will be published, allowing for derived annual growth of income and consumption by household groups.

In **IT**, developing measures on the distribution of income across groups of households is a priority issue for ISTAT. The main statistical sources are:

- SILC data: 26 000 households, about 70 000 individuals. The data for year Y are available in December Y+2 but timeliness should improve in the future;
- Biennial Survey on Household Income and Wealth (SHIW) run by the Bank of Italy with the aim of gathering data on the incomes and savings of Italian households: 8 000 households, about 21 000 individuals. Data for year Y are available in December Y+1;
- Sample survey on Households expenditure run by ISTAT: 21 000 households, about 52 000 individuals. Data for year Y are available in December Y+1 (see ISTAT's press release of 5 July 2010).

A two-step action plan has been set-up. In a first step (Sept. 2010 — Dec 2010), the consistency between information collected through surveys and NA definitions will be assessed, including different treatments of the underground economy. The data will be processed in a second step, starting by the end of 2011 (after the benchmark revision).

In **DK**, like in the Netherlands, Households surveys can be matched with fiscal administrative information. Micro-data on annual income cover the whole population and are based on information from tax authorities and population register. The Household budget survey is conducted and published yearly and the results are based on a three years average. It provides micro-information on consumption, income and saving, albeit with a small sample and a low response rate. Under a research programme (2005-2007), DK envisages collecting micro-data on wealth covering market value on owner-occupied dwellings, cooperative owned dwellings and cars.

In **DE**, the household sector is not separated from the NPISH sector for the moment. As regards micro data, there is a Household budget survey every five years (60 000 households surveyed), and the SILC survey (14 000 households surveyed) conducted each year. HBS also provides some information on wealth (financial and non financial assets — dwellings, business assets and

consumer durables). In addition, income tax data are available, but it is not possible to match them with BDS-data on an individual basis. DE is willing to engage in an Insee's type exercise of household account breakdown by category.

In **AT**, income data from EU-SILC are annually tested for coherence by comparing the results to national accounts estimates and to wage tax statistics. The results of the household budget surveys, which are carried out every five years, are also compared to national accounts estimates on household consumption expenditure.

In **FR**, INSEE has embarked on a long term project, consisting in breaking down the Households' account by category, since mid 2007. The first aim of this project was to reconcile macro-economic figures on purchasing power with public's perception. Since then, providing information on the distribution of income, consumption and wealth within the national account framework has become one of the central recommendations of the "Stiglitz" report.

The first results (disposable income and household consumption expenditure for reference year 2003) have been published in June 2009, after two years of preliminary work. The project was then extended to cover individualised consumption expenditure provided by general government and NPISH. Next steps are the following:

- Mid 2011: Revision of the households' account by category for reference year 2003, due to the release of the national account benchmark revision;
- End 2011: Publishing balance sheet accounts by category of households;
- End 2011 / Mid-2012: Measuring medium-term (1997-2007) changes in purchasing powers by category of households.

For the success of the project, it is crucial to make national accountants and statisticians specialised in household surveys work together. About 600 working days were devoted to the first step of the project: 12 people (half of them national accountants, half of them specialists in household surveys), among whom 5 more specifically involved.

The main methodological challenges were the following: Reduction of the NA scope (excluding collective households); Design and imputation of a « NA standard of living » variable at a micro level within surveys ; Choices for imputations (TVA fraud, financial income) ; Introduction and estimates of private transfers ; Working at the same time on income and consumption as HBS micro data need to be scrutinised to provide plausible information on savings ; Reliability of the household surveys on income for estimating income annual/pluriannual growth.

Bringing together macro and micro perspectives on household income is identified by **OECD** as one of the key recommendations from the Stiglitz Commission. After a presentation of INSEE research to OECD WPNA on Nov. 2009, OECD proposed that countries interested establish a group to implement the approach, based on common assumptions and methodology. Interest was expressed at the WPNA meeting from several countries (incl. many non-European) and CSTAT ranked this work 2nd out of 10 new activities. INSEE has seconded an expert to OECD since September 2010 in order to pursue this work.

**ECB** is launching the Euro Area Household Finance and Consumption Survey (HFCS): micro data on income, consumption and wealth are being collected in the euro area countries and should be updated every 2/3 years. This is the first time ex-ante harmonised information is collected for wealth in every country. Each NCB finances and conducts its own wealth survey (in a few cases in cooperation with NSIs) whereas the ECB coordinates and ensures methodological consistency. The focus is on wealth, i.e. income and consumption information is

less detailed than in SILC and in the HBS, respectively. The total sample size is circa 52,000 households (euro area + country representativeness), with possible oversampling of the wealthy households. First results are expected in 2012.

**UNECE** provides the secretariat and contributes to the task force on updating the Canberra Group Handbook on Household Income Statistics. The revised Handbook is expected to be published in 2011. It will provide detailed practical guidance on compilation of the income components. It will also include new material related to measuring the distribution of income: quality assurance guidelines; best practice for analysis of income distribution statistics; the appropriate use of survey and administrative data sources; material deprivation and multi-dimensional indicators of poverty and the appraising of the concentration of top incomes.

In 2010 the task force conducted a survey of country practices for measuring distribution of household income in order to inform the update of the Handbook. The survey included two questionnaires, with the first one focusing on the main data sources used to estimate the distribution of household income at the national level including a range of data issues such as coverage; collection; editing and imputation; estimation and dissemination. The second questionnaire collected information on the income components covered by the national definitions of income.

**AII.2 For a given year, and for a given household category, the breakdown sought could be:**

Mixed income of unincorporated enterprises

Net operating surplus and net mixed income of “pure” households (i.e. excluding unincorporated enterprises)

Gross wages and salaries (D11)

Employers’ social contributions (D12)

Interest (paid) (D41)

Property income (interest, dividends, etc.) (received) (D4)

*Primary income*

Social contributions (D61)

Social benefits other than social transfers in kind (D62)

Other transfers (D7)

*“Income before redistribution policies”*

Social contributions (D61)

Other contributions (e.g. pensions)

Social benefits other than social transfers in kind (D62)

Other benefits (e.g. pensions)

Current taxes on income, wealth, etc. (D5)

*Net Disposable income before private transfers*

Private transfers between residents

*Net Disposable income after private transfers*

*Consumption expenditure by COICOP item*

Social transfers in kind (D63)

    of which: health

    of which: education

*Adjusted net disposable income*

*Actual final consumption*

*Net saving*

Notes:

- Every line should be presented in billion euros per household or per person.
- Primary income, “income before redistribution policies”, disposable income before/after transfers, consumption expenditure, adjusted disposable income, actual final consumption and savings should also be presented in €per consumption unit.

### ANNEX III

***'Encouraging the compilation of balance sheet accounts 'for households'***

**AIII.1 Proposal for a revised Table 26 in the revised ESA transmission programme<sup>1</sup>**

Code	List of variables	Sectors
AN.1	1. Produced non-financial assets	S.1, S.11 <sup>(1)</sup> , S.12 <sup>(1)</sup> , S.13 <sup>(1)</sup> , S.14 + S.15 <sup>(1)</sup>
AN.11	2. Fixed assets	S.1, S.11 <sup>(1)</sup> , S.12 <sup>(1)</sup> , S.13 <sup>(1)</sup> , S.14 + S.15 <sup>(1)</sup>
AN.111	3. Dwellings	S.1, S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15
AN.112	4. Other buildings and structures	S.1, S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15
AN.1121	5. Buildings other than dwellings	S.1 <sup>(2)</sup> , S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15 <sup>(2)</sup>
AN.1122	6. Other structures	S.1 <sup>(2)</sup> , S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15 <sup>(2)</sup>
AN.113	7. Machinery and equipment	S.1, S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15 <sup>(2)</sup>
AN.114	8. Weapons systems <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.115	9. Cultivated biological resources	S.1, S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15 <sup>(2)</sup>
AN.117	10. Intellectual property products	S.1, S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15 <sup>(2)</sup>
AN.1171	11. Research and development <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.1172	12. Mineral exploration and evaluation <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.1173	13. Computer software and databases <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.1174	14. Entertainment, literary or artistic originals <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.1179	15. Other intellectual property products <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.12	16. Inventories	S.1 <sup>(2)</sup> , S.11 <sup>(2)</sup> , S.12 <sup>(2)</sup> , S.13 <sup>(2)</sup> , S.14 + S.15 <sup>(2)</sup>
AN.13	17. Valuables <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.2	18. Non-produced non-financial assets <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.21	19. Natural resources <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.211	20. Land	S.1 <sup>(1)</sup> , S.11 <sup>(1)</sup> , S.12 <sup>(1)</sup> , S.13 <sup>(1)</sup> , S.14 + S.15

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<sup>1</sup> This proposal is subject to the ongoing discussions on the revised ESA transmission programme.

AN. 2111	21. Land underlying buildings and structures	S.1 <sup>(1)</sup> , S.11 <sup>(1)</sup> , S.12 <sup>(1)</sup> , S.13 <sup>(1)</sup> , S.14 + S.15
AN. 2112	22. Land under cultivation <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.2113+ AN.2119	23. Recreational land and associated surface water, other land and associated surface water <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.212	24. Mineral and energy reserves <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.213 + AN.214	25. Non-cultivated biological resources and water resources <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.215	26. Other natural resources <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.22	27. Contracts, leases and licences <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15
AN.23	28. Purchases less sales of goodwill and marketing assets <sup>(1)</sup>	S.1, S.11, S.12, S.13, S.14 + S.15

Unit: current prices

<sup>(1)</sup> On a voluntary basis

<sup>(2)</sup> As of December 2017

## **AIII.2 Experiences and projects**

Through the current ESA95 Transmission Program (TP), Eurostat collects data on the annual balance sheet accounts of households back to year 1995. Data are to be transmitted on a voluntary basis, except for the asset ‘dwellings’ which is mandatory.

For three countries (FR, LU, CZ), all types of assets are available back to 1980 (FR) or 1995 (CZ, LU). For another group of countries (BE, DE, HU, LU, LV, NL and UK), tangible produced assets are available, back to 1995 (except for LV). Finally, data for dwellings are also provided by EE, FI, IT, LT, PL, SE and SK.

The 11 remaining Member States provided no data so far.

To have a more complete picture of the work done by EU countries up to now and of future improvements a questionnaire has been circulated among the TF-HP members. Six countries (AT, DE, DK, FR, IT, NL) and ECB have provided a response to the questionnaire.

The questionnaire is organized in three sections: Section A is devoted to the general aspects concerning current production, sector classification and organizational aspects; section B focuses on data availability, specifying whether PIM or direct estimations are used; section C reports on work in progress and future plans.

### **The findings of the questionnaire**

#### *Section A: Overview*

All the respondent countries produce some data on non-financial assets by sector, even if in some cases information is limited to some main variables for some sectors (see Section B). Two countries out of six (FR and NL) compile the whole system of accounts from the opening to the closing BS (Capital account, other changes in the volume of assets account, Revaluation account); DK produces all the accounts only for Fixed assets (AN.11). Consistency in classification of institutional units is always assured throughout the accounts. For the Euro area, ECB produces experimental estimates, annual and quarterly, for selected non-financial assets and for total assets by sector; estimates on other changes in volume and revaluation of non-financial assets are not available. Separate estimates of non-financial assets for NPISHs (S.15) exist in FR<sup>2</sup>, DK and NL and, partly, in DE.

A relevant question is that of the delineation of the Households sector: to compare Households’ wealth across countries, it is essential to know the classification rules and the extent to which they differ across countries’. The crucial point is which kind of market producers are classified in the sector, taking for granted that it includes consumer households. Actually, the rules prove to differ quite substantially across countries:

- DE, IT and AT classify sole proprietorships and self employers in S.14;
- IT and DE make a distinction between partnerships without independent legal status, classified in S.14, and other partnerships which are classified in Non-financial corporations; AT and DK refer to partnerships in general and state that they are not included in S.14; IT also includes in the sector private non-profit non-market units with no economic relevance and financial auxiliaries with no employees;

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<sup>2</sup> In France, the S.15 account has recently been reassessed and improved in view of the next benchmark revision, (2005 base by May 2011).

FR and NL provided no answer as to the kind of market producers included in Households, but just quoted the ESA95 general definition of the sector.

ECB refers to the ESA95 definition as adopted by EA countries.

As to the institutional arrangements concerning the production of BS for non-financial assets, in general the compilation of BS for non-financial assets by institutional sector is performed in the National Accounts Department, except in DE, where it is carried out by the National Wealth Accounts division. In FR all the stock calculated through PIM are compiled within the NA department: for Cultivated assets, Dwellings, Inventories and Land complementary information is obtained through Insee's statisticians specialising in these products.

ECB estimation of Euro area non-financial assets is based on available aggregated euro area data as well as on Euro area country data. DG-S/EAE at ECB is responsible for the data production

The number of persons engaged on a full-time basis in the production of BS by institutional sector varies from 1 to 3.

#### *Section B: Data availability*

AII.3 reports on the availability of data on non-financial assets by institutional sector and the methodology used by each respondent country for each kind of asset.

The availability of data proves to be highest for Dwellings, Other buildings and structures, Machinery and equipment and Computer Software.

Intangible fixed assets are available for DE (only the total), NL, DK, FR (except Other intangible fixed assets), AT and IT only compile stock of Computer software.

Inventories are only available in FR and NL; Valuables only in FR.

Total Land is only compiled by FR; estimates of Land underlying buildings and other structures and of Land under cultivation are available in FR, IT, and NL; DE only produces Land underlying buildings and other structures (provisional data prepared by Deutsche Bundesbank). The value of Land underlying buildings and other structures is not provided in DK: this suggests that the value of Land underlying Dwellings is at present included in the value of Dwellings, which is estimated through a direct method.

Subsoil assets only exist in FR and NL; Intangible non-produced assets only in FR.

In general, when an asset is estimated, the valuation exists for all the institutional sectors: the only exception is AT, which is not in the position of separating S.11 and S.1M.

In general the use of PIM proves to be quite widespread and mainly concentrated in Non-residential buildings and other structures, Machinery and equipment and Computer Software, while direct estimation prevails for Land.

In the case of Dwellings DK, IT and DE (both partially) use a direct method, while AT, FR and NL use PIM.

Of course PIM cannot be used for Land, so, when the data exist, they are based on direct estimations.

### *Section C: Work in progress and future plans*

DE, FR and NL publish the data on non-financial assets that they produce.

- DE: Working document “Fixed assets by sector”, t + 20 months. A publication of all available data on balance sheets together with the Deutsche Bundesbank is in preparation.
- FR: [http://www.insee.fr/fr/indicateurs/cnat\\_annu/base\\_2000/tableaux/xls/tee\\_2009.xls](http://www.insee.fr/fr/indicateurs/cnat_annu/base_2000/tableaux/xls/tee_2009.xls)
- NL: statistical database of Statistics Netherlands, Statline.

In DK Capital stocks are used in the regular publication of TFP (total factor productivity) figures (reference Nyt fra Danmarks Statistik, nr. 430, 27 September 2010).

In IT an estimate of non-financial assets limited to S.1M is compiled and disseminated by the Bank of Italy. Istat plans to publish data by spring 2011, probably in the form of a preliminary study, rather than as an official statistics.

ECB is planning a first publication/dissemination of quarterly data on non-financial assets by institutional sector for end-October 2010 with a timeliness of t+120 days.

As to future plans:

- AT is improving estimates of Dwellings for S.1M and of Land for the total economy and by institutional sector;
- IT is going to finalise the estimates of the stock of Dwellings by institutional sector for the years 1995-2008 by December 2010 and plans to improve the methodology to define estimates for Non-residential buildings and other structures, Machinery and equipment, Computer software, Land underlying buildings and structures, Land under cultivation, Consumer durables. In IT, a project was started in 2007 to produce first estimates for the main non-financial assets: dwellings, non-residential buildings and other structures, machinery and equipment, computer software, land underlying buildings and land under cultivation. For these assets (except land) an estimate for S.1 based on the Perpetual Inventory Method (PIM) was already available. The breakdown by sector of dwellings, non-residential buildings and land underlying buildings was carried out combining this approach with direct estimates (Quantity × Price) mainly based on administrative data. A provisional direct estimate has been obtained for land under cultivation too, while the value by sector of the other assets (as well as of the memorandum item “consumer durables”) was calculated through PIM. By December 2010, the estimates of the stock of dwellings by institutional sector for the years 1995-2008 will be finalised and transmitted to Eurostat. As regards the other assets, the work will go on to improve the estimation method.
- NL is planning to compile the capital account, other changes in the volume of assets and revaluation by institutional sector after the next benchmark revision.
- DK and DE are not planning any further improvement to the present production.

### III.3 Data availability

Annex 2 - Summary of the answers to question B .1

	AT	DE	DK	F	IT	NL		AT	DE	DK	F	IT	NL	
	S1						S1	P	D	D	P		P/D	AN.1114 Cultivate Assets
	S11						S11	O	D	P			P/D	
	S12						S12	-	D	P			P/D	
	S13						S13	-	D	P			P/D	
	STM						STM	P	O	D	P		P/D	
AN.1 Produced Assets														
AN.11 Fixed Assets	P	P	P	P			S1	P	P	P	P			AN.112 Intangible Fixed Assets
	S11	P	P	P			S11	P	P	P	P			
	ST2	P	P	P			ST2	P	P	P	P			
	S13	P	P	P			S13	P	P	P	P			
	STM	P	P	P			STM	P	P	P	P			
AN.111 Tangible Fixed Assets	P	P	P	P			S1		P	D	P			AN.1121 Mineral exploration
	S11	P	P	P			S11		P	D	P			
	ST2	P	P	P			ST2		P	D	P			
	S13	P	P	P			S13		P	D	P			
	STM	P	P	P			STM		P	D	P			
AN.1111 Dwellings	P	P	D	P	P	P	S1	P	P	P	P	P		AN.1122 Computer Software
	S11	P/D	D	P	D	P	S11		P	P	P	P	P	
	ST2	P/D	D	P	D	P	ST2	P	P	P	P	P		
	S13	P/D	D	P	P	P	S13	P	P	P	P	P		
	STM	P	P/D	D	P	P	STM		P	P	P	P	P	
AN.1112 Other Buildings and structures	P	I	P	P	P	P	S1	P	P	P	P	P		AN.1123 Entertainment literary or artistic originals
	S11	P	I	P	D	P	S11	P	P	P	P	P		
	ST2	P	I	P	D	P	ST2	P	P	P	P	P		
	S13	P	P	I	P	P	S13		P	P	P	P	P	
	STM	P	P	P	D	P	STM		P	P	P	P	P	
AN.11121 Non residential buildings		P/D	P	P	P	P	S1		D		P			AN.1129 Other intangible fixed assets
	S11	I	P/D	P	P	P	S11	I	D		P			
	ST2	P/D	P	P	P	P	ST2	I	D		P			
	S13	I	P/D	P	P	P	S13	D			P			
	STM	P/D	P	P	P	P	STM	D			P			
AN.11122 Other structures		P	P	P	P	P	S1		D		D			AN.12 Inventories
	S11	P	P	P	P	P	S11		D		D			
	ST2	P	P	P	P	P	ST2		D		D			
	S13	P	P	P	P	P	S13		D		D			
	STM	P	P	P	P	P	STM		D		D			
AN.1113 Machinery and equipment	P	I	P	P/D	P	P	S1		D					AN.13 Valuables
	S11	P	P/D	P	P	P	S11		D					
	ST2	P	I	P	P/D	P	ST2		D					
	S13	P	P	P/D	P	P	S13		D					
	STM	P	P/D	P	P	P	STM		D					
	AT	DE	DK	F	IT	NL		AT	DE	DK	F	IT	NL	

Label: P = PIM      D = Direct estimation      O = Other method

	AT	DE	DK	F	IT	NL		AT	DE	DK	F	IT	NL	
	S1						S1	O(*)	D	D	D		D	AN.212 Subsoil assets
	S11						S11							
	S12						S12							
	S13						S13							
	STM						STM							
AN.2 Non produced Assets				D										
AN.21 Tangible non-produced assets			D				S1							AN.213+AN.214 Non-cultivated biological and water resources
			D				S11							
			D				S12							
			D				S13							
			D				STM							
AN.211 Land			D	D			S1			D				AN.22 Intangible non-produced assets
			D	D			S11			D				
			D	D			S12			D				
			D	D			S13			D				
			D	D			STM			D				
Land underlying buildings and structures	O	D	P/D	D			S1							
	S11	O	D	P/D	D		S11							
	S12	O	D	P/D	D		S12							
	S13	O	D	P/D	D		S13							
	STM	O	D	P/D	D		STM							
Land under cultivation		D	D	D			S1							
		D	D	D			S11							
		D	D	D			S12							
		D	D	D			S13							
		D	D	D			STM							
Other land		D					S1							
		D					S11							
		D					S12							
		D					S13							
		D					STM							
	AT	DE	DK	F	IT	NL		AT	DE	DK	F	IT	NL	

(\*) Refer to the value of oil and gas fields. The compilation method is the present value of the expected future net income streams from the fields

Label: P = PIM      D = Direct estimation      O = Other method

**QUESTIONNAIRE ON THE COMPILATION OF  
BALANCE SHEETS (BS) (*LIMITED TO NON-FINANCIAL ASSETS*)**

<b>Country</b>	
<b>Institution</b>	
<b>Name of respondent</b>	
<b>Phone</b>	
<b>E-mail</b>	
<b>Date DD/MM/YY</b>	

*Please return the completed questionnaire to [luisa.picozzi@istat.it](mailto:luisa.picozzi@istat.it) by 5 October 2010*

**Section A: Overview**

1. Do you compile the whole system of accounts from the opening to the closing BS (*answer limited to non financial assets*) (Capital account, other changes in the volume of assets account, Revaluation account)?

2. If yes, are all the accounts consistent as to the classification of institutional units and the rules applied?

3. Do you compile capital accounts and/or BS (*answer limited to non-financial assets*) for NPISHs (S.15)?

4. Please describe the type of institutional units you classify in the Households sector (e.g. households as consumers only; including enterprises with less than 5 employees; including partnerships etc.).

5. Can you provide in brief a general description of the organisation and of the institutional arrangements concerning the production of BS (*answer limited to non-financial assets*) by (all) institutional sectors, including an indication of the number of people engaged in the estimation?

## Section B: Data availability

1. Which non-financial assets do you estimate for the institutional sectors? Please compile the following table. For each non-financial asset and for each institutional sector, please specify whether you use PIM (P), a direct estimation (D) or any other method (please describe) (O). Indicate ND if the data are not available.

Code	List of variables	S1	S11	S12	S13	S14+15
AN.1	1. Produced assets					
AN.11	2. Fixed assets					
AN.111	3. Tangible fixed assets					
AN.1111	4. Dwellings					
AN.1112	5. Other buildings and structures					
AN.11121	6. Non-residential buildings					
AN.11122	7. Other structures					
AN.1113	8. Machinery and equipment					
AN.1114	9. Cultivated assets					
AN.112	10. Intangible fixed assets					
AN.1121	11. Mineral exploration					
AN.1122	12. Computer software					
AN.1123	13. Entertainment, literary or artistic originals					
AN.1129	14. Other intangible fixed assets					
AN.12	15. Inventories					
AN.13	16. Valuables					
AN.2	17. Non-produced assets					
AN.21	18. Tangible non-produced assets					
AN.211	19. Land					
	<i>Land underlying buildings and structures</i>					
	<i>Land under cultivation</i>					
	<i>Other land</i>					
AN.212	20. Subsoil assets					
AN.213 + AN.214	21. Non-cultivated biological resources and water resources					
AN.22	22. Intangible non-produced assets					

2. Are the stocks of non-financial assets by institutional sector consistent with the stocks for Total economy?

### **Section C: Work in progress and future plans**

1. Do you publish data on non-financial assets by institutional sector (or for Households only)? Please indicate the timeliness of the data dissemination.

2. Could you indicate recent publications by your institution (regular or one-off) that make use of these BS data to analyse economic developments?

3. If you do not produce data on non-financial assets by institutional sector yet, are you planning to produce them in the medium/short term? Please describe in brief the main deadlines of the work you are planning.

## ANNEX IV

*"Broadening income measurement to non-market domestic activities and leisure time"*

### AI4.1: Availability of Time Use Surveys across countries

Country	Years
Austria	1981; 1992; 2008/2009
Belgium	1965; 1999; 2005/2006
Bulgaria	1965; 1988; 2001/2002
Denmark	1964; 1975; 1987; 2001; 2008/2009
Estonia	1999/2000
Finland	1979; 1987; 1999-2000
France	1966; 1974/1975; 1986; 1998/1999
Germany	1965; 1991/1992; 2001/2002
Hungary	1965; 1976/1977; 1986/1987; 1999/2000
Italy	1979/1980; 1989; 2002/2003; 2008/2009
Latvia	2003
Lithuania	2003
The Netherlands	1975; 1980; 1985; 1990; 1994; 2001; 2005
Poland	1965; 1975/1976; 1984; 2003/2004
Portugal	1999
Romania	2000
Slovak Republic	2006 (pilot survey)
Slovenia	2000/2001
Spain	2002-2003
Sweden	1991; 2000/2001
United Kingdom	1961; 1974/1975; 1983/1984; 1987; 1995; 2000/2001; 2005

Source: Eurostat; HETUS data base; Center of Time Use Research

**AIV.2: Breakdown of domestic activities for women and men aged 20 to 74 (hours:minutes)**

	Belgium	Germany	Estonia	Spain	France	Italy	Latvia	Lithuania
<b>WOMEN</b>								
Food preparation	1:01	0:49	1:21	1:20	1:06	1:19	1:06	1:18
Dish washing	0:22	0:21	0:26	0:29	0:20	0:35	0:22	0:22
Cleaning and other upkeep	0:57	0:53	0:53	1:01	1:08	1:30	0:42	0:59
Laundry: ironing: handicrafts	0:37	0:28	0:35	0:31	0:30	0:37	0:21	0:25
Gardening	0:06	0:09	0:14	0:03	0:09	0:05	0:20	0:15
Construction and repairs	0:05	0:03	0:03	0:01	0:04	0:01	0:01	0:02
Shopping and services	0:36	0:38	0:29	0:35	0:37	0:36	0:21	0:20
Childcare	0:35	0:26	0:34	0:30	0:28	0:28	0:22	0:25
Other domestic work	0:13	0:24	0:27	0:24	0:08	0:09	0:20	0:23
Total Domestic Work	4:32	4:11	5:02	4:55	4:30	5:20	3:56	4:29
<b>MEN</b>								
Food preparation	0:22	0:16	0:22	0:19	0:18	0:11	0:15	0:20
Dish washing	0:10	0:08	0:06	0:04	0:06	0:05	0:04	0:04
Cleaning and other upkeep	0:21	0:25	0:36	0:13	0:22	0:15	0:27	0:39
Laundry: ironing: handicrafts	0:03	0:03	0:02	0:01	0:02	0:00	0:01	0:02
Gardening	0:17	0:10	0:12	0:09	0:18	0:15	0:16	0:11
Construction and repairs	0:24	0:18	0:33	0:06	0:32	0:06	0:17	0:17
Shopping and services	0:26	0:28	0:21	0:19	0:27	0:22	0:12	0:13
Childcare	0:19	0:10	0:11	0:12	0:09	0:11	0:04	0:07
Other domestic work	0:16	0:21	0:25	0:14	0:07	0:10	0:14	0:16
Total Domestic Work	2:38	2:21	2:48	1:37	2:22	1:35	1:50	2:09

	Hungary	Poland	Slovenia	Finland	Sweden	United Kingdom	Norway
<b>WOMEN</b>							
Food preparation	1:27	1:30	1:25	0:55	0:50	0:59	0:50
Dish washing	0:30	0:29	0:28	0:15	0:21	0:18	0:21
Cleaning and other upkeep	0:47	0:48	0:56	0:49	0:32	0:50	0:36
Laundry: ironing: handicrafts	0:33	0:25	0:33	0:29	0:20	0:27	0:27
Gardening	0:19	0:10	0:25	0:08	0:10	0:07	0:09
Construction and repairs	0:02	0:02	0:02	0:04	0:04	0:04	0:04
Shopping and services	0:25	0:30	0:21	0:32	0:29	0:39	0:27
Childcare	0:35	0:39	0:29	0:28	0:29	0:33	0:34
Other domestic work	0:20	0:12	0:19	0:16	0:25	0:18	0:19
Total Domestic Work	4:58	4:45	4:58	3:56	3:42	4:15	3:47
<b>MEN</b>							
Food preparation	0:14	0:25	0:17	0:21	0:25	0:26	0:23
Dish washing	0:04	0:06	0:04	0:04	0:10	0:09	0:08
Cleaning and other upkeep	0:28	0:29	0:32	0:34	0:20	0:20	0:19
Laundry: ironing: handicrafts	0:01	0:02	0:01	0:02	0:04	0:04	0:02
Gardening	0:31	0:12	0:32	0:06	0:11	0:12	0:10
Construction and repairs	0:17	0:19	0:24	0:21	0:20	0:17	0:23
Shopping and services	0:16	0:21	0:16	0:26	0:22	0:24	0:21
Childcare	0:15	0:16	0:12	0:11	0:16	0:12	0:17
Other domestic work	0:34	0:12	0:22	0:11	0:22	0:14	0:19
Total Domestic Work	2:40	2:22	2:40	2:16	2:39	2:18	2:22

*Source: Eurostat*

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