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Deliverable 22.2

HHOT

A new flexible Hypothetical Household Tool for tax-benefit simulations in EUROMOD

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Abstract

In this paper we present a new state-of-the-art tool for tax-benefit hypothetical household simulations in EUROMOD. The Hypothetical Household Tool (HHoT), allows the user to specify in a user-friendly, and very flexible environment the relevant parameters to examine tax liabilities and benefit entitlements for a wide range of hypothetical household types. Subsequently, the European microsimulation model EUROMOD calculates tax liabilities and benefit entitlements. Results can be easily used to illustrate and better understand how tax-benefit systems work and how social and fiscal policies interact. Furthermore, results can also be used for constructing (comparative) policy indicators, for instance with regard to benefit adequacy, financial work incentives, and implicit equivalence scales. An important strength of this tool is that it allows for microsimulations and hypothetical household simulations within a single, validated and comparative framework (EUROMOD). In this paper, we first explain the main characteristics of HHoT and how it works in practice. Subsequently, we present the first results of a validation study, in which we compare the results of HHoT with those of the OECD Tax-Benefit calculator and the CSB Minimum Income Protection Indicator dataset (CSB-MIPI). This comparison shows that at the level of disposable household incomes outcomes generally converge, but that for individual policies more divergence exists. We provide some first indications of where differences are largest, and explain why direct comparisons of the three sources of information are not straightforward.

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1. Introduction

In order to evaluate the outcomes of policies and to provide relevant information for evidence-based policy making, a proper understanding of the functioning and interaction of policies is required. Tax-benefit hypothetical household simulations are an important tool for better understanding the interactions between tax-benefit policies and for detecting trends in tax and benefit levels. These simulations are based on a set of well-defined hypothetical households (or so-called ‘model families’). The hypothetical households are defined on the basis of a clear set of assumptions with regard to the relevant parameters to examine tax liabilities and benefit entitlements (e.g. household composition, place of residence, health status, employment status, etc.). On the basis of these sets of characteristics, a microsimulation model calculates tax liabilities, benefit entitlements and disposable income for the specified hypothetical households. Subsequently, net disposable incomes and the level of relevant income components can be used in further analyses.

The primary advantage of tax-benefit hypothetical household simulations is their illustrative function: they are easy to understand and show how tax-benefit policies work and interact. In addition, hypothetical household simulations can be used to construct indicators for evaluating the adequacy, fairness and work incentives of tax-benefit policies. They are also a very convenient tool for cross-country comparisons, on the condition that assumptions are equivalent across countries. Note that - by their very nature - hypothetical household simulations cannot be used for distributional analysis. In contrast, microsimulations, when making use of representative data, can be used for that purpose. In many ways, hypothetical household simulations are complementary to tax-benefit microsimulations that make use of representative samples of the population. Whereas the former have the advantage of simplicity, but only provide information for a limited set of hypothetical households, the latter can offer estimates that are representative for the population, but are sometimes more difficult to interpret because the interactions between the design effect of policies and the effect of the composition of the population cannot be distinguished as clearly. Also, when microdata are lacking for specific vulnerable groups (due to small sample sizes), hypothetical household simulations can provide further insights.

Currently, hypothetical household simulations are brought together in databases such as CSB-MIPI (e.g. Van Mechelen *et al.*, 2011) and SaMip (e.g. Nelson, 2010). The main disadvantage of these databases is that they contain information only on a restricted number of hypothetical households, and that it is not possible to change the underlying characteristics, or policy rules (e.g. to evaluate the effects of a policy reform). In contrast, the OECD has developed a tax-benefit calculator, which allows for specifying more flexibly the characteristics of hypothetical households (e.g. Immervoll *et al.*, 2004; Immervoll, 2010). However, for complex household types, the model is not very user-friendly. One needs to access the STATA datafile or the STATA do-file in order to change the underlying assumptions. In addition, if one wants to complement the results with microsimulations, one needs to fall back on other tax-benefit models which may not provide consistent results.

In this paper, we present a new Hypothetical Household Tool, HHoT. This tool has been developed as part of the InGRID project, funded by the European Commission’s research programme (FP7). The unique features of HHoT are: (1) its flexibility and user-friendliness for specifying hypothetical households; (2) its integration in a regularly updated, validated and comparative microsimulation framework, namely EUROMOD. EUROMOD is the tax-benefit microsimulation model for the European Union (Sutherland & Figari, 2013). EUROMOD offers an infrastructure with already

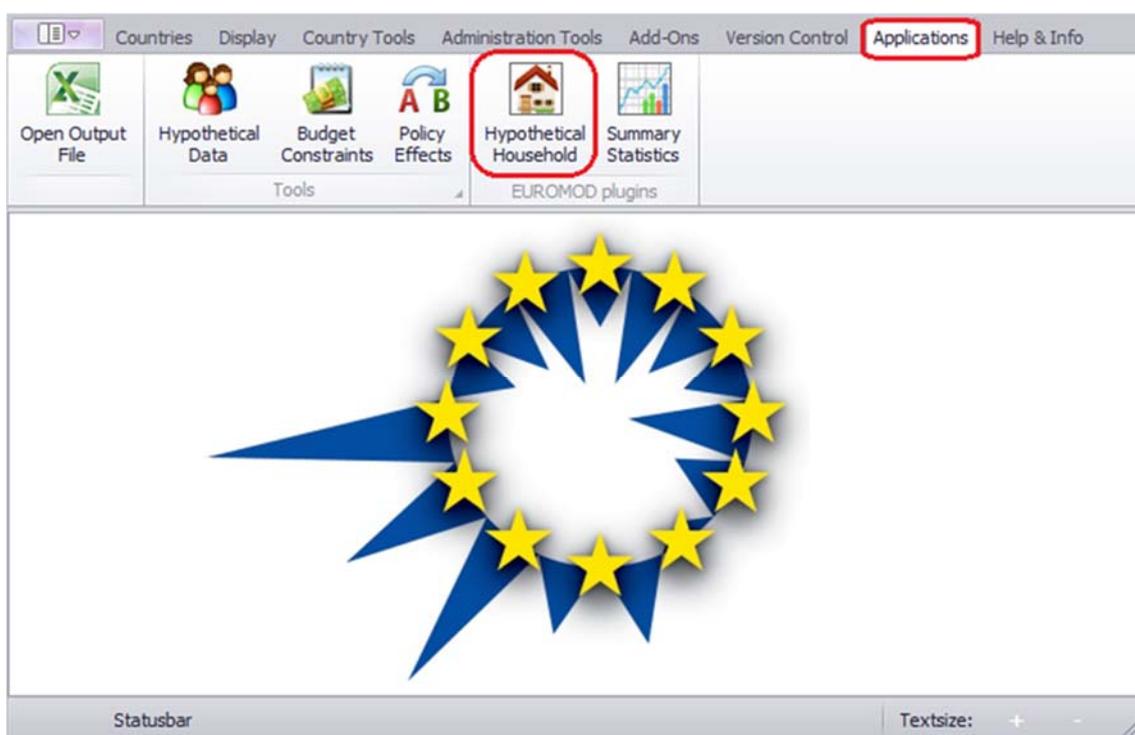
coded and validated up-to-date policy rules for all EU countries. The EUROMOD interface makes it easy to implement reforms and simulate different scenarios. Until now EUROMOD has been used mainly for calculations on the basis of the EU-SILC input data. With HHoT, it is possible to easily design hypothetical household data. Using EUROMOD for the simulation of tax-benefit liabilities and entitlements for hypothetical households leads to the estimation of comparable indicators, which are - in addition - consistent with microsimulation results. It can also help to communicate EUROMOD results.

This paper is structured as follows. First, we briefly introduce HHoT and explain its basic features. The second and main part of this paper is concerned with a first attempt to validate the output based on HHoT. In particular, we compare the output of EUROMOD, using HHoT for defining a limited number of hypothetical households, with the results of CSB-MIPI and the OECD tax-benefit calculator. We focus on policies in 2012 and cover nearly all EU Member States. We refer to the output from CSB-MIPI, the OECD tax-benefit calculator and output from EUROMOD, using HHoT, as three databases or data sources, although, strictly speaking the OECD tax-benefit calculator and EUROMOD are not databases in the classical sense of the word. We conclude with a brief summary of the main outcomes of the validation exercise, as well as with a brief discussion of the next steps for further improving HHoT.

2. What is HHoT?

The Hypothetical Household Tool (HHoT) is a EUROMOD plug-in for designing hypothetical households and generating data according to the chosen household characteristics. These hypothetical household data are then used to estimate the effects of taxes and benefits on household disposable income. The HHot plug-in can be accessed within the standard EUROMOD user interface. It can be found in the EUROMOD ribbon bar under *Applications*.¹

Figure 2.1 Screenshot of the EUROMOD user interface, with indication of HHoT plugin

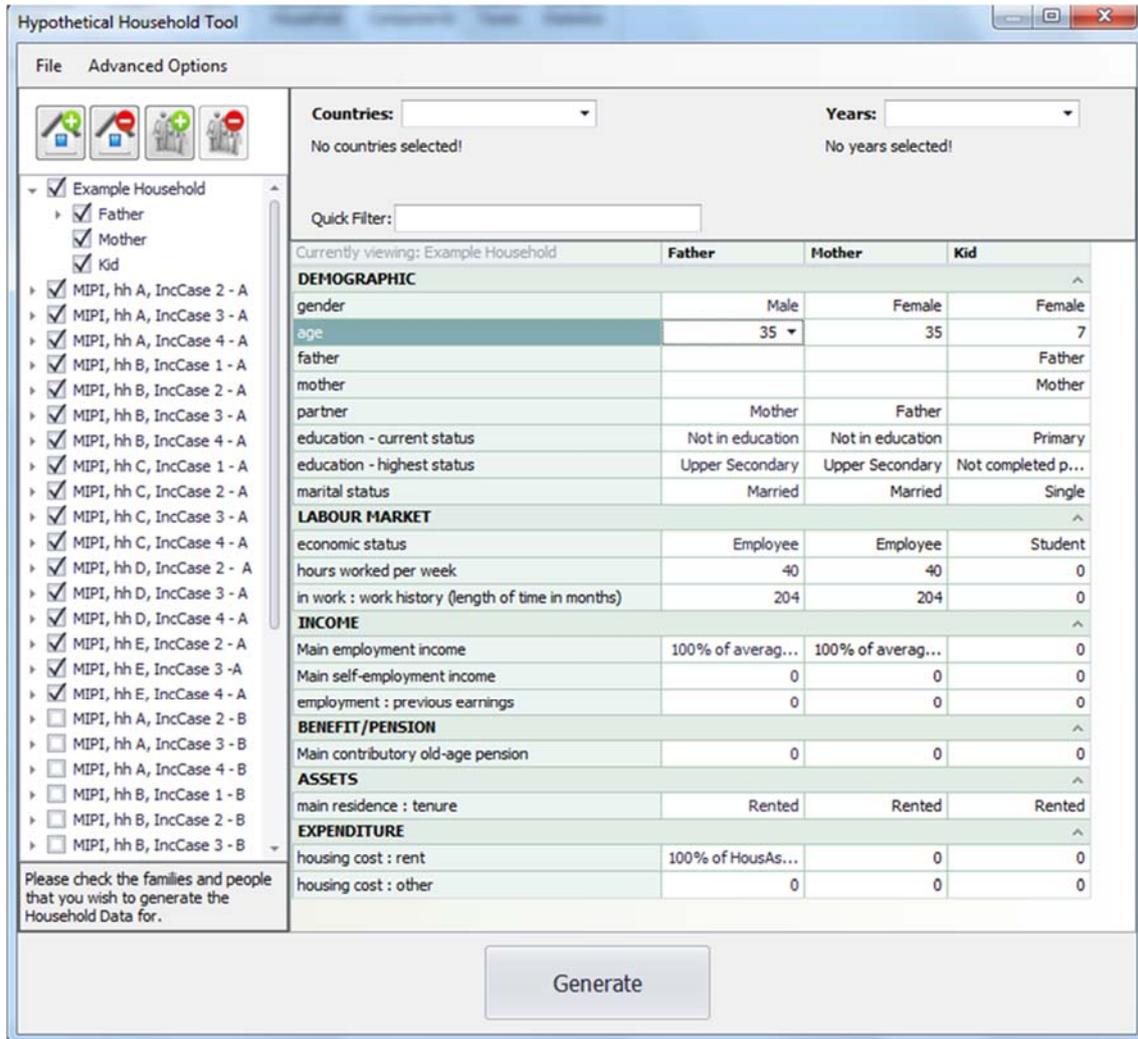


In HHoT the user can construct hypothetical households of her choice. The flexibility of the tool allows the user to specify a broad spectrum of different hypothetical households. The specification of household composition and other characteristics is only limited by the scope of variables in EUROMOD input data. For example, three (or more) generation households can be included, as well as a variety of labour market statuses and income sources. HHoT allows the user to compose, save and load his/her own database of hypothetical households.

The screenshot below shows the interface of HHoT. The left panel includes the household types (as defined by the user; this illustration shows households designed to be the same as in the CSB-MIPI database). The main panel shows the members of a selected household (in this case, the 'Example Household') and their individual as well as household characteristics.

¹ A first version of EUROMOD incorporating HHoT is planned to be released to the user community in early 2017, covering policies up to 2016.

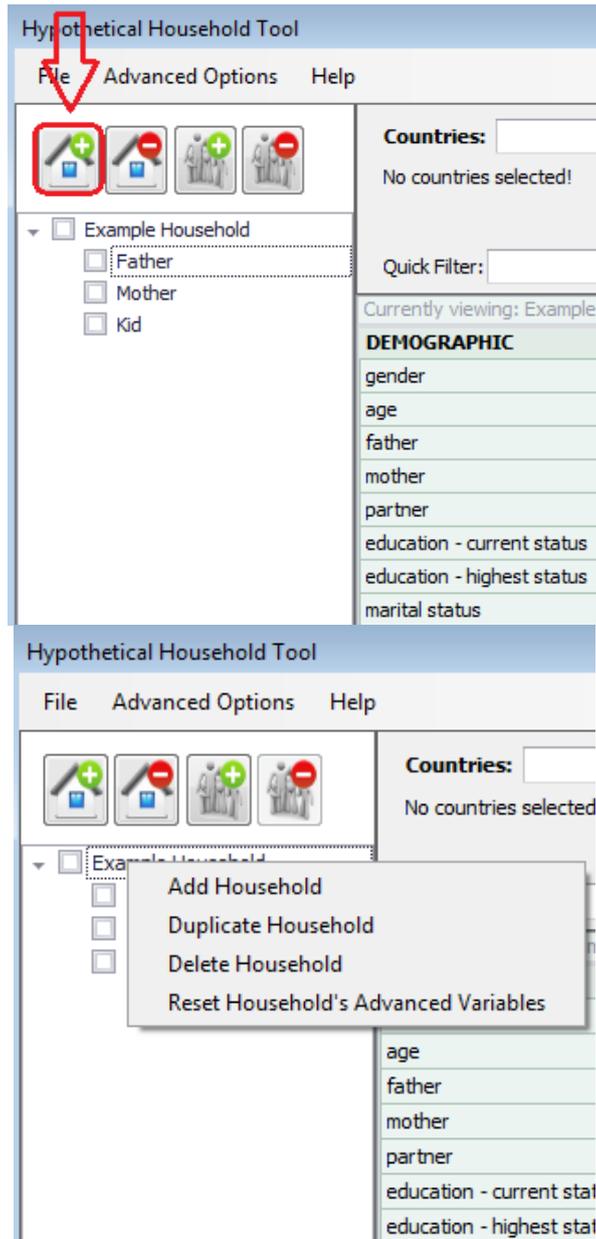
Figure 2.2 Screenshot of HHoT user interface for specifying hypothetical households



* The names of the household types shown in the left panel refer to CSB-MIPI household types (see next section below).

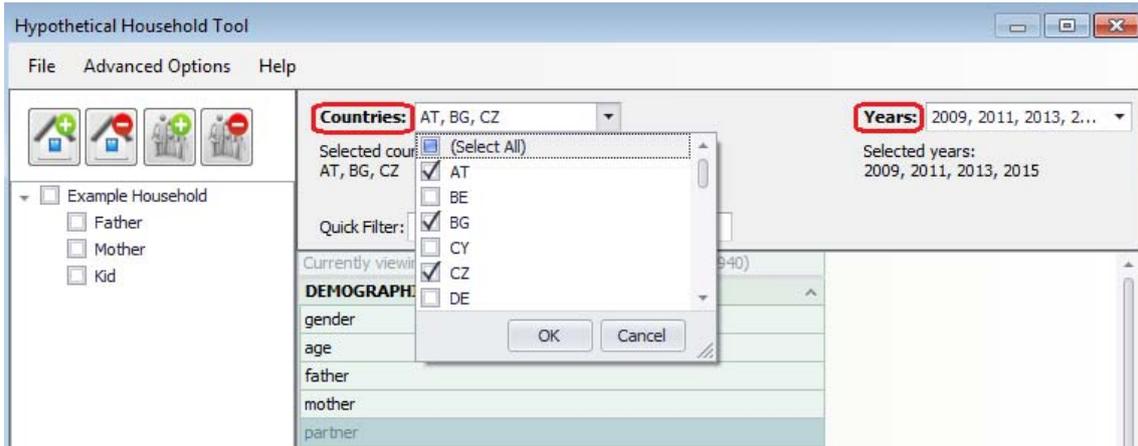
When the user opens HHoT for the first time, the plug-in already contains an example household (mother, father and a child). To add a new household, click the 'Add Household' button as shown in the left screenshot of Figure 2.3. The adjacent buttons serve to delete a household, to add a household member or to delete a household member. Alternatively, households and household members can be added by clicking on existing households or household members using the right-hand side mouse button (screenshot at the right of Figure 2.3). This action also allows for duplicating or deleting a household or household member. The user can specify freely the name of each household and each household member.

Figure 2.3 Screenshots of HHoT user interface for adding a household



In the top panel (see Figure 2.4), the user can select the countries and years for which input data will be generated. With one click, the same hypothetical household can be generated for all policy years and countries that are selected. To generate input data, at least one country and one year should be selected. HHoT generates a separate input file for each selected year and country. The user can select from all EU Member States and all policy years from 2009 included in EUROMOD.

Figure 2.4 Screenshot of HHoT for selecting countries and years



In the main panel, the user can define the basic characteristics of each household member. For each household member, an additional column with background characteristics is added. The basic characteristics are classified into six categories: demographics, labour market characteristics, income components, benefits/pensions and expenditures (Figure 2.5).

Figure 2.5 Screenshot of the main panel of the HHoT interface

Currently viewing: Example Household (idhhtype: Father Mother Kid)	Father	Mother	Kid
DEMOGRAPHIC ^			
gender	Male	Female	Male
age	35	35	7
father			Father
mother			Mother
partner	Mother	Father	
education - current status	Not in education	Not in education	Lower Secondary
education - highest status	Post Secondary	Post Secondary	Primary
marital status	Married	Married	Single
LABOUR MARKET ^			
economic status	Employee	Inactive	Student
hours worked per week	40	0	0
in work : work history (length of time in months)	200	0	0
INCOME ^			
Main employment income	1000	0	0
Main self-employment income	0	0	0
employment : previous earnings	0	0	0
BENEFIT/PENSION ^			
Main contributory old-age pension	0	0	0
ASSETS ^			
main residence : tenure	Rented	Rented	Rented
EXPENDITURE ^			
housing cost : rent	250	0	0
housing cost : other	0	0	0

In HHoT, characteristics of households and household members are specified using three types of variables. **Connection variables** determine the relationships between household members. For example: in Figure 2.5 the variable *partner* for Father sets the mother as his partner. **Categorical variables** are variables with two or more categories, e.g. gender. Most variables are **numeric variables**. All numeric variables can be set as either single values or ranges, of either specific amounts or percentages based on a reference table. Figure 2.6 below shows the Numeric Variable Editor. It is possible to refer to a range of values by filling in a starting and ending value. If the user defines a range, the hypothetical household is automatically copied for each specified step of the indicated range when generating the EUROMOD input file.

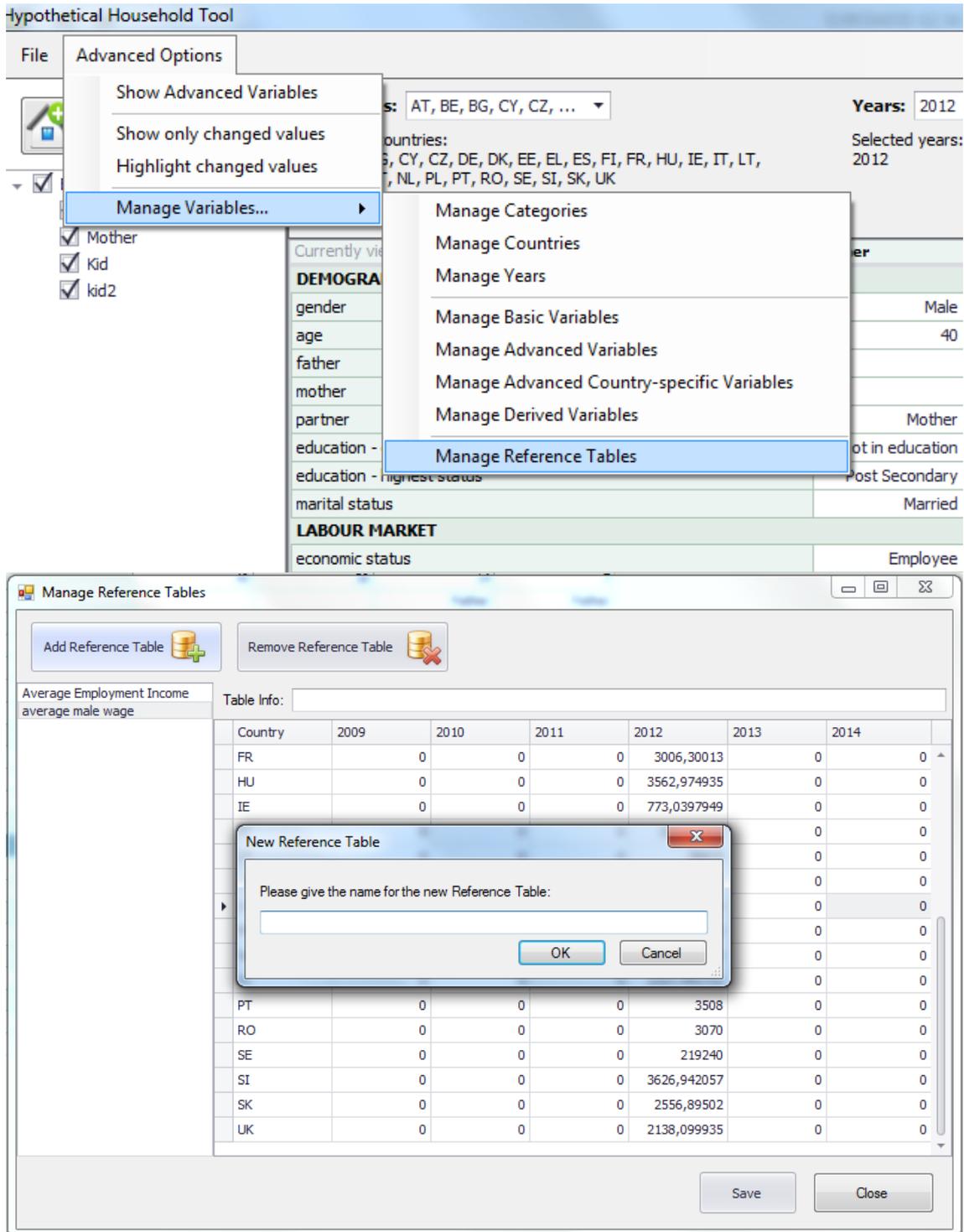
Figure 2.6 Screenshot of the Numeric Variable Editor in HHoT

Variable	Value	Reference
Main employment income	100%-200% ...	0 0 0
Main self-employment income		
employment : previous earnings		
BENEFIT/PENSION		
Main contributory old-age pension		
ASSETS		
main residence : tenure		
EXPENDITURE		
housing cost : rent		
housing cost : other		

<input type="radio"/> Value	<input checked="" type="radio"/> Reference	Average Employment...
Starting Value:	100	%
<input checked="" type="checkbox"/> Ending Value:	200	%
Step:	10	%

HHoT includes a reference table with average employment incomes but the user can include his/her own reference tables. Figure 2.7 shows how to add a reference table. The user can copy/paste a table from Excel in the 'Manage Reference Tables' screen (under 'Advanced Options'). Reference tables can include, for example, minimum wages, averages wages or housing costs for various years and countries. The Numeric Variable Editor allows one to specify the reference table that is to be used for generating the hypothetical households. For example: in Figure 2.6, the reference table 'Average Employment Income' is being used to define the variable 'main employment income'.

Figure 2.7 Screenshot of how to add a reference table



By default the main panel in HHoT only includes *basic variables* (i.e. variables that users need to fill in with values). The basic variables cover the main individual and household characteristics, such as age, gender, education, marital status, economic status, employment income, etc. *Advanced variables* provide some additional characteristics. For simplicity advanced variables come with already predefined ‘default’ values. They are shown after checking the ‘Show Advanced Variables’ option in the ‘Advanced Options’ menu (see Figure 2.8). Many advanced variables are country specific. Therefore, this option only works if at least one country is selected. The list of all advanced variables with their

default values is shown by ticking the ‘Manage Advanced Variables’ option (under ‘Manage Variables’ in the ‘Advanced Options’ menu – see Figure 2.9). Note that these default values can also be changed by users. Advanced variables that have different default values depending on the country (for example, demographic variables related to region) are shown (and can be changed) by ticking the ‘Manage Advanced Country-Specific Variables’ option (under ‘Manage Variables’ in the ‘Advanced Options’ menu).

The ‘Quick Filter’ can be used to determine which variables are shown in the main panel of the HHoT interface. It can also help users to find specific variables in the editor of advanced and derived variables (see Figure 2.10).

HHoT also includes some variables, the so-called ‘*derived variables*’ that may change their values depending on the values of other variables. For example, if a person’s economic status is set as employee, the derived variables ‘Months in employment’ and ‘Months in unemployment’ will take the default values of 12 and 0 respectively; if a person’s economic status is set as unemployed, these variables will take the values of 0 and 12 respectively. The conditional default values of all derived variables are shown (and can also be changed) by ticking the ‘Manage Derived Variables’ option (under ‘Manage Variables’ in the ‘Advanced Options’ menu).

Figure 2.8 Screenshot to show advanced variables

The screenshot shows the 'Advanced Options' menu with the following items: 'Show Advanced Variables' (checked), 'Show only changed values', 'Highlight changed values', and 'Manage Variables...'. Below the menu, there are checkboxes for 'Mother' and 'Kid'. The main panel displays a table for 'Example Household (idh)' with columns for 'Father' and 'Mother'. The table is titled 'DEMOGRAPHIC' and lists various variables. Advanced variables are highlighted in grey.

Variable	Father	Mother
gender	Male	Female
age	35	35
father		
mother		
partner	Mother	Father
education - current status	Not in education	Not in education
education - highest status	Post Secondary	Post Secondary
marital status	Married	Married
region : nuts level 1 (drgn1) [used in CZ]	Czech Republic	Czech Republic
region : nuts level 2 (drgn2) [used in CZ]	Praha	Praha
citizenship (dcz) [used in AT]	Same country ...	Same country ...
disability (ddi) [used in all selected countries]	No	No
disability : level (%) (ddilv) [used in AT, BG]	0	0
municipality population (dmp) [used in CZ]	>=100000	>=100000

* The advanced demographic variables for the three selected countries are those in grey.

Figure 2.9 Screenshot to show the advanced variables editor

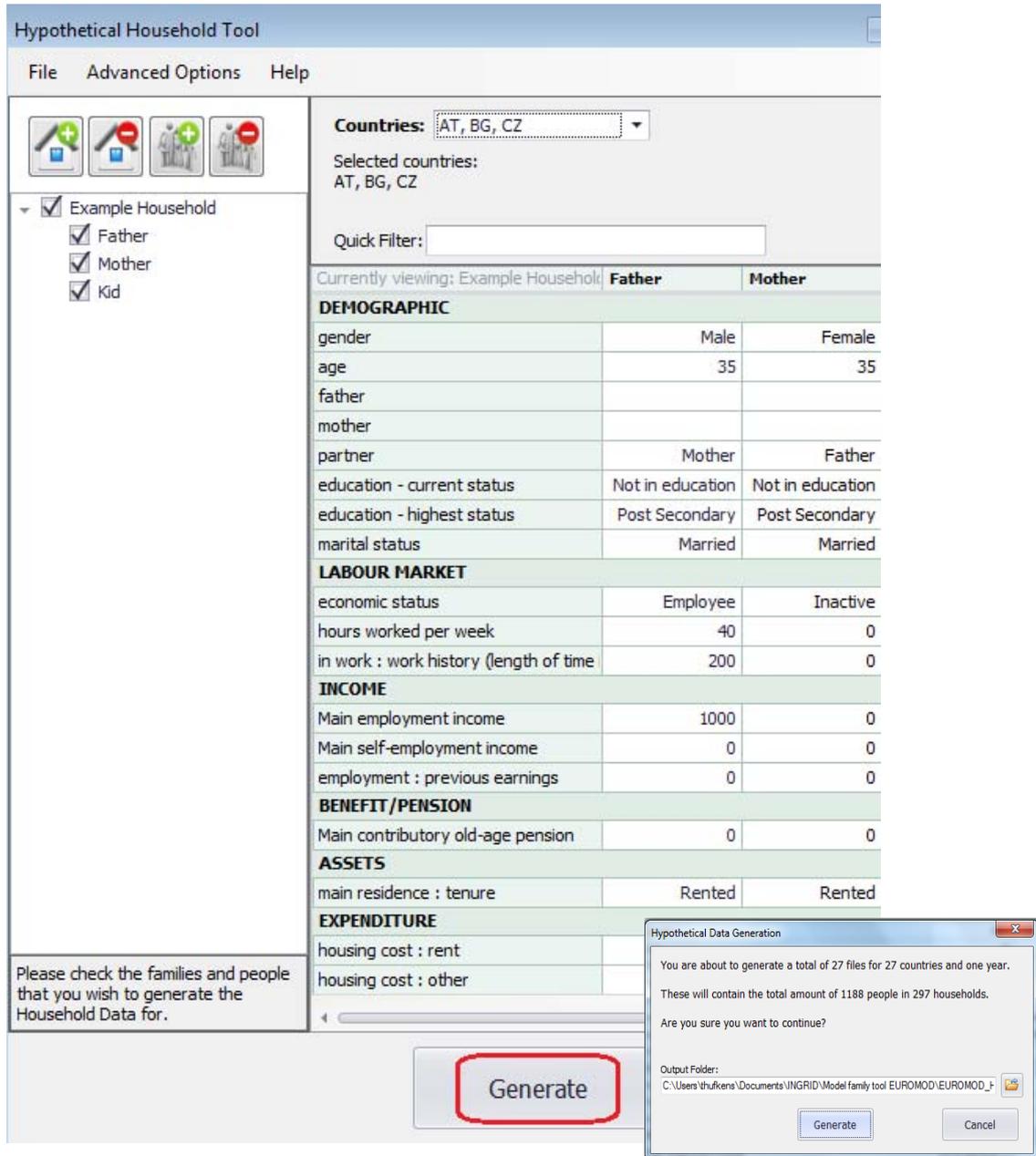
Advanced Variables Editor								
Variable Name	Category	Description	Editor Type	Default Value	Value Range	Text Range	Countries	
afc	ASSETS	financial ca...	EditorNumeric	0			AT, BE, ...	
aiv	ASSETS	property va...	EditorNumeric	0			DK	
aldagar	ASSETS	land : agric...	EditorNumeric	0			LT	
aldagariv	ASSETS	land : agric...	EditorNumeric	0			PL	
aldar	ASSETS	land : area i...	EditorNumeric	0			LT, PL	
aldnaar	ASSETS	land : non a...	EditorNumeric	0			PL	
amolv	ASSETS	mortgage : ...	EditorNumeric	0			BE, EL	
amoyl	ASSETS	mortgage : ...	EditorNumeric	0			BE, EL	
amriv	ASSETS	main reside...	EditorNumeric	0			IT	
amrmv	ASSETS	main reside...	EditorNumeric	0			IE, LT	
amrrm	ASSETS	main reside...	EditorNumeric	3			EE, EL, UK	
amrtp	ASSETS	main reside...	EditorCombo	2	1#2	House#Flat	LT	
aobiv	ASSETS	other buildi...	EditorNumeric	0			IT	
aoc	ASSETS	other capital	EditorNumeric	0			BG, PL, RO	
bac	BENEFI...	accident/dis...	EditorNumeric	0			AT	
bac00	BENEFI...	accident/dis...	EditorNumeric	0			AT	
bac01	BENEFI...	accident/dis...	EditorNumeric	0			AT	
bacot	BENEFI...	accident/dis...	EditorNumeric	0			AT	
bacpm	BENEFI...	accident/dis...	EditorNumeric	0			LU	
bca01	BENEFI...	receiving ca...	EditorNumeric	0			LU	

Figure 2.10 Screenshot of Quick Filter in HHoT

Countries: AT, BG, CZ	Years: 2009, 2011, 2013, 2015		
Selected countries: AT, BG, CZ	Selected years: 2009, 2011, 2013, 2015		
Quick Filter: employment			
Currently viewing: Example Household (idhhtype: 143230940)	Father	Mother	Kid
INCOME ^			
Main employment income	1000	0	0
Main self-employment income	0	0	0
employment : previous earnings	0	0	0
employment : 02 (yem02) [used in BG]	0	0	0
employment : non reported (yemnr) [used in BG]	0	0	0
self employment : business (ysebs) [used in BG]	0	0	0
self employment : non reported (ysenr) [used in BG]	0	0	0
self employment : taxable (ysetx) [used in BG]	0	0	0
BENEFIT/PENSION ^			
unemployment : complement (buncm) [used in AT]	0	0	0
unemployment : non-contributory (bunnc) [used in AT]	0	0	0
unemployment : non-contributory : months per year (bunncmy) [u	0	0	0
unemployment : other (bunot) [used in AT, BG]	0	0	0
unemployment : training (buntr) [used in AT]	0	0	0

If all basic variables are filled in, the user can generate the Hypothetical Data, i.e. the EUROMOD input data to be used for tax-benefit policy simulations. HHoT generates hypothetical data for all selected policy years and countries. The input files include all hypothetical households that are selected in the main panel and contain all household characteristics, labour market information and other input variables EUROMOD needs to simulate the tax-benefit policies. These files are used as input files for EUROMOD, as if they were a microdata file. By selecting multiple countries and years, and specifying ranges in the case of numeric variables, the number of generated hypothetical households can easily be very high. Therefore, before creating the hypothetical data a warning is issued by the tool to inform the user about the number of hypothetical households and individuals that will be created (see Figure 2.11).

Figure 2.11 Screenshot of how to generate Hypothetical Data in HHOt



After running EUROMOD using the generated hypothetical data files as input, the model produces output files that can be analysed with any statistical software package, including Excel. The output files are txt-files and include the same variables as those included in the EUROMOD input data, enhanced with the simulated tax liabilities, benefit entitlements and disposable income.

3. Validation of HHoT

In this section, we describe the exercise we have set up for validating the output of HHoT. We first describe the approach. Subsequently, we explain in some detail the assumptions of the validation exercise and the characteristics of the hypothetical households. In the third subsection we present the results.

3.1 Approach

In order to validate HHoT, we compared the results of a set of simulations to the results of two sources of information on net incomes of hypothetical households in Europe: the CSB-MIPI dataset and the OECD tax-benefit calculator.

CSB-MIPI is the Minimum Income Protection Indicators dataset, developed by the Herman Deleeck Centre for Social Policy at the University of Antwerp (cf. Van Mechelen *et al.*, 2011). CSB-MIPI primarily provides information on the design and the adequacy of minimum income schemes. The database includes 25 EU countries (Malta, Cyprus and Croatia are not included) and some non-EU countries. The information has been collected by researchers of the Herman Deleeck Centre for Social Policy at the University of Antwerp, with the help of national experts (at least one for each country in the dataset). The main part of the dataset consists of tax-benefit hypothetical household simulations of the income components and the net disposable income package of five hypothetical households in different income situations.²

The OECD tax-benefit calculator is a STATA-based model that calculates the taxes and benefits for hypothetical households living in OECD countries (and most non-OECD EU countries). The tool is built to find out how taxes and social benefits in OECD countries affect incomes of people in and out of work. Users of the OECD tax-benefit calculator can choose between a variety of household types and earnings levels.

To compare the results of the three databases we will look at both the income components and the total disposable income for a set of hypothetical households. We start from the hypothetical households, income cases and assumptions as defined in the CSB-MIPI database, since this dataset only provides information for a limited number of predefined households and income situations, and does not allow for altering the characteristics of the hypothetical households (for a detailed description see Van Mechelen *et al.*, 2011). Both the OECD tax-benefit calculator and HHoT provide sufficient flexibility to construct households that are largely identical to cases that are included in the CSB-MIPI dataset. The most recent information in the CSB-MIPI dataset refers to 2012. This validation exercise therefore focuses on 2012 policies. We include all 27 EU-member states (not Croatia). Malta and Cyprus are not included in the HHoT-CSB-MIPI comparison as both countries are lacking in CSB-MIPI. Estonia is excluded from the HHoT-OECD comparison as it was not available in the OECD tax-benefit calculator at the time of validation.

As we will see, the three tools produce very similar net disposable incomes. However, if we look at each income component separately, the differences between data sources become more apparent. This is largely due to the fact that income components are classified rather differently across data sources. For example in Bulgaria the amounts of social assistance and housing allowance differ

² CSB-MIPI, <http://www.centrumvoorsociaalbeleid.be/index.php?q=node/3270>

between data sources, although the net disposable income is very similar. Not all standard income lists in EUROMOD are comparable with the income components in CSB-MIPI or the OECD data. To compensate for this, additional aggregated variables have been constructed to compare the three data sources.

Other explanatory factors for differences between datasets are discrepancies in the precise reference date, so-called ‘hidden’ assumptions, the fact that not all benefits or policies are included in each and every database and, possibly, coding/simulation errors. In relation to the reference date, policies in CSB-MIPI refer to the rules and regulations on 1 January 2012, in the OECD tax-benefit calculator policies refer to 1 July 2012 and in HHoT they refer to 30 June 2012. As regards the ‘hidden’ assumptions, both CSB-MIPI and the OECD tax-benefit calculator have built-in country-specific assumptions, e.g. on working experience. Therefore, it is not easy to align other models completely with the assumptions underlying the CSB-MIPI-dataset.

It should be clear that in this exercise, we do not ‘validate’ the results from EUROMOD using households constructed by HHoT in the sense of checking the correctness of the simulations. The EUROMOD policy simulations are themselves validated using a different procedure which is documented in the Country Reports.³ Instead, the comparisons with CSB-MIPI and OECD highlight the potential reasons for discrepancies between the three sets of results due to differences in assumptions or other reasons. Any or all of the datasets may still contain errors related to the policy rule calculations. Establishing whether and where this is the case is beyond the scope of this exercise.

3.2 Input & assumptions

We now explain in more detail the assumptions of the simulations.

3.2.1 Household types and income cases

The validation is based on the five household types included in the CSB-MIPI dataset. Case A is a single person, Case B is a couple (male and female), Case C is a couple with two children. The children are 7 and 14 years old. Case D is a lone parent with two children, also aged 7 and 14 years. Case E is a lone parent with one child, aged 2 years. In HHoT the gender of the lone parent is specified as female; this is important because in EUROMOD policies are coded according to the actual country policy rules, so if lone fathers are not eligible to some benefit, this will not be simulated. In CSB-MIPI and the OECD tax-benefit calculator gender is not specified. We assume all adults to be 35 years old.

For these households, five income cases are simulated. Case 1 is a two-earner family, both adults working full time, and earning the (national) average wage.⁴ CSB-MIPI is based on gender-specific average wages, and we included exactly the same wage values in HHoT and the OECD tax-benefit calculator. Case 2 refers to a one-earner family. One adult is working full time; earnings are equal to the national average male wage. The second adult is inactive. The third income case is a one-earner family, with one adult working full time, earning the national minimum wage. If a minimum wage does not exist in a country, an approximation of the wage floor in this country is used (e.g. a sectoral minimum wage for a blue-collar worker in a low-paid sector). The second adult is assumed to be inactive. Employees are assumed to work full time (40 hours a week). As in CSB-MIPI, working lone parents are assumed to earn the male average wage. Case 4 refers to a household without earnings. In most countries this household will be entitled to social assistance and, depending on the country, the housing assumption and the family composition, additional benefits. All hypothetical household members are assumed to be in good health (and are not on maternity leave, sick leave, etc.). Table 3.1

³ See <https://www.euromod.ac.uk/using-euromod/country-reports/>

⁴ Gross average wages for 2012 were taken from CSB-MIPI. National experts were asked to use data referring to January 2012, or the most recent data, updated to January 2012 using Eurostat Harmonized Indices of Consumer Prices (HICP's).

summarises the income cases and hypothetical household types used in the validation exercise. In this paper we show the results for a selection of these income cases and family types.

Table 3.1 Income cases and family types

		Case A	Case B	Case C	Case D	Case E
		Single	Couple	Couple with 2 children (7 and 14 years)	Lone parent with 2 children (7 and 14 years)	Lone parent with 1 child (2 years)
Case 1	Two-earner family, both adults working full time, average male earnings + average female earnings		X	X*		
Case 2	One-earner average male wage. The spouse (in two-adult families) stays consciously at home.	X*	X	X*	X*	X
Case 3	One-earner family, one adult working full time, minimum wage	X*	X*	X	X*	X*
Case 4	Family receiving social assistance for working age persons	X*	X	X	X	X

* Indicates the cases we use in this paper.

3.2.2 Housing costs

As in CSB-MIPI, we assume all hypothetical households to rent their dwelling. This validation exercise therefore excludes simulations of the net disposable income of owners, although in some countries home ownership is very common or even the predominant tenure status.

We use two different housing cost assumptions, both based on CSB-MIPI. The first assumption (A) refers to 2/3rd of the national median rent. Under the second housing assumption (B) rent levels are assumed to be equal to the national median rent. Median rent is in both cases estimated with EU-SILC.⁵ For more country-specific assumptions, we refer to CSB-MIPI documentation (in particular Van Mechelen *et al.*, 2011). The average wages and rent levels were inputted in the OECD tool and HHoT. Hence, the assumed cost of housing is exactly the same in the three models.

3.2.3 Gross wage

In CSB-MIPI the gross yearly minimum wage, as well as both the female and male wage, include the gross yearly income, holiday allowances and a 13th and 14th month where these apply. For the purpose of this validation exercise, the wages from CSB-MIPI⁶ were included as reference tables in HHoT and the OECD tax-benefit tool. To include the monthly gross wage in HHoT, we divided the yearly MIPI amount by 12.

5 See Table a1.4 and Table a1.5 in appendix 1. Estimates based on EU-SILC 2009, excluding other housing costs, excluding households with zero rents. Amounts have been adjusted to 2012 prices using Eurostat HICP's for housing (actual rentals only). National experts were asked to select the type of rental cost they deemed most appropriate for their country (private or social rented) (see Van Mechelen *et al.*, 2011).

6 See Table a1.3 in appendix. For more information on the CSB-MIPI gross wages see Van Mechelen *et al.* (2011).

3.2.4 Taxes

Taxes include all income taxes and regional taxes. In CSB-MIPI the total tax is the sum of 'income tax' and 'local tax'. This income component also accounts for several tax credits or allowances and deductions for children and child care services. In the OECD tax-benefit calculator and in EUROMOD standard tax reliefs are included when calculating tax payments. These are reliefs unrelated to actual expenditures incurred by the taxpayer and are automatically available to taxpayers who satisfy the eligibility rules specified in legislation.⁷ In HHoT taxes refers to the income list *ils_tax*.⁸ This income list includes income taxes, and, depending on what exists and is simulated in EUROMOD, also local or regional taxes. Tax allowances/deductions for child care services are not included due to lack of information in the SILC. In the OECD tax-benefit calculator, central, state and local government income taxes are included (Council tax in the United Kingdom is excluded). It is worth mentioning that, insofar local taxes are simulated, the three models do not necessarily refer to the same municipality. To summarise, there are some tax concessions (or taxes themselves) that are missing from each of the sets of data/models, while being present in one or more of the others.

3.2.5 Social security contributions

Social security contributions are separated from other income components in all three data sources. For most countries the categorization of social security contributions is straightforward. However, there are exceptions. For example, social security contributions in Denmark are partly categorized as taxes in the OECD database. This is important to keep in mind when comparing the level of social security contributions between the three databases. In general, social security contributions do not include private contributions, however, exceptions are possible when the contributions are mandatory.

3.2.6 Social assistance and housing allowances

Both the CSB-MIPI database and the OECD model distinguish several variables related to social assistance benefits. In CSB-MIPI we can distinguish between the basic social assistance benefit and the social assistance benefit for housing. CSB-MIPI also has separate variables for housing allowances and for heating allowances. The OECD model distinguishes between social assistance payments and housing benefits. To compose a comparable income component for HHoT we have added up all social assistance benefits and housing benefits, following the EUROMOD classification. The income components are composed in STATA, and are based on the EUROMOD variables for social assistance and housing.⁹ Nevertheless, the categorization of social assistance benefits and housing allowances still is not fully harmonised between the data sources (see the section below on *Social assistance & housing allowances for able-bodied persons at active age*).

3.2.7 Family benefits/child benefits

In all three data sources, family benefits or child benefits include both means-tested and non-means-tested child benefits. This income component also includes lone parent benefits. Only the categorization of child tax credits (in taxes or in family benefits) varies between countries and data sources.¹⁰

7 OECD, <http://www.oecd.org/els/soc/benefits-and-wages.htm>

8 More generally, in these comparisons EUROMOD standard income lists have been used to define income categories. For child benefits, social assistance and housing allowances income components are composed in STATA, based on country-specific variables. These income components were redefined to maximise consistency with CSB-MIPI and/or OECD concepts.

9 For social assistance and housing allowances we used the variables *bsa_s* and *bho_s* respectively. Based on the EUROMOD country reports additional country-specific variables or assumptions were added.

10 Cf. OECD, <http://www.oecd.org/els/soc/disclaimersfortax-benefitpensionandfamilysupportcalculators.htm>

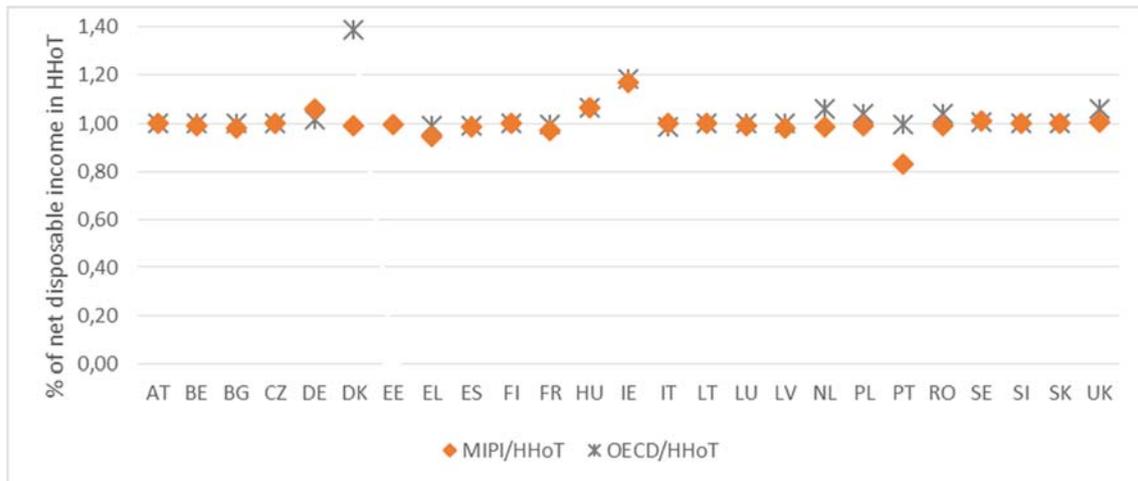
3.3 Results

We present the results of this validation exercise in two steps. First we compare the net disposable incomes as produced by HHoT, the OECD tax-benefit calculator and CSB-MIPI. Second, we discuss each income component individually. Net income includes all taxes and benefits a household or an individual is liable to pay or is entitled to receive.

3.3.1 Net disposable income

The net disposable income is the household income after the calculation of taxes and benefits. The figures below show the net disposable income for a selection of family types. The most straightforward case is the net disposable income of a single earner, working 40 hours per week, earning an average wage. All simulations are based on housing assumption **B** (median rent). The results as produced by using HHoT appear to be very similar to those as obtained with CSB-MIPI and the OECD tax-benefit model. Nonetheless, HHoT seems to estimate lower net disposable income for a single person on an average wage than the other data sources in Hungary. In Ireland net income is also lower in HHoT due to the inclusion of the superannuation scheme. The contribution to the superannuation scheme increases the social contributions in EUROMOD, as a result the net income in Ireland is lower. In Denmark net income is higher in the OECD tax-benefit calculator because of higher taxes and social contributions. (Detailed tables for a selection of family types, can be found in the Annex.)

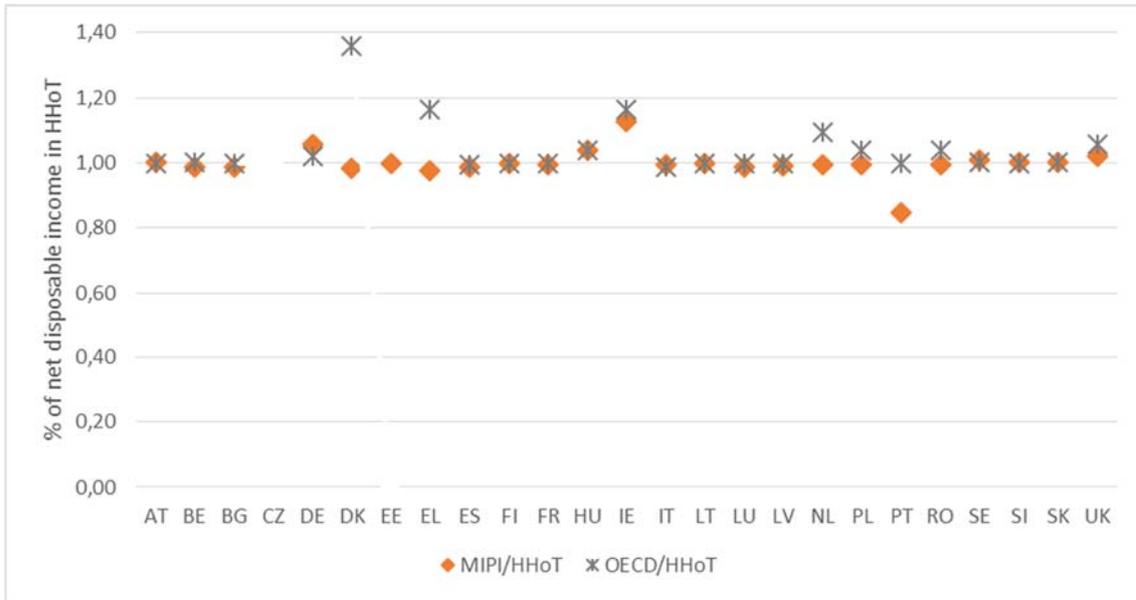
Figure 3.1 Disposable income for a single (male) earner, working full time and earning an average male wage, 2012



* No data for Estonia with OECD tax-benefit calculator.

Source Own calculations using EUROMOD with HHoT, CSB-MIPI and OECD tax-benefit calculator

Figure 3.2 Disposable income for a two earner family with 2 children, working full time and earning an average (male and female) wage, 2012

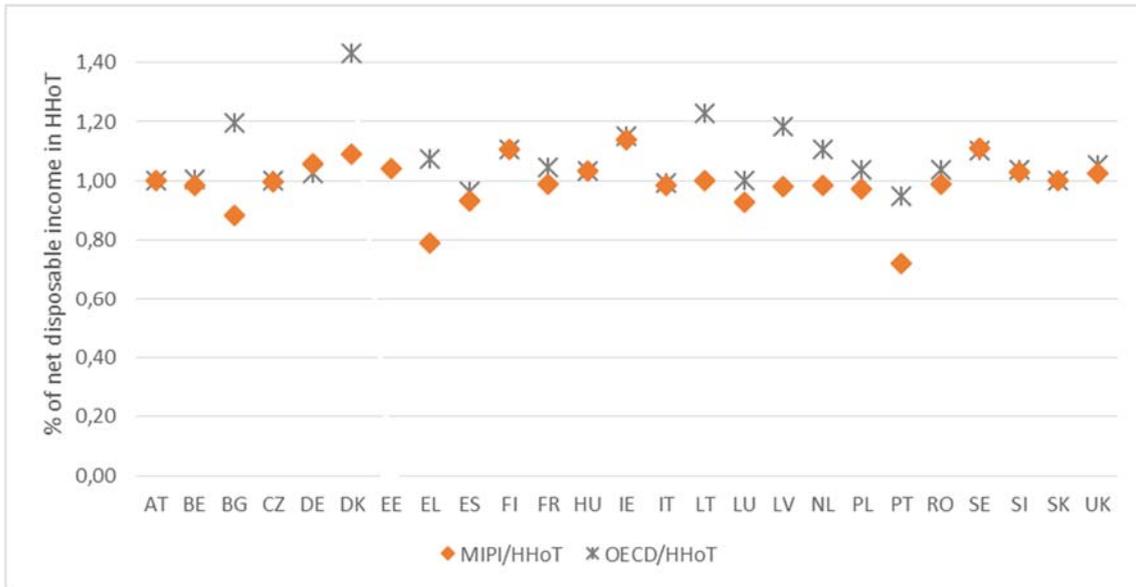


* No data for Estonia OECD tax-benefit calculator.

Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator.

The simulation of the net disposable income of a hypothetical household with two children and two average wage earners also shows few differences between the data sources (see Figure 3.1). There are some discrepancies between HHoT and the OECD model for Denmark, Greece, and Ireland. In all three countries the estimate is higher according the OECD tax-benefit calculator as compared to the other data sources. For Denmark and Ireland the difference is due to the level of social contributions and taxes (see below), while for Greece the OECD model produces a relatively high estimate of the level of child benefits due to the inclusion of a wage-top up that applies to low earners. In CSB-MIPI the estimate for Greece includes a child benefit (the civil servants' family allowance) which is relatively low compared to the OECD estimate. In EUROMOD the wage top-up is included as part of employment income (as in the SILC) and the two earners are assumed to be working in the private sector.

Figure 3.3 Disposable income for a lone parent with 2 children, working full time and earning an average (male) wage, 2012.



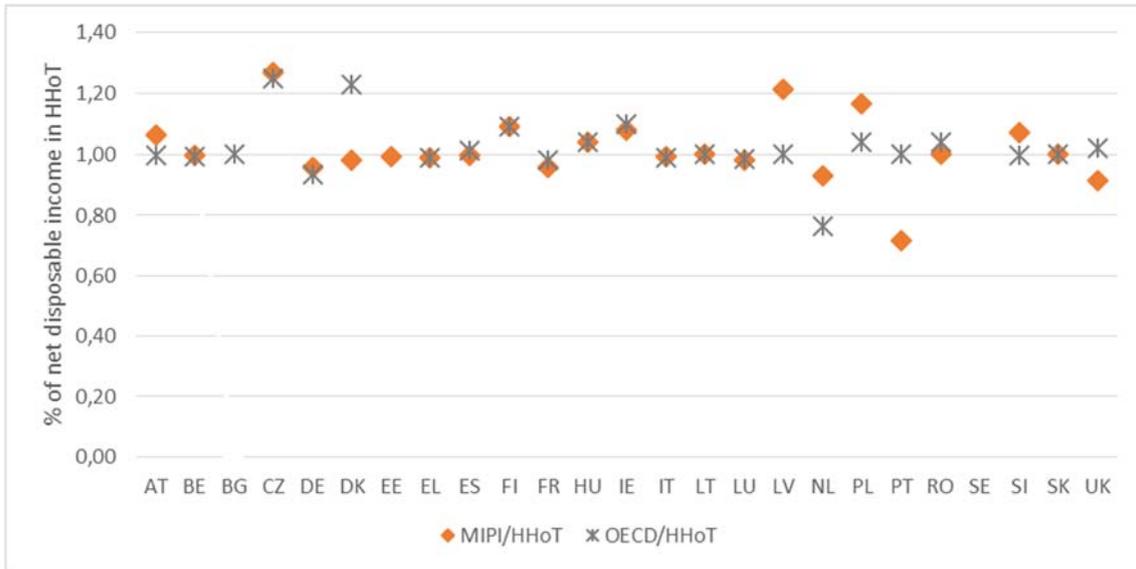
* No data for Estonia OECD tax-benefit calculator.

Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

The data sources differ in the way support for lone parents is simulated. The OECD tax benefit simulator tends to produce more generous child benefit packages for lone parents as compared to both other sources, but especially as compared to HHoT, (partly because alimony is included in the OECD calculations). This seems to be especially the case of child benefits for Sweden and Finland. Discrepancies for other countries are due to differences in the calculation of social contributions and taxes among the three sources of information (see also Figure 3.7 below).¹¹

¹¹ For example, in Greece differences are not only due to child benefits, also social contributions and taxes differ significantly, see Figure 3.7.

Figure 3.4 Disposable income for a single (male) earner, working full time and earning a minimum wage, 2012



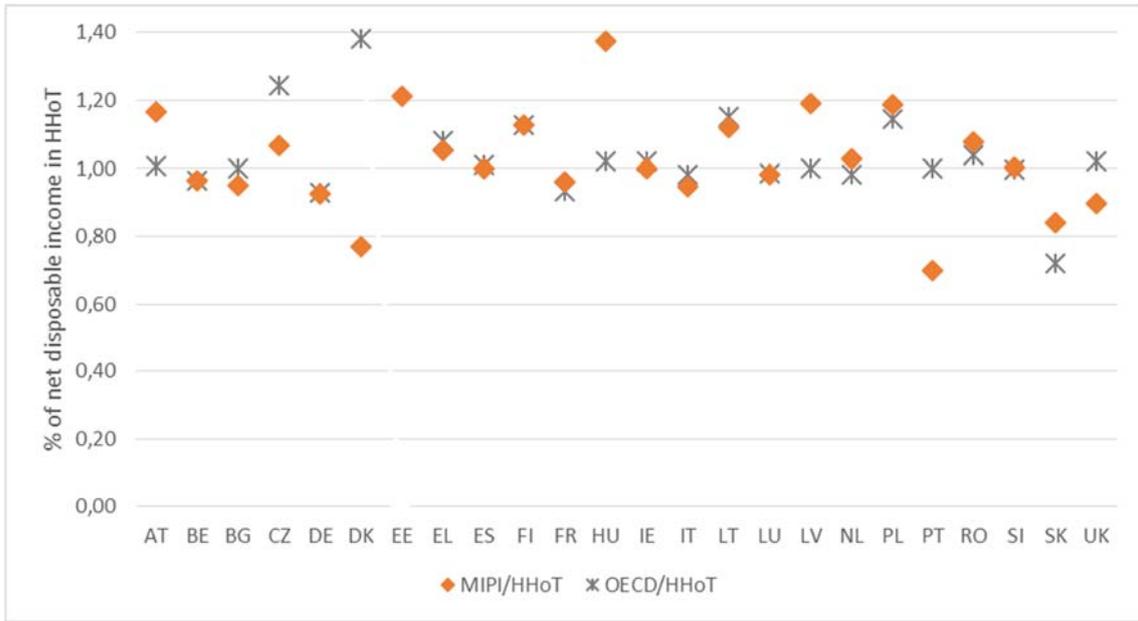
* No minimum wage in Sweden. No data available for Bulgaria in CSB-MIPI. No data for Estonia OECD tax-benefit calculator.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

The results for similar households, earning a minimum wage, are a bit more problematic. However, it is not difficult to explain the differences between data sources. Figure 3.4 and Figure 3.7 show the results for a single person household. For the Czech Republic the relatively low estimate of the net disposable income in HHoT is largely due to the level of the (simulated) housing allowance. Also in Latvia and Poland differences between data sources are due to the estimated level of housing allowances. For the latter two countries, housing allowances are not calculated in the OECD tax-benefit calculator and HHoT due to a lack of information on additional assumptions that were made in CSB-MIPI and which are essential for eligibility to these allowances. In Denmark, the higher disposable income according to the OECD model as compared to HHoT and CSB-MIPI is due to lower estimate of taxes and social contributions in the OECD tax-benefit calculator.

Figure 3.5 and Figure 3.6 show the results for hypothetical households including children or a partner. The differences between data sources increase when we focus on one-earner couples on a minimum wage rather than a single-person household. This is probably due to differences in the simulation of the policies aimed at the inactive partner, particularly reductions in taxes and/or social contributions.

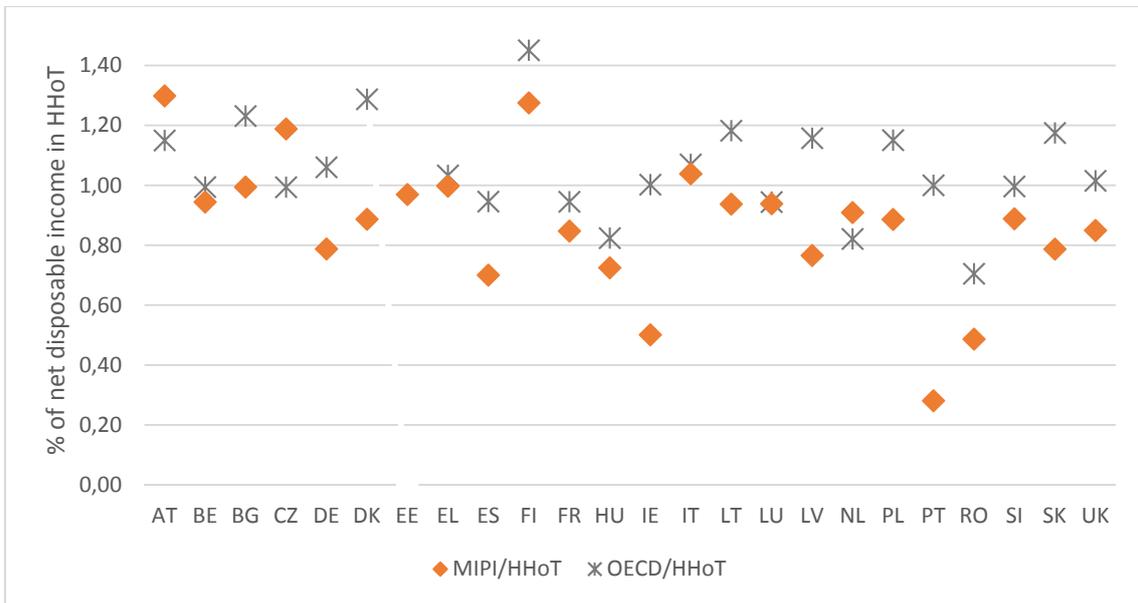
Finally, the lone parent working on a minimum wage accumulates many of the differences described above. Most of them will be discussed more in detail below.

Figure 3.5 Disposable income for a couple with one (male) earner, working full time and earning a minimum wage, 2012



* No minimum wage in Sweden. No data for Estonia OECD tax-benefit calculator.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

Figure 3.6 Disposable income for a lone parent with 1 child, working full time and earning a minimum wage, 2012

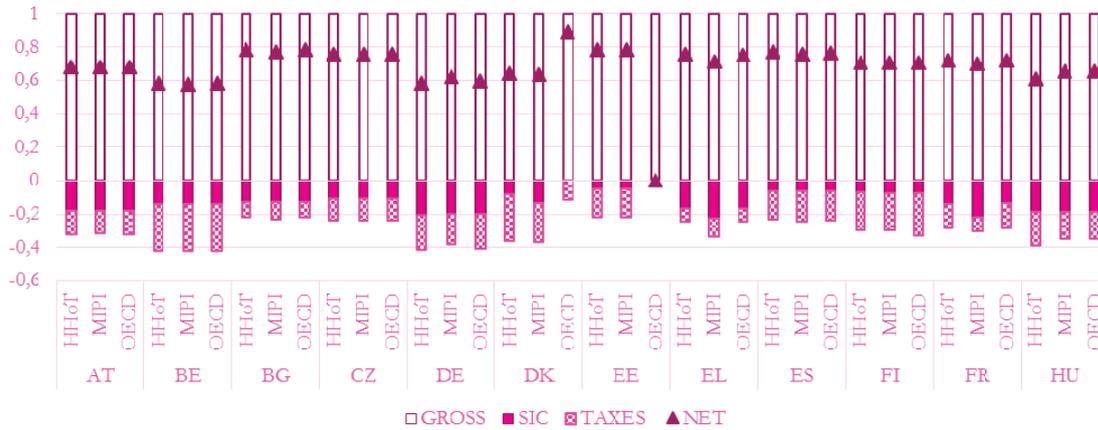


* No minimum wage in Sweden. No data for Estonia OECD tax-benefit calculator.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

3.3.2 Taxes and social contributions

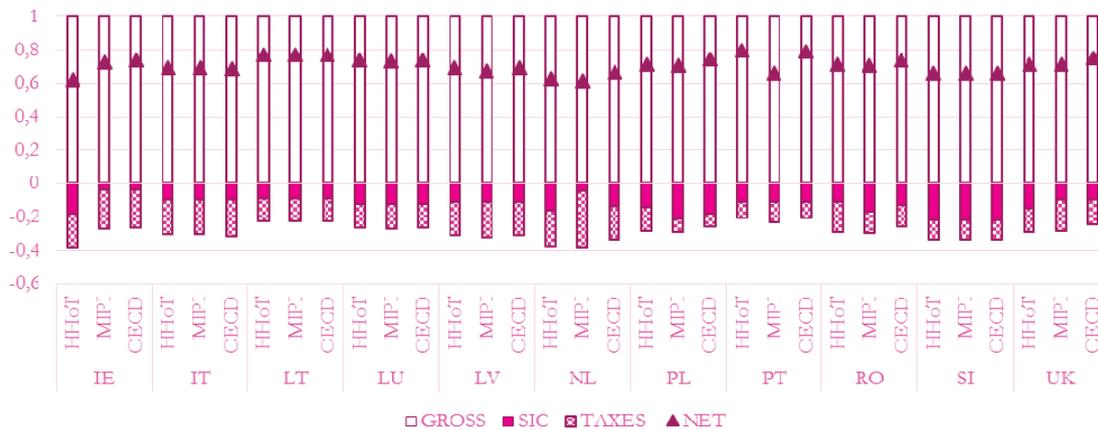
To detect differences in the categorization of income components we now look in more detail at individual income components. The figures below show the social contributions, the taxes and the net disposable income as a percentage of gross income across the three data sources.

Figure 3.7 Disposable income for a single (male), working full time and earning an average (male) wage as a percentage of gross income, 2012 – Panel A



* SIC = social insurance contributions. No data for Estonia OECD tax-benefit calculator.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

Figure 3.8 Disposable income for a single (male), working full time and earning an average (male) wage, 2012 – Panel B



Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

Consistent with the results presented above, net wages in Figures 3.6 and 3.7 are very similar across CSB-MIPI, the OECD calculator and HHoT. For most countries the proportion of taxes and social contributions is also very comparable across the three data sources.

The income tax in Hungary is higher in HHoT as compared to CSB-MIPI and the OECD. This is due to tax reliefs or tax credits that are not included in EUROMOD. For Hungary some tax credits are not simulated in EUROMOD due to lack of information in EU-SILC. The OECD calculator generates a relatively high net disposable income for a single person on average wage in Denmark due the fact that social contributions are not simulated and the estimate of taxes is relatively low. Social contributions in Denmark are financed through either the tax system, or through fully privately organized schemes. The differences between the data sources can be explained by either differences in the composition of the income components or the choice of what is included in the models (compulsory or non-compulsory contribution). Classification differences clearly explain the discrepancies in the results for France. In EUROMOD part of social contribution is included in taxes. For Greece results in HHoT and the OECD look very similar, while in CSB-MIPI both taxes and social contributions are higher.

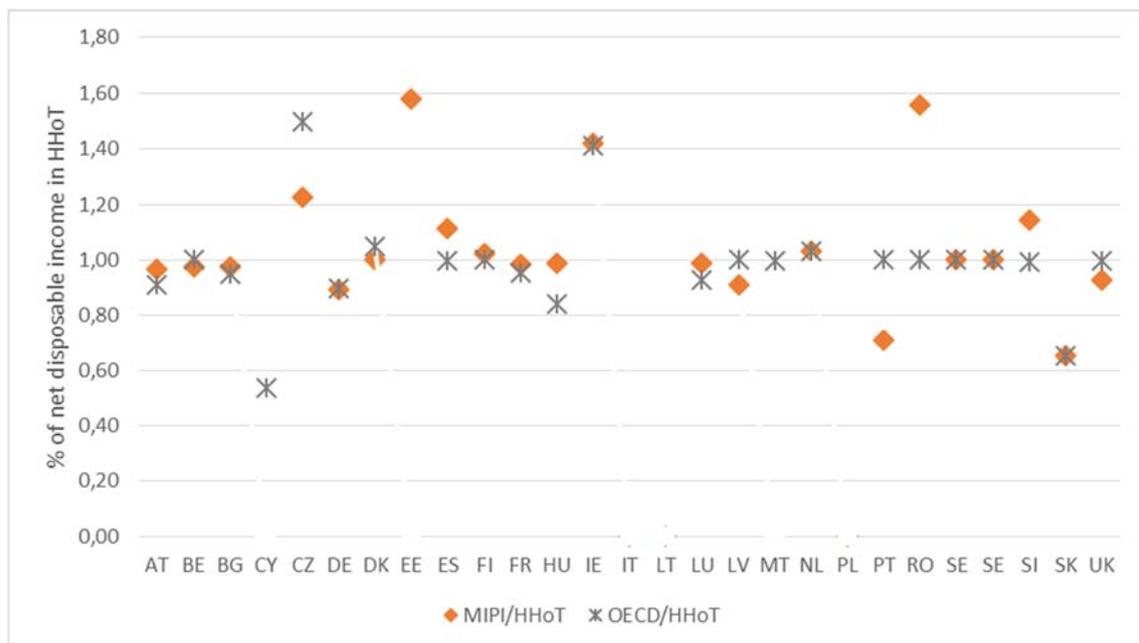
For Ireland values from HHoT vary from values in CSB-MIPI and the OECD calculator. Simulations based on HHoT include the simulation of the superannuation scheme in social insurance contributions. This increases the simulated social contributions in Ireland. For the Netherlands the net incomes in the three databases are close but there is a clear categorization difference for social contributions and taxes. The social contributions in Portugal are identical in the three data sources but taxes in CSB-MIPI are much higher. This can partly be explained by the local tax included in CSB-MIPI.

The differences increase if we repeat the above simulations for households on a minimum wage. This makes sense since the effect of tax credits and tax advantages has more weight for a minimum wage earner.

3.3.3 Social assistance & housing allowances for able-bodied persons at active age

The social assistance case is the least straightforward case to compare across data sources. The main reason is that social assistance payments and related cash benefits (e.g. housing allowances or heating allowances) are classified rather differently in the three databases. Moreover, the three data sources also differ in the extent to which benefits that often accompany social assistance benefits are included. Figure 3.9 shows the net disposable income of a single person household with no earnings or other private income sources. In most countries this household receives a social assistance benefit and a housing benefit. The subsequent figures focus on each income component separately.

Figure 3.9 Disposable income for an inactive single (male), 2012



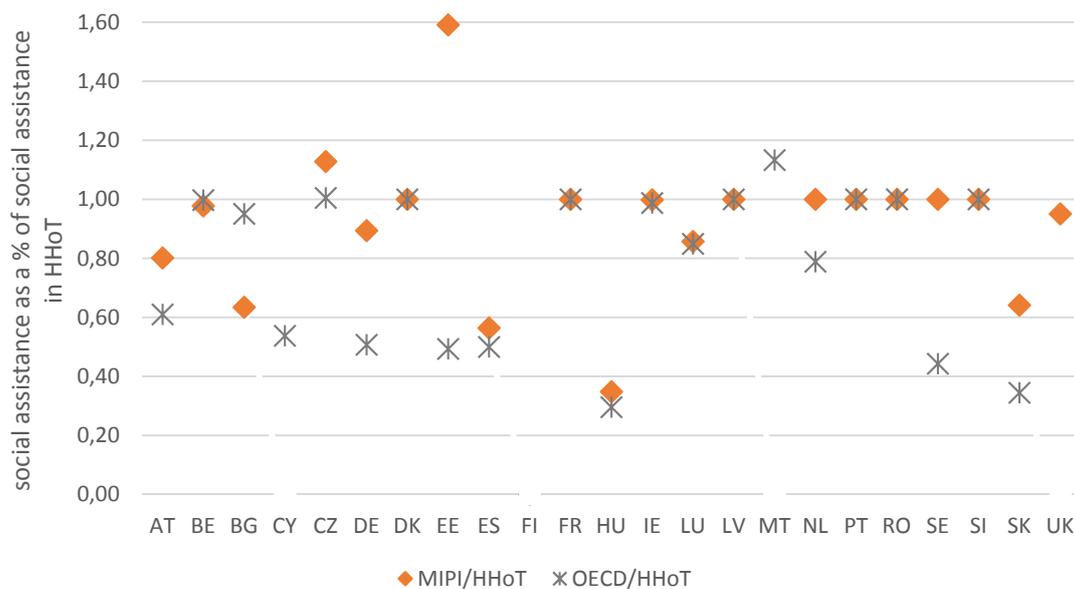
* No data for Cyprus and Malta in CSB-MIPI. No social assistance simulated for Italy in the OECD tax-benefit calculator and EUROMOD. In CSB-MIPI regional social assistance (Milan) is simulated for Italy.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

HHoT produces no results for the social assistance case for four countries. Greece and Italy are missing because both countries lack a nationwide social assistance scheme. In Italy, there are a number of regional schemes in place, but not in every part of the country. In Lithuania, people are not receiving social assistance because they don't fulfil the (legislated) eligibility criteria. To simulate social assistance in EUROMOD, the variable in HHoT on months in unemployment should be positive.

In Poland, local authorities use their discretionary power to decide who is eligible for social assistance. Even though the Polish social assistance scheme is simulated in EUROMOD, standard CSB-MIPI assumptions do not imply social assistance eligibility in EUROMOD. In other countries, such as Spain, the default region specified in HHoT has been used in the calculations.

Figure 3.10 focuses on the social assistance payment, or at least on the income components that are classified as social assistance in each database.¹² For many countries the level of social assistance payments is exactly the same in the three databases. For other countries, the data sources differ substantially in the number of benefits that are classified under social assistance.

Figure 3.10 Social assistance for an inactive single (male), 2012



* No data for Cyprus and Malta in CSB-MIPI. Classification differences for Finland and the UK.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

The benefits that are included in the social assistance benefit package are most explicitly spelled out in the CSB-MIPI dataset. It contains separate standardised variables for social assistance payments, housing allowances and heating allowances. In the OECD calculator heating allowances are for some countries included in the income component for housing allowances, while for other countries the heating allowance is not included in the simulation. It is not always clear which additional assumptions were made to simulate housing and heating allowances.¹³ Information on the simulated social assistance benefits, housing and heating allowances in EUROMOD can be found in the EUROMOD Country Reports. Note that some housing allowances and heating allowances are not simulated in EUROMOD.¹⁴ This is due to the fact that the model is designed to run on EU-SILC data, which lack essential information to simulate some of these benefits.

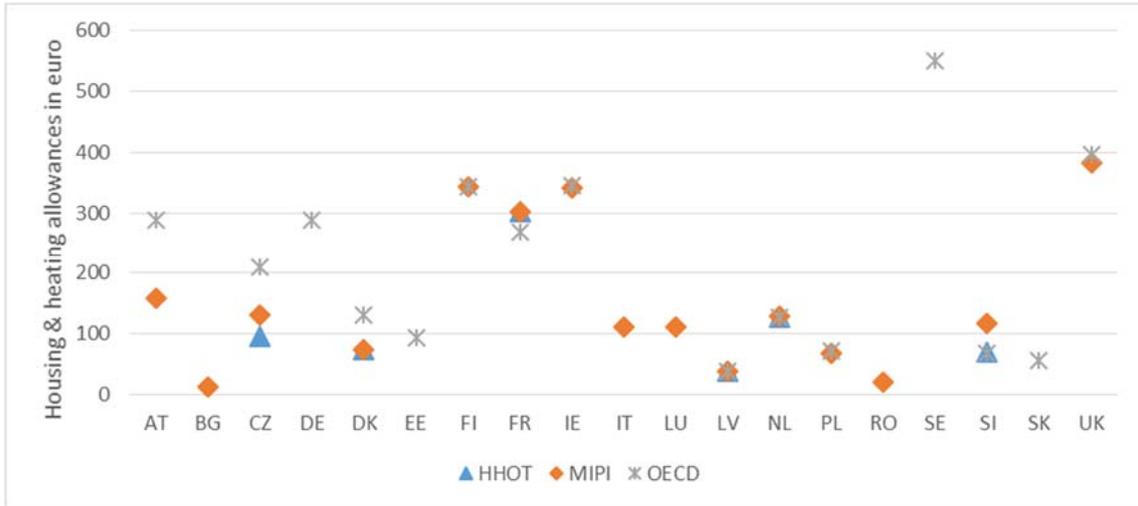
Figure 3.11 shows the housing and heating allowances in euro per month. The results shown in this graph are influenced by the differences in categorization, differences in details of the assumptions and differences in income components included. The variation between sources is due to differences in assumptions and in the benefits included in the simulations.

¹² For EUROMOD the income component social assistance is based on the variable bsa_s and additional country-specific variables based on information in the EUROMOD country reports.

¹³ For some hypothetical households or income cases national experts had to make additional assumptions to simulate housing and heating allowances for CSB-MIPI.

¹⁴ For EUROMOD the income component housing is based on the variable bho_s and additional country-specific variables based on information in the EUROMOD country reports.

Figure 3.11 Housing and heating allowances for an inactive single (male), 2012

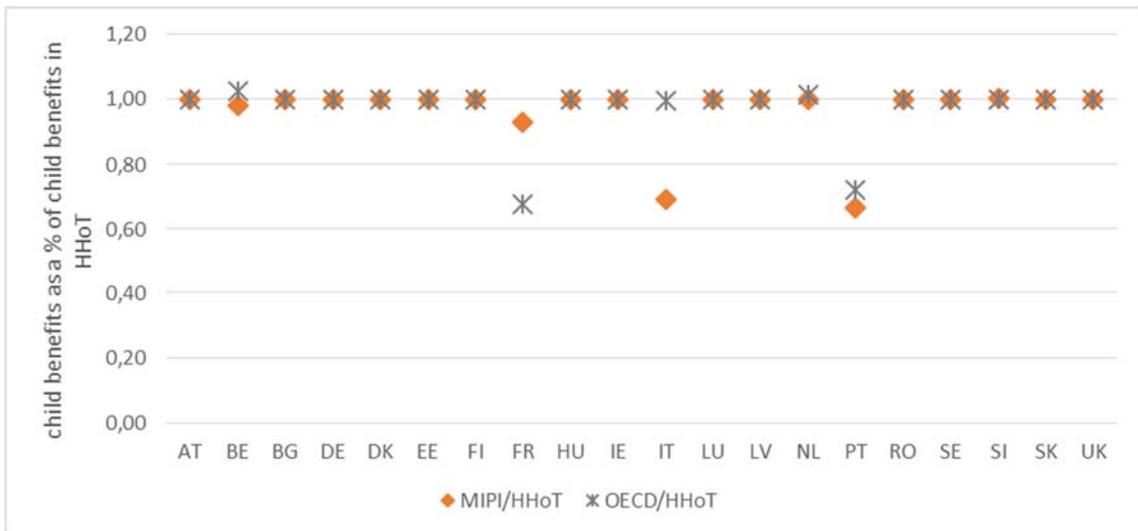


* Heating allowances are not (separately) included in EUROMOD or the OECD tax-benefit calculator.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

3.3.4 Family benefits

Family benefits or child benefits are similar or equal across databases for most countries. Small differences, e.g. in Belgium, are due to differences in the reference moment (January for CSB-MIPI, 30 June for EUROMOD/HHoT, 1 July for OECD tax-benefit calculator). Bigger differences, e.g. in France, are probably due to the fact that the family benefit package is made up of a diversity of benefits and that the three data sources differ in the benefits that are included. For the case of Portugal it seems that the Supplement for Education is only taken into account in HHoT, and not in the two other databases.

Figure 3.12 Child benefits for a couple with two children and one (male) earner, working full time and earning an average (male) wage, 2012



* No data for Cyprus and Malta in CSB-MIPI.
 Source Own calculations using EUROMOD with HHoT, MIPI and OECD tax-benefit calculator

4. Conclusions

With the creation of HHoT, EUROMOD includes now a very flexible tax-benefit hypothetical household tool. The tool is unique in that it is very flexible, yet user-friendly, and allows for comparable microsimulations and hypothetical household simulations in an integrated framework. Given that EUROMOD covers all EU Member States, for an increasing number of policy years, the tool has much potential for contributing substantially to (comparative) policy evaluations in the future. In addition, EUROMOD is supported by a network of country teams, responsible for regular updating and validating the simulation model. In this paper, we set out to offer a first illustration of the potential of HHoT, and provide a first comparison of the output of HHoT and EUROMOD with two other established data sources for hypothetical household simulations, namely the OECD tax-benefit calculator and CSB-MIPI.

A comparison of the output of the three databases proved more challenging than we anticipated. This is mainly because of structural differences between the three sources, especially with regard to setting default values for specific variables. These values are necessary for simulating taxes and benefits, but cannot be easily manipulated by the user without in-depth knowledge of all relevant tax-benefit policy rules. The flexibility of HHoT allows the user to change all default values. The OECD tax-benefit calculator, and especially CSB-MIPI, are much less flexible, making it more difficult to identify and manipulate additional assumptions for the hypothetical household simulations. In addition, the comparisons proved difficult because income components are classified differently between the three data sources. For a precise comparison, each income component should be classified in exactly the same way. An accessible, but detailed, documentation of income lists with information on how all relevant tax-benefit policies were classified (and which ones were not included), would further enhance the transparency of this exercise. Finally, ensuring that all relevant assumptions are exactly the same across the three data sources is a tedious work. Therefore, we would like to stress that users of HHoT should be careful with jumping too quickly to conclusions if results between the three data sources differ. In any case, even though it may be tempting to quickly generate and compare simulation results across countries and years, we would like to stress that (relatively detailed) knowledge of tax-benefit policies remains an important requirement for high-quality comparative research.

In order to assess whether different outputs were also driven by other factors, notably differences in the underlying models, we have made an in-depth comparison of the output for a limited set of hypothetical households, for 2012. When doing so, we have done our utmost best to align the underlying assumptions as much as possible between the three data sources. Some differences still remained, for instance with regard to the exact reference date of the simulated legislation. The analysis shows that especially with regard to disposable household income, the differences between the three data sources are in most cases rather limited. In contrast, differences are more obvious when looking at individual income components. In many cases, this is due to a different classification of income components across the three data sources. Reconstructing the income components in the three databases would improve their comparability.

In some cases there appear to be differences in modelled values between the data sources, and especially in the extent to which all policies are simulated in all three models. Typically, when the relevant microdata are not available, EUROMOD does not simulate (parts of) policies. This is, for instance, the case for some housing and heating allowances. In any case, this exercise shows that a detailed comparison of the three data sources is not straightforward and that further validation is

required. Even though all three models underwent substantial validation separately, the comparison sometimes reveals that further improvements can be made. With HHoT, EUROMOD country teams will have a new tool that allows them to easily validate, and check for errors in, the simulated policies. For instance, when coding child benefits, one could easily simulate child benefit packages for different household types to check whether policies have been coded as intended. In addition, it is worth indicating that the introduction of HHoT offers a new rationale for enriching EUROMOD by extending it with policies or parts of policies that are currently not simulated due to a lack of available information in EU-SILC. Relevant extensions include, for instance, housing and heating allowances, entitlements based on an earnings history or contribution record, or local policy variations.

As this paper shows, a beta version of HHoT is now operational. The tool will be released in January 2017, as part of the new version of EUROMOD. By then, HHoT can be used for policies of any year between 2009 and 2016. In the meantime, validation will be continued. In addition, we are working on a set of hypothetical households that will be provided to the user, and are comparable between HHoT and the OECD tax-benefit calculator. We are strongly convinced that the introduction of HHoT will benefit researchers and policy analysts interested in ex ante and ex post policy evaluations. It is our hope that the users of HHoT will quickly find out how the combined use of hypothetical household simulations and microsimulations will enrich their analysis.

appendix 1

Table a1.1 Income components for a single (male), 2012. (Income case 2, 3 & 4, Housing assumption B)

Country	Income case	Income component	HHoT	MIPI	OECD
AT	1-earner average wage	Gross wage income	3006.3	3006.3	3006.3
AT	1-earner average wage	Net disposable income	2045.94	2046.957	2044.453
AT	1-earner average wage	Social insurance contributions	-540.45	-538.943	-542.852
AT	1-earner average wage	Total tax	-419.91	-420.4	-418.996
AT	1-earner minimum wage	Gross wage income	1166.67	1166.667	1166.667
AT	1-earner minimum wage	Housing allowance		62.74	
AT	1-earner minimum wage	Net disposable income	1001.1	1064.423	1000.167
AT	1-earner minimum wage	Social insurance contributions	-174.73	-174.15	-175.667
AT	1-earner minimum wage	Total tax		9.166667	
AT	social assistance case	Heating allowance		8.333333	
AT	social assistance case	Housing allowance		149.68	289
AT	social assistance case	Net disposable income	964.62	931.2734	877.2708
AT	social assistance case	Total social assistance benefit	964.62	773.26	588.2708
BE	1-earner average wage	Gross wage income	3562.97	3562.975	3562.975
BE	1-earner average wage	Net disposable income	2073.23	2054.864	2075.073
BE	1-earner average wage	Social insurance contributions	-498.41	-496.76	-498.407
BE	1-earner average wage	Total social assistance benefit	13969.14		
BE	1-earner average wage	Total tax	-991.34	-1011.35	-989.496
BE	1-earner minimum wage	Gross wage income	1604.94	1604.944	1604.944
BE	1-earner minimum wage	Net disposable income	1274.83	1270.635	1266.297
BE	1-earner minimum wage	Social insurance contributions	-69.7	-33.9958	-70.4603
BE	1-earner minimum wage	Total social assistance benefit	7581.93		
BE	1-earner minimum wage	Total tax	-260.41	-300.313	-268.187
BE	social assistance case	Net disposable income	785.61	765.1967	785.61
BE	social assistance case	Total social assistance benefit	787.61	770.18	785.61
BE	social assistance case	Total tax		-4.98333	
BG	1-earner average wage	Gross wage income	773.04	773.0398	773.0398
BG	1-earner average wage	Net disposable income	605.99	595.1375	605.9859
BG	1-earner average wage	Social insurance contributions	-99.72	-99.7221	-99.7221
BG	1-earner average wage	Total tax	-67.33	-78.1801	-67.3318
BG	1-earner minimum wage	Gross wage income	286.2	286.2	286.2
BG	1-earner minimum wage	Net disposable income	224.35	213.5038	224.3522
BG	1-earner minimum wage	Social insurance contributions	-36.92	-36.9198	-36.9198
BG	1-earner minimum wage	Total tax	-24.93	-35.7764	-24.928
BG	social assistance case	Heating allowance		25.43333	
BG	social assistance case	Net disposable income	74.83	72.88333	71.14167
BG	social assistance case	Total social assistance benefit	74.83	47.45	71.14167
CZ	1-earner average wage	Gross wage income	28825	28825	28825
CZ	1-earner average wage	Net disposable income	21930.42	21913.75	21930.42
CZ	1-earner average wage	Social insurance contributions	-3170.75	-3170.75	-3170.75

Country	Income case	Income component	HHoT	MIPI	OECD
CZ	1-earner average wage	Total tax	-3723.83	-3740.5	-3723.83
CZ	1-earner minimum wage	Gross wage income	8000	8000	8000
CZ	1-earner minimum wage	Housing allowance	1150.54	3383	3216
CZ	1-earner minimum wage	Net disposable income	8270.54	10486.33	10336
CZ	1-earner minimum wage	Social insurance contributions	-880	-880	-880
CZ	1-earner minimum wage	Total tax		-16.6667	
CZ	social assistance case	Housing allowance	2449.04	3356	5352
CZ	social assistance case	Net disposable income	5842.54	7167.333	8762
CZ	social assistance case	Total social assistance benefit	3393.5	3828	3410
CZ	social assistance case	Total tax		-16.6667	
DE	1-earner average wage	Gross wage income	4046.75	4046.753	4046.753
DE	1-earner average wage	Net disposable income	2362.79	2509.625	2403.075
DE	1-earner average wage	Social insurance contributions	-818.34	-817.789	-817.789
DE	1-earner average wage	Total tax	-865.62	-719.339	-825.889
DE	1-earner minimum wage	Gross wage income	1299	1299	1299
DE	1-earner minimum wage	Net disposable income	1037	992.6229	969.0323
DE	1-earner minimum wage	Social insurance contributions	-269.22	-269.218	-269.218
DE	1-earner minimum wage	Total social assistance benefit	98.53		
DE	1-earner minimum wage	Total tax	-91.32	-37.1594	-60.75
DE	social assistance case	Housing allowance			289
DE	social assistance case	Net disposable income	737	659	663
DE	social assistance case	Total social assistance benefit	737	659	374
DK	1-earner average wage	Gross wage income	32491.33	32491.33	32491.33
DK	1-earner average wage	Net disposable income	20754.84	20557.81	28783.43
DK	1-earner average wage	Social insurance contributions	-2689.31	-4359.25	
DK	1-earner average wage	Total tax	-9155.52	-7574.28	-3707.91
DK	1-earner minimum wage	Gross wage income	16068.74	16068.75	16068.74
DK	1-earner minimum wage	Housing allowance	551.1	551	
DK	1-earner minimum wage	Net disposable income	11684.45	11488.62	14375.69
DK	1-earner minimum wage	Social insurance contributions	-1375.5	-2020.59	
DK	1-earner minimum wage	Total tax	-3668.22	-3110.54	-1693.05
DK	social assistance case	Housing allowance	551.1	551	974
DK	social assistance case	Net disposable income	8470.25	8470.149	8896.259
DK	social assistance case	Social insurance contributions		-473.2	
DK	social assistance case	Total social assistance benefit	10335	10335	10335
DK	social assistance case	Total tax	-2524.18	-1942.65	-2412.74
EE	1-earner average wage	Gross wage income	956.85	956.8469	956.8467
EE	1-earner average wage	Net disposable income	749.87	748.19	
EE	1-earner average wage	Social insurance contributions	-45.93	-45.9287	
EE	1-earner average wage	Total tax	-161.05	-162.728	
EE	1-earner minimum wage	Gross wage income	290	290	289.9999
EE	1-earner minimum wage	Net disposable income	248.34	246.6678	
EE	1-earner minimum wage	Social insurance contributions	-13.92	-13.92	
EE	1-earner minimum wage	Total tax	-27.74	-29.4122	
EE	social assistance case	Housing allowance			92.93
EE	social assistance case	Net disposable income	155.47	245.7	
EE	social assistance case	Total social assistance benefit	155.47	247.3754	76.7
EE	social assistance case	Total tax		-1.67542	
ES	1-earner average wage	Gross wage income	2327.44	2327.442	2327.442

Country	Income case	Income component	HHoT	MIPI	OECD
ES	1-earner average wage	Net disposable income	1788.86	1765.343	1775.763
ES	1-earner average wage	Social insurance contributions	-147.79	-147.793	-147.793
ES	1-earner average wage	Total tax	-390.79	-414.306	-403.886
ES	1-earner minimum wage	Gross wage income	748.3	748.3	748.3
ES	1-earner minimum wage	Net disposable income	692.87	691.8034	700.7829
ES	1-earner minimum wage	Social insurance contributions	-55.43	-47.5171	-47.5171
ES	1-earner minimum wage	Total tax		-8.9796	
ES	social assistance case	Net disposable income	375.75	418.6156	375.55
ES	social assistance case	Total social assistance benefit	751.5	423.7	375.55
ES	social assistance case	Total tax		-5.0844	
FI	1-earner average wage	Gross wage income	3508	3508	3508
FI	1-earner average wage	Net disposable income	2469.38	2469.079	2469.079
FI	1-earner average wage	Social insurance contributions	-230.48	-267.459	-269.831
FI	1-earner average wage	Total tax	-808.14	-771.463	-879.878
FI	1-earner minimum wage	Gross wage income	1408	1408	1408
FI	1-earner minimum wage	Housing allowance		104.8	104.8
FI	1-earner minimum wage	Net disposable income	1208.37	1317.919	1317.919
FI	1-earner minimum wage	Social insurance contributions	-92.51	-98.6071	-102.838
FI	1-earner minimum wage	Total tax	-107.13	-96.2742	-241.775
FI	social assistance case	Housing allowance		343.2	343.2
FI	social assistance case	Net disposable income	890.05	909.2685	890.05
FI	social assistance case	Social insurance contributions		-7.28483	
FI	social assistance case	Total social assistance benefit			546.85
FI	social assistance case	Total tax		-100.887	
FR	1-earner average wage	Gross wage income	3070	3070	3070
FR	1-earner average wage	Net disposable income	2207.7	2148.64	2198.603
FR	1-earner average wage	Social insurance contributions	-427.01	-664.34	-419.986
FR	1-earner average wage	Total tax	-435.29	-257.02	-451.411
FR	1-earner minimum wage	Gross wage income	1398.37	1398.37	1398.37
FR	1-earner minimum wage	Housing allowance	29.66	46.19	
FR	1-earner minimum wage	Net disposable income	1172.47	1123.293	1148.487
FR	1-earner minimum wage	Social insurance contributions	-194.79	-303.31	-191.577
FR	1-earner minimum wage	Total social assistance benefit	43.31	14.54257	42.97473
FR	1-earner minimum wage	Total tax	-109.97	-32.5	-117.362
FR	social assistance case	Housing allowance	302.86	301.3484	268.09
FR	social assistance case	Net disposable income	732.04	719.1926	697.3938
FR	social assistance case	Total social assistance benefit	430.64	430.6442	430.6442
FR	social assistance case	Total tax	-1.47	-12.8	-1.34045
HU	1-earner average wage	Gross wage income	219240	219240	219240
HU	1-earner average wage	Net disposable income	134131	142857.4	142857.4
HU	1-earner average wage	Social insurance contributions	-40559.4	-40559.4	-40559.4
HU	1-earner average wage	Total tax	-44549.6	-35823.2	-35823.2
HU	1-earner minimum wage	Gross wage income	93000	93000	93000
HU	1-earner minimum wage	Housing allowance			2500
HU	1-earner minimum wage	Net disposable income	60915	63415	63415
HU	1-earner minimum wage	Social insurance contributions	-17205	-17205	-17205
HU	1-earner minimum wage	Total social assistance benefit		2500	
HU	1-earner minimum wage	Total tax	-14880	-14880	-14880
HU	social assistance case	Net disposable income	27125.1	26816.67	22800

Country	Income case	Income component	HHoT	MIPI	OECD
HU	social assistance case	Total social assistance benefit	77050.2	26816.67	22800
IE	1-earner average wage	Gross wage income	3626.94	3626.942	3626.942
IE	1-earner average wage	Net disposable income	2255.55	2640.485	2668.712
IE	1-earner average wage	Social insurance contributions	-651.81	-122.959	-123.064
IE	1-earner average wage	Total tax	-719.59	-863.499	-835.165
IE	1-earner minimum wage	Gross wage income	1385.8	1385.8	1385.8
IE	1-earner minimum wage	Net disposable income	1219.59	1315.067	1343.401
IE	1-earner minimum wage	Social insurance contributions	-125.97		
IE	1-earner minimum wage	Total tax	-40.24	-70.7327	-42.3993
IE	social assistance case	Housing allowance		342.3333	345
IE	social assistance case	Net disposable income	815.92	1157	1151
IE	social assistance case	Total social assistance benefit	815.92	814.6667	806
IT	1-earner average wage	Gross wage income	2556.9	2556.895	2556.895
IT	1-earner average wage	Net disposable income	1777.35	1774.768	1754.164
IT	1-earner average wage	Social insurance contributions	-242.65	-242.649	-242.649
IT	1-earner average wage	Total tax	-536.9	-539.478	-560.081
IT	1-earner minimum wage	Gross wage income	1196.89	1196.888	1196.888
IT	1-earner minimum wage	Net disposable income	938.86	933.8508	928.3167
IT	1-earner minimum wage	Social insurance contributions	-113.58	-113.585	-113.585
IT	1-earner minimum wage	Total tax	-144.45	-149.453	-154.987
IT	social assistance case	Heating allowance		11.5	
IT	social assistance case	Housing allowance		100	
IT	social assistance case	Net disposable income		288.1633	
IT	social assistance case	Total social assistance benefit		353.54	
IT	social assistance case	Total tax		-5.35667	
LT	1-earner average wage	Gross wage income	2138.1	2138.1	2138.1
LT	1-earner average wage	Net disposable income	1655.31	1655.31	1655.313
LT	1-earner average wage	Social insurance contributions	-192.43	-192.43	-192.429
LT	1-earner average wage	Total tax	-290.36	-290.36	-290.358
LT	1-earner minimum wage	Gross wage income	800	800	800
LT	1-earner minimum wage	Net disposable income	678.5	678.5	678.5
LT	1-earner minimum wage	Social insurance contributions	-72	-72	-72
LT	1-earner minimum wage	Total tax	-49.5	-49.5	-49.5
LT	social assistance case	Net disposable income		350	350
LT	social assistance case	Social insurance contributions	-72		
LT	social assistance case	Total social assistance benefit		350	350
LU	1-earner average wage	Gross wage income	3951.53	3951.53	3951.53
LU	1-earner average wage	Net disposable income	2916.69	2888.171	2916.694
LU	1-earner average wage	Social insurance contributions	-485.66	-485.66	-485.66
LU	1-earner average wage	Total social assistance benefit	123.94		
LU	1-earner average wage	Total tax	-549.18	-577.699	-549.175
LU	1-earner minimum wage	Gross wage income	1801.49	1801.49	1801.49
LU	1-earner minimum wage	Net disposable income	1682.49	1653.981	1659.062
LU	1-earner minimum wage	Social insurance contributions	-218.76	-218.76	-217.98
LU	1-earner minimum wage	Total social assistance benefit	261.78	27.86	110
LU	1-earner minimum wage	Total tax	-38.09	-66.6092	-34.4481
LU	social assistance case	Heating allowance		110	
LU	social assistance case	Net disposable income	1426.1	1409.651	1323.953
LU	social assistance case	Social insurance contributions	-52.8	-40.74	-47.5909

Country	Income case	Income component	HHoT	MIPI	OECD
LU	social assistance case	Total social assistance benefit	1641.12	1407.19	1393.24
LU	social assistance case	Total tax	-38.28	-66.7992	-21.6961
LV	1-earner average wage	Gross wage income	475.9	475.897	475.897
LV	1-earner average wage	Net disposable income	328.91	322.1312	328.9113
LV	1-earner average wage	Social insurance contributions	-52.35	-52.3487	-52.3487
LV	1-earner average wage	Total tax	-94.64	-101.417	-94.6371
LV	1-earner minimum wage	Gross wage income	200	200	200
LV	1-earner minimum wage	Housing allowance		38	
LV	1-earner minimum wage	Net disposable income	144.75	175.97	144.75
LV	1-earner minimum wage	Social insurance contributions	-22	-22	-22
LV	1-earner minimum wage	Total tax	-33.25	-40.03	-33.25
LV	social assistance case	Housing allowance	38	38	38
LV	social assistance case	Net disposable income	78	71.22	78
LV	social assistance case	Total social assistance benefit	40	40	40
LV	social assistance case	Total tax		-6.78	
NL	1-earner average wage	Gross wage income	4419.6	4419.604	4419.604
NL	1-earner average wage	Net disposable income	2774.6	2730.205	2947.452
NL	1-earner average wage	Social insurance contributions	-701.2	-192.709	-599.367
NL	1-earner average wage	Total tax	-943.8	-1496.69	-872.785
NL	1-earner minimum wage	Gross wage income	1567.51	1567.505	176.1293
NL	1-earner minimum wage	Housing allowance	127.5	48	127.5
NL	1-earner minimum wage	Net disposable income	1392.4	1292.259	1063.333
NL	1-earner minimum wage	Social insurance contributions	-347.88	-25.8613	
NL	1-earner minimum wage	Total social assistance benefit			609.2081
NL	1-earner minimum wage	Total tax	-24.26	-297.384	
NL	social assistance case	Housing allowance	127.5	128	127.5
NL	social assistance case	Net disposable income	1030.99	1063.667	1063.333
NL	social assistance case	Social insurance contributions	-338.33		
NL	social assistance case	Total social assistance benefit	1186.79	1187.083	935.8333
NL	social assistance case	Total tax	-14.8	-251.417	
PL	1-earner average wage	Gross wage income	3859.84	3859.84	3859.84
PL	1-earner average wage	Housing allowance	1		
PL	1-earner average wage	Net disposable income	2755.86	2734.054	2871.397
PL	1-earner average wage	Social insurance contributions	-529.18	-828.943	-688.05
PL	1-earner average wage	Total tax	-574.79	-296.843	-300.393
PL	1-earner minimum wage	Gross wage income	1500	1500	1500
PL	1-earner minimum wage	Housing allowance	1	207.4579	
PL	1-earner minimum wage	Net disposable income	1111.55	1297.195	1156.446
PL	1-earner minimum wage	Social insurance contributions	-205.65	-322.142	-267.388
PL	1-earner minimum wage	Total tax	-182.8	-88.121	-76.1665
PL	social assistance case	Housing allowance	1	300.8372	303.0769
PL	social assistance case	Net disposable income		367.1084	477
PL	social assistance case	Total social assistance benefit		88.08139	173.9231
PL	social assistance case	Total tax		-21.8102	
PT	1-earner average wage	Gross wage income	1227.22	1227.217	1227.217
PT	1-earner average wage	Net disposable income	978.46	814.229	972.1572
PT	1-earner average wage	Social insurance contributions	-134.99	-134.994	-134.994
PT	1-earner average wage	Total tax	-113.77	-147.994	-120.066
PT	1-earner minimum wage	Gross wage income	565.83	565.8333	565.8333

Country	Income case	Income component	HHoT	MIPI	OECD
PT	1-earner minimum wage	Net disposable income	503.59	360.5917	503.5917
PT	1-earner minimum wage	Social insurance contributions	-62.24	-62.2417	-62.2417
PT	1-earner minimum wage	Total tax		-13	
PT	social assistance case	Net disposable income	189.52	134.52	189.52
PT	social assistance case	Total social assistance benefit	189.52	189.52	189.52
PT	social assistance case	Total tax		-13	
RO	1-earner average wage	Gross wage income	2022	2022	2022
RO	1-earner average wage	Net disposable income	1437.791	1424.1	1498.478
RO	1-earner average wage	Social insurance contributions	-222.42	-333	-262.86
RO	1-earner average wage	Total tax	-361.789	-264.9	-260.662
RO	1-earner minimum wage	Gross wage income	700	700	700
RO	1-earner minimum wage	Heating allowance		17.08333	
RO	1-earner minimum wage	Net disposable income	530.98	531.1833	551.56
RO	1-earner minimum wage	Social insurance contributions	-77	-117	-91
RO	1-earner minimum wage	Total tax	-92.02	-68.9	-57.44
RO	social assistance case	Heating allowance		85.41666	
RO	social assistance case	Net disposable income	125	194.5167	125
RO	social assistance case	Total social assistance benefit	125	125	125
RO	social assistance case	Total tax		-15.9	
SE	1-earner average wage	Gross wage income	30959	30959	30959
SE	1-earner average wage	Net disposable income	23260.13	23523.02	23340.58
SE	1-earner average wage	Social insurance contributions	-2166.67	-2167.13	-2166.67
SE	1-earner average wage	Total tax	-5532.2	-5268.85	-7276.42
SE	1-earner minimum wage	Housing allowance			4829
SE	1-earner minimum wage	Net disposable income			8669
SE	1-earner minimum wage	Total social assistance benefit			3840
SE	social assistance case	Housing allowance			4829
SE	social assistance case	Net disposable income	8669	8669	8669
SE	social assistance case	Net disposable income	8669	8669	8669
SE	social assistance case	Total social assistance benefit	8669	8669	3840
SE	social assistance case	Total social assistance benefit	8669	8669	3840
SI	1-earner average wage	Gross wage income	1529.09	1529.087	1529.087
SI	1-earner average wage	Net disposable income	1014.06	1014.058	1014.057
SI	1-earner average wage	Social insurance contributions	-337.93	-337.928	-337.928
SI	1-earner average wage	Total tax	-177.1	-177.101	-177.101
SI	1-earner minimum wage	Gross wage income	763.06	763.06	763.06
SI	1-earner minimum wage	Housing allowance	70.25	117.2539	68
SI	1-earner minimum wage	Net disposable income	654.55	701.5464	652.2925
SI	1-earner minimum wage	Social insurance contributions	-168.64	-168.636	-168.636
SI	1-earner minimum wage	Total tax	-10.13	-10.1313	-10.1313
SI	social assistance case	Housing allowance	70.25	117.2539	68
SI	social assistance case	Net disposable income	330.25	377.2539	328
SI	social assistance case	Total social assistance benefit	260	260	260
SK	1-earner average wage	Gross wage income	987	987	987
SK	1-earner average wage	Net disposable income	750.05	750.0667	750.0493
SK	1-earner average wage	Social insurance contributions	-132.26	-132.258	-132.258
SK	1-earner average wage	Total tax	-104.69	-104.693	-104.693
SK	1-earner minimum wage	Gross wage income	327.2	327.2	327.2

Country	Income case	Income component	HHoT	MIPI	OECD
SK	1-earner minimum wage	Net disposable income	287.23	287.2258	287.2213
SK	1-earner minimum wage	Social insurance contributions	-43.84	-43.845	-43.8448
SK	1-earner minimum wage	Total tax		3.870833	
SK	social assistance case	Housing allowance			55.8
SK	social assistance case	Net disposable income	181.37	118.3	118.3
SK	social assistance case	Total social assistance benefit	181.37	116.3	62.5
UK	1-earner average wage	Gross wage income	2904.25	2904.25	2904.25
UK	1-earner average wage	Housing allowance	2753		
UK	1-earner average wage	Net disposable income	2062.87	2076.167	2186.093
UK	1-earner average wage	Social insurance contributions	-426.4	-276.233	-272.39
UK	1-earner average wage	Total tax	-414.98	-551.85	-445.767
UK	1-earner minimum wage	Gross wage income	923.58	923.5833	923.5833
UK	1-earner minimum wage	Housing allowance	2753		
UK	1-earner minimum wage	Net disposable income	886.58	809.9167	905.7542
UK	1-earner minimum wage	Social insurance contributions	-83.74	-34.9167	-34.71
UK	1-earner minimum wage	Total tax	-39.84	-78.75	-49.6333
UK	social assistance case	Housing allowance	3073	320	320
UK	social assistance case	Net disposable income	628.14	583.3333	627.6667
UK	social assistance case	Total social assistance benefit	308.14	292.9167	
UK	social assistance case	Total tax		-29.5833	

Source: own calculations using HHoT, MIPI and OECD tax-benefit calculator

Table a1.2 Income components for a couple with two children, 2012 (income case 1,2 & 3, Housing assumption B)

Country	Income case	Income component	HHoT	MIPI	OECD
AT	2-earner average wage	Gross wage income	4803.13	4803.13	4803.129
AT	2-earner average wage	Net disposable income	3825.61	3827.252	3823.007
AT	2-earner average wage	Social insurance contributions	-863.47	-861.063	-867.308
AT	2-earner average wage	Total tax	-503.92	-504.682	-502.682
AT	1-earner average wage	Gross wage income	3006.3	3006.3	3006.3
AT	1-earner average wage	Housing allowance		107.54	
AT	1-earner average wage	Net disposable income	2505.65	2614.043	2504.024
AT	1-earner average wage	Social insurance contributions	-540.45	-538.943	-542.852
AT	1-earner average wage	Total tax	-350.07	-350.72	-349.291
AT	1-earner minimum wage	Gross wage income	1166.67	1166.667	1166.667
AT	1-earner minimum wage	Heating allowance		8.333333	
AT	1-earner minimum wage	Housing allowance		259.02	303
AT	1-earner minimum wage	Net disposable income	1590.48	2234.68	2044.42
AT	1-earner minimum wage	Social insurance contributions	-174.73	-174.15	-175.667
AT	1-earner minimum wage	Total social assistance benefit	143.76	520.0267	295.6366
AT	1-earner minimum wage	Total tax		64.91666	
BE	2-earner average wage	Gross wage income	6660.51	6660.517	6660.518
BE	2-earner average wage	Net disposable income	4347.52	4298.958	4358.847
BE	2-earner average wage	Social insurance contributions	-931.47	-928.275	-931.47
BE	2-earner average wage	Total social assistance benefit	37532.32		

Country	Income case	Income component	HHoT	MIPI	OECD
BE	2-earner average wage	Total tax	-1699.53	-1745.04	-1696.37
BE	1-earner average wage	Gross wage income	3562.97	3562.975	3562.975
BE	1-earner average wage	Net disposable income	2819.47	2768.557	2828.692
BE	1-earner average wage	Social insurance contributions	-498.41	-496.76	-498.407
BE	1-earner average wage	Total social assistance benefit	17735.98		
BE	1-earner average wage	Total tax	-563.09	-609.41	-562.044
BE	1-earner minimum wage	Gross wage income	1604.94	1604.944	1604.944
BE	1-earner minimum wage	Net disposable income	1937.15	1893.676	1900.938
BE	1-earner minimum wage	Social insurance contributions	-69.7	-33.9958	-70.4603
BE	1-earner minimum wage	Total social assistance benefit	10085.7		
BE	1-earner minimum wage	Total tax		10.97632	
BG	2-earner average wage	Gross wage income	1447.08	1447.082	1447.082
BG	2-earner average wage	Net disposable income	1134.37	1119.284	1134.367
BG	2-earner average wage	Social insurance contributions	-186.67	-186.674	-186.674
BG	2-earner average wage	Total tax	-126.04	-141.124	-126.041
BG	1-earner average wage	Gross wage income	773.04	773.0398	773.0398
BG	1-earner average wage	Net disposable income	688.49	675.8292	688.4859
BG	1-earner average wage	Social insurance contributions	-99.72	-99.7221	-99.7221
BG	1-earner average wage	Total tax	-67.33	-79.9884	-67.3318
BG	1-earner minimum wage	Gross wage income	286.2	286.2	286.2
BG	1-earner minimum wage	Heating allowance		25.43333	
BG	1-earner minimum wage	Net disposable income	334.24	319.6288	330.5439
BG	1-earner minimum wage	Social insurance contributions	-36.92	-36.9198	-36.9198
BG	1-earner minimum wage	Total social assistance benefit	27.38		23.69167
BG	1-earner minimum wage	Total tax	-24.93	-37.5847	-24.928
CZ	2-earner average wage	Gross wage income	51685	51685	51685.01
CZ	2-earner average wage	Net disposable income	41984.96	41960	41984.97
CZ	2-earner average wage	Social insurance contributions	-5685.35	-5685.33	-5685.35
CZ	2-earner average wage	Total tax	-4014.69	-4039.67	-4014.69
CZ	1-earner average wage	Gross wage income	28825	28825	28825
CZ	1-earner average wage	Net disposable income	26234.42	25129.42	26234.42
CZ	1-earner average wage	Social insurance contributions	-3170.75	-4250.75	-3170.75
CZ	1-earner average wage	Total tax		555.1667	
CZ	1-earner minimum wage	Gross wage income	8000	8000	8000
CZ	1-earner minimum wage	Housing allowance	459.62	3057	6132
CZ	1-earner minimum wage	Net disposable income	17882.12	18833	19188.2
CZ	1-earner minimum wage	Social insurance contributions	-880	-1960	-880
CZ	1-earner minimum wage	Total social assistance benefit	6848.5	6307	2482.2
CZ	1-earner minimum wage	Total tax		2209	
DE	2-earner average wage	Gross wage income	7184.92	7184.928	7184.93
DE	2-earner average wage	Net disposable income	4694.56	4970.183	4781.496
DE	2-earner average wage	Social insurance contributions	-1450.77	-1450.77	-1450.77
DE	2-earner average wage	Total tax	-1407.6	-1131.98	-952.665
DE	1-earner average wage	Gross wage income	4046.75	4046.753	4046.753

Country	Income case	Income component	HHoT	MIPI	OECD
DE	1-earner average wage	Net disposable income	3073.89	3244.209	3127.76
DE	1-earner average wage	Social insurance contributions	-808.23	-808.227	-808.227
DE	1-earner average wage	Total tax	-532.64	-362.317	-478.767
DE	1-earner minimum wage	Gross wage income	1299	1299	1299
DE	1-earner minimum wage	Housing allowance			152.4891
DE	1-earner minimum wage	Net disposable income	2065.9	1986.9	1956.667
DE	1-earner minimum wage	Social insurance contributions	-265.97	-265.97	-265.97
DE	1-earner minimum wage	Total social assistance benefit	664.87	585.8702	386.4811
DK	2-earner average wage	Gross wage income	64982.66	64982.67	64982.67
DK	2-earner average wage	Net disposable income	43671.56	42937.61	59388.86
DK	2-earner average wage	Social insurance contributions	-5378.62	-8718.5	
DK	2-earner average wage	Total tax	-17971.2	-15098.6	-7365.81
DK	1-earner average wage	Gross wage income	32491.33	32491.33	32491.33
DK	1-earner average wage	Housing allowance	135.54		
DK	1-earner average wage	Net disposable income	24155.61	23823.05	30771.93
DK	1-earner average wage	Social insurance contributions	-2689.31	-4109	
DK	1-earner average wage	Total social assistance benefit			58.16927
DK	1-earner average wage	Total tax	-7820.62	-6331.29	-3549.57
DK	1-earner minimum wage	Gross wage income	16068.74	16068.71	16068.74
DK	1-earner minimum wage	Housing allowance	933.57		
DK	1-earner minimum wage	Net disposable income	22070.98	14202.84	28317.26
DK	1-earner minimum wage	Social insurance contributions	-1375.5	-1770.33	
DK	1-earner minimum wage	Total social assistance benefit	10675.26		15166.95
DK	1-earner minimum wage	Total tax	-6269.75	-1867.55	-4690.44
EE	2-earner average wage	Gross wage income	1690.32	1690.312	1690.312
EE	2-earner average wage	Net disposable income	1400.33	1396.979	
EE	2-earner average wage	Social insurance contributions	-81.14	-81.135	
EE	2-earner average wage	Total tax	-247.21	-250.558	
EE	1-earner average wage	Gross wage income	956.85	956.8469	956.8467
EE	1-earner average wage	Net disposable income	848.71	842.0038	
EE	1-earner average wage	Social insurance contributions	-45.93	-45.9287	
EE	1-earner average wage	Total tax	-100.57	-107.275	
EE	1-earner minimum wage	Gross wage income	290	290	289.9999
EE	1-earner minimum wage	Housing allowance			25.35009
EE	1-earner minimum wage	Net disposable income	379.52	498.5168	
EE	1-earner minimum wage	Social insurance contributions	-13.92	-13.92	
EE	1-earner minimum wage	Total social assistance benefit	65.08	190.7785	
EE	1-earner minimum wage	Total tax		-6.70167	
ES	2-earner average wage	Gross wage income	4336.76	4336.763	4336.764
ES	2-earner average wage	Net disposable income	3439.47	3397.521	3422.925
ES	2-earner average wage	Social insurance contributions	-275.38	-275.385	-275.385
ES	2-earner average wage	Total tax	-621.91	-663.858	-638.455
ES	1-earner average wage	Gross wage income	2327.44	2327.442	2327.442
ES	1-earner average wage	Net disposable income	2098.2	1804.103	1940.705

Country	Income case	Income component	HHoT	MIPI	OECD
ES	1-earner average wage	Social insurance contributions	-147.79	-147.793	-147.793
ES	1-earner average wage	Total tax	-81.45	-375.546	-238.944
ES	1-earner minimum wage	Gross wage income	748.3	748.3	748.3
ES	1-earner minimum wage	Net disposable income	741.37	716.0534	749.2829
ES	1-earner minimum wage	Social insurance contributions	-55.43	-47.5171	-47.5171
ES	1-earner minimum wage	Total tax		-8.9796	
FI	2-earner average wage	Gross wage income	6404	6404	6404.001
FI	2-earner average wage	Net disposable income	4815.71	4815.164	4815.165
FI	2-earner average wage	Social insurance contributions	-420.75	-487.397	-492.478
FI	2-earner average wage	Total tax	-1386.86	-1320.76	-1549.62
FI	1-earner average wage	Gross wage income	3508	3508	3508
FI	1-earner average wage	Net disposable income	2688.7	2688.399	2688.399
FI	1-earner average wage	Social insurance contributions	-230.48	-267.459	-269.831
FI	1-earner average wage	Total tax	-808.14	-771.463	-879.878
FI	1-earner minimum wage	Gross wage income	1408	1408	1408
FI	1-earner minimum wage	Housing allowance		363.2	363.2
FI	1-earner minimum wage	Net disposable income	1427.69	2113.928	2113.929
FI	1-earner minimum wage	Social insurance contributions	-92.51	-98.6071	-102.838
FI	1-earner minimum wage	Total social assistance benefit		318.2892	318.2902
FI	1-earner minimum wage	Total tax	-107.13	-96.2742	-241.775
FR	2-earner average wage	Gross wage income	5545	5545	5545
FR	2-earner average wage	Net disposable income	4251.99	4228.84	4243.906
FR	2-earner average wage	Social insurance contributions	-771.78	-1201.17	-759.061
FR	2-earner average wage	Total tax	-648.3	-240.77	-669.714
FR	1-earner average wage	Gross wage income	3070	3070	3070
FR	1-earner average wage	Net disposable income	2573.65	2546.382	2513.399
FR	1-earner average wage	Social insurance contributions	-427.01	-664.34	-419.986
FR	1-earner average wage	Total tax	-257.4	-33.86	-264.295
FR	1-earner minimum wage	Gross wage income	1398.37	1398.37	1398.37
FR	1-earner minimum wage	Housing allowance	323.77	345.29	233.5659
FR	1-earner minimum wage	Net disposable income	1976.39	1942.587	1753.614
FR	1-earner minimum wage	Social insurance contributions	-194.79	-303.31	-191.577
FR	1-earner minimum wage	Total social assistance benefit	343.6	341.0944	236.594
FR	1-earner minimum wage	Total tax	-112.31	-13.44	-112.023
HU	2-earner average wage	Gross wage income	438480	438480	438480
HU	2-earner average wage	Net disposable income	320077.2	332314.8	332314.9
HU	2-earner average wage	Social insurance contributions	-81118.8	-81118.8	-81118.8
HU	2-earner average wage	Total tax	-63884	-51646.3	-51646.3
HU	1-earner average wage	Gross wage income	219240	219240	219240
HU	1-earner average wage	Housing allowance			2600
HU	1-earner average wage	Net disposable income	185946.2	227735.1	192057.4
HU	1-earner average wage	Social insurance contributions	-40559.4	-40559.4	-40559.4
HU	1-earner average wage	Total social assistance benefit		38277.67	
HU	1-earner average wage	Total tax	-19334.4	-15823.2	-15823.2

Country	Income case	Income component	HHoT	MIPI	OECD
HU	1-earner minimum wage	Gross wage income	93000	93000	93000
HU	1-earner minimum wage	Housing allowance			6400
HU	1-earner minimum wage	Net disposable income	107873.4	151187.7	110728.3
HU	1-earner minimum wage	Social insurance contributions	-17205	-17205	-17205
HU	1-earner minimum wage	Total social assistance benefit	9023.4	48792.67	
IE	2-earner average wage	Gross wage income	6127.15	6127.15	6127.148
IE	2-earner average wage	Net disposable income	4413.64	4969.584	5139.591
IE	2-earner average wage	Social insurance contributions	-1048.98	-222.967	-201.059
IE	2-earner average wage	Total tax	-944.54	-1214.6	-1066.5
IE	1-earner average wage	Gross wage income	3626.94	3626.942	3626.942
IE	1-earner average wage	Net disposable income	2916.83	3215.485	3310.462
IE	1-earner average wage	Social insurance contributions	-651.81	-122.959	-123.064
IE	1-earner average wage	Total tax	-338.3	-568.499	-473.415
IE	1-earner minimum wage	Gross wage income	1385.8	1385.8	1385.8
IE	1-earner minimum wage	Net disposable income	2667.69	2362.612	2384.038
IE	1-earner minimum wage	Social insurance contributions	-125.97		
IE	1-earner minimum wage	Total social assistance benefit	356.38		
IE	1-earner minimum wage	Total tax	-40.24	-68.5727	-38.7053
IT	2-earner average wage	Gross wage income	4586.78	4586.774	4586.773
IT	2-earner average wage	Net disposable income	3386.14	3362.992	3348.588
IT	2-earner average wage	Social insurance contributions	-435.29	-435.285	-435.285
IT	2-earner average wage	Total tax	-823.21	-843.297	-860.8
IT	1-earner average wage	Gross wage income	2556.9	2556.895	2556.895
IT	1-earner average wage	Net disposable income	2055.87	1987.755	2032.086
IT	1-earner average wage	Social insurance contributions	-242.65	-242.649	-242.649
IT	1-earner average wage	Total tax	-379.73	-410.411	-402.91
IT	1-earner minimum wage	Gross wage income	1196.89	1196.888	1196.888
IT	1-earner minimum wage	Heating allowance		11.5	
IT	1-earner minimum wage	Net disposable income	1341.63	1321.356	1341.634
IT	1-earner minimum wage	Social insurance contributions	-113.58	-113.585	-113.585
IT	1-earner minimum wage	Total tax		-38.5275	
LT	2-earner average wage	Gross wage income	4276.2	4276.2	4276.2
LT	2-earner average wage	Net disposable income	3355.62	3355.62	3355.626
LT	2-earner average wage	Social insurance contributions	-384.86	-384.86	-384.858
LT	2-earner average wage	Total tax	-535.72	-535.72	-535.716
LT	1-earner average wage	Gross wage income	2138.1	2138.1	2138.1
LT	1-earner average wage	Net disposable income	1700.31	1804.31	1726.313
LT	1-earner average wage	Social insurance contributions	-192.43	-192.43	-192.429
LT	1-earner average wage	Total social assistance benefit			26
LT	1-earner average wage	Total tax	-245.36	-245.36	-245.358
LT	1-earner minimum wage	Gross wage income	800	800	800
LT	1-earner minimum wage	Net disposable income	723.5	1271.2	1290.7
LT	1-earner minimum wage	Social insurance contributions	-72	-72	-72
LT	1-earner minimum wage	Total social assistance benefit		443.7	567.2

Country	Income case	Income component	HHoT	MIPI	OECD
LT	1-earner minimum wage	Total tax	-4.5	-4.5	-4.5
LU	2-earner average wage	Gross wage income	7499.38	7499.38	7499.379
LU	2-earner average wage	Net disposable income	6447.42	6374.553	6447.429
LU	2-earner average wage	Social insurance contributions	-921.06	-921.06	-921.062
LU	2-earner average wage	Total social assistance benefit	123.94		
LU	2-earner average wage	Total tax	-826.43	-899.297	-826.432
LU	1-earner average wage	Gross wage income	3951.53	3951.53	3951.53
LU	1-earner average wage	Heating allowance		37.1	
LU	1-earner average wage	Net disposable income	4037.7	3964.833	3999.907
LU	1-earner average wage	Social insurance contributions	-485.66	-485.66	-485.66
LU	1-earner average wage	Total social assistance benefit	161.05		
LU	1-earner average wage	Total tax	-160.81	-233.677	-161.507
LU	1-earner minimum wage	Gross wage income	1801.49	1801.49	1801.49
LU	1-earner minimum wage	Housing allowance			123.94
LU	1-earner minimum wage	Net disposable income	3546.77	3482.923	3512.654
LU	1-earner minimum wage	Social insurance contributions	-260.62	-251.61	-265.36
LU	1-earner minimum wage	Total social assistance benefit	1481.71	1165.28	1196.644
LU	1-earner minimum wage	Total tax	-47.4	-120.267	-39.6048
LV	2-earner average wage	Gross wage income	951.8	951.7939	951.794
LV	2-earner average wage	Net disposable income	708.82	702.0425	708.8225
LV	2-earner average wage	Social insurance contributions	-104.7	-104.697	-104.697
LV	2-earner average wage	Total tax	-154.28	-161.054	-154.274
LV	1-earner average wage	Gross wage income	475.9	475.897	475.897
LV	1-earner average wage	Net disposable income	397.41	390.6312	397.4113
LV	1-earner average wage	Social insurance contributions	-52.35	-52.3487	-52.3487
LV	1-earner average wage	Total tax	-42.14	-48.9171	-42.1371
LV	1-earner minimum wage	Gross wage income	200	200	200
LV	1-earner minimum wage	Housing allowance	14	38	13.99998
LV	1-earner minimum wage	Net disposable income	208	225.22	208
LV	1-earner minimum wage	Social insurance contributions	-22	-22	-22
LV	1-earner minimum wage	Total tax		-6.78	
NL	2-earner average wage	Gross wage income	8308.72	8308.725	8308.724
NL	2-earner average wage	Net disposable income	5596.14	5563.81	6116.148
NL	2-earner average wage	Social insurance contributions	-1233.72	-354.385	-1028.29
NL	2-earner average wage	Total tax	-1644.98	-2556.65	-1510.87
NL	1-earner average wage	Gross wage income	4419.6	4419.604	4419.604
NL	1-earner average wage	Net disposable income	2963.12	3017.572	3240.532
NL	1-earner average wage	Social insurance contributions	-686.12	-192.709	-482.437
NL	1-earner average wage	Total tax	-936.48	-1375.45	-865.465
NL	1-earner minimum wage	Gross wage income	1567.51	1567.505	176.1293
NL	1-earner minimum wage	Housing allowance	215.09	207	206.5295
NL	1-earner minimum wage	Net disposable income	1886.26	1919.315	1835.359
NL	1-earner minimum wage	Social insurance contributions	-332.8	-25.8613	
NL	1-earner minimum wage	Total social assistance benefit			934.8792

Country	Income case	Income component	HHoT	MIPI	OECD
NL	1-earner minimum wage	Total tax	-16.94	-137.869	
PL	2-earner average wage	Gross wage income	7139.79	7139.79	7139.789
PL	2-earner average wage	Housing allowance	4		
PL	2-earner average wage	Net disposable income	5293.01	5264.095	5506.713
PL	2-earner average wage	Social insurance contributions	-978.86	-1533.35	-1272.73
PL	2-earner average wage	Total tax	-867.91	-342.346	-360.346
PL	1-earner average wage	Gross wage income	3859.84	3859.84	3859.84
PL	1-earner average wage	Housing allowance	4	195.6614	
PL	1-earner average wage	Net disposable income	2987.54	3107.955	3103.072
PL	1-earner average wage	Social insurance contributions	-529.18	-828.943	-688.05
PL	1-earner average wage	Total tax	-343.12	-118.604	-68.7181
PL	1-earner minimum wage	Gross wage income	1500	1500	1500
PL	1-earner minimum wage	Housing allowance	4	445.7895	123.0769
PL	1-earner minimum wage	Net disposable income	1376.53	1793.403	1537.689
PL	1-earner minimum wage	Social insurance contributions	-205.65	-322.142	-267.388
PL	1-earner minimum wage	Total tax	-116.49	-28.9111	
PT	2-earner average wage	Gross wage income	2209.55	2209.55	2209.55
PT	2-earner average wage	Net disposable income	1824.33	1543.581	1818.031
PT	2-earner average wage	Social insurance contributions	-243.05	-243.051	-243.051
PT	2-earner average wage	Total tax	-142.17	-422.919	-148.468
PT	1-earner average wage	Gross wage income	1227.22	1227.217	1227.217
PT	1-earner average wage	Net disposable income	1157.78	849.9059	1127.154
PT	1-earner average wage	Social insurance contributions	-134.99	-134.994	-134.994
PT	1-earner average wage	Total tax	-22.01	-92.6969	-28.3137
PT	1-earner minimum wage	Gross wage income	565.83	565.8333	565.8333
PT	1-earner minimum wage	Net disposable income	674.06	340.7717	579.8367
PT	1-earner minimum wage	Social insurance contributions	-62.24	-62.2417	-62.2417
PT	1-earner minimum wage	Total social assistance benefit	59.03		
PT	1-earner minimum wage	Total tax		-25.2	
RO	2-earner average wage	Gross wage income	4044	4044	4044
RO	2-earner average wage	Net disposable income	2975.229	2964.1	3095.355
RO	2-earner average wage	Social insurance contributions	-444.84	-666	-525.72
RO	2-earner average wage	Total tax	-707.93	-497.9	-506.925
RO	1-earner average wage	Gross wage income	2022	2022	2022
RO	1-earner average wage	Heating allowance		34.16667	
RO	1-earner average wage	Net disposable income	1545.263	1530.1	1604.878
RO	1-earner average wage	Social insurance contributions	-222.42	-333	-262.86
RO	1-earner average wage	Total tax	-338.317	-242.9	-238.262
RO	1-earner minimum wage	Gross wage income	700	700	700
RO	1-earner minimum wage	Heating allowance		68.33334	
RO	1-earner minimum wage	Net disposable income	722.98	764.4333	743.56
RO	1-earner minimum wage	Social insurance contributions	-77	-117	-91
RO	1-earner minimum wage	Total tax	-44.02	-20.9	-9.44
SE	2-earner average wage	Gross wage income	57466.42	57466.42	57466.41

Country	Income case	Income component	HHoT	MIPI	OECD
SE	2-earner average wage	Net disposable income	45738.37	46200.09	45888.32
SE	2-earner average wage	Social insurance contributions	-4025	-4022.65	-4025
SE	2-earner average wage	Total tax	-9953.04	-9493.68	-13376
SE	1-earner average wage	Gross wage income	30959	30959	30959
SE	1-earner average wage	Net disposable income	25510.13	25773.02	25590.58
SE	1-earner average wage	Social insurance contributions	-2166.67	-2167.13	-2166.67
SE	1-earner average wage	Total tax	-5532.2	-5268.85	-7276.42
SE	1-earner minimum wage	Housing allowance			7368.701
SE	1-earner minimum wage	Net disposable income			19875
SE	1-earner minimum wage	Total social assistance benefit			10256.3
SI	2-earner average wage	Gross wage income	3058.18	3058.173	3058.173
SI	2-earner average wage	Net disposable income	2185.66	2192.833	2185.657
SI	2-earner average wage	Social insurance contributions	-675.86	-675.856	-675.856
SI	2-earner average wage	Total tax	-258.35	-258.349	-258.35
SI	1-earner average wage	Gross wage income	1529.09	1529.087	1529.087
SI	1-earner average wage	Housing allowance	144.01	154.0083	144
SI	1-earner average wage	Net disposable income	1491.45	1502.427	1491.442
SI	1-earner average wage	Social insurance contributions	-337.93	-337.928	-337.928
SI	1-earner average wage	Total tax	-49.49	-49.4868	-49.4868
SI	1-earner minimum wage	Gross wage income	763.06	763.06	763.06
SI	1-earner minimum wage	Housing allowance	144.01	154.0083	144
SI	1-earner minimum wage	Net disposable income	1069.61	1079.608	1145
SI	1-earner minimum wage	Social insurance contributions	-168.64	-168.636	-168.636
SI	1-earner minimum wage	Total social assistance benefit	91.14	89.99606	166.5363
SK	2-earner average wage	Gross wage income	1726	1726	1726
SK	2-earner average wage	Net disposable income	1412.24	1412.677	1413.277
SK	2-earner average wage	Social insurance contributions	-231.29	-231.284	-231.284
SK	2-earner average wage	Total tax	-127.56	-127.039	-168.58
SK	1-earner average wage	Gross wage income	987	987	987
SK	1-earner average wage	Net disposable income	846.27	905.7058	894.8976
SK	1-earner average wage	Social insurance contributions	-132.26	-132.258	-132.258
SK	1-earner average wage	Total tax	-53.55	5.964167	-46.9843
SK	1-earner minimum wage	Gross wage income	327.2	327.2	327.2
SK	1-earner minimum wage	Housing allowance			19.50712
SK	1-earner minimum wage	Net disposable income	541.75	512.9958	433.8449
SK	1-earner minimum wage	Social insurance contributions	-43.84	-43.845	-43.8448
SK	1-earner minimum wage	Total social assistance benefit	168.42	139.7533	39.97647
SK	1-earner minimum wage	Total tax		44.89083	
UK	2-earner average wage	Gross wage income	5202.83	5202.833	5202.833
UK	2-earner average wage	Housing allowance	8842		
UK	2-earner average wage	Net disposable income	3885.83	3960.333	4106.367
UK	2-earner average wage	Social insurance contributions	-748.02	-479.75	-472.1
UK	2-earner average wage	Total tax	-715.25	-909	-770.4
UK	1-earner average wage	Gross wage income	2904.25	2904.25	2904.25

Country	Income case	Income component	HHoT	MIPI	OECD
UK	1-earner average wage	Housing allowance	8842		
UK	1-earner average wage	Net disposable income	2209.13	2245.833	2332.127
UK	1-earner average wage	Social insurance contributions	-426.4	-276.233	-272.39
UK	1-earner average wage	Total tax	-414.98	-528.433	-445.767
UK	1-earner minimum wage	Gross wage income	923.58	923.5833	923.5833
UK	1-earner minimum wage	Housing allowance	8976.859	120.9167	137.0667
UK	1-earner minimum wage	Net disposable income	1823.95	1707.333	1845.104
UK	1-earner minimum wage	Social insurance contributions	-83.74	-34.9167	-34.71
UK	1-earner minimum wage	Total tax	-39.84	551.5	-49.6333

Source: own calculations using HHoT, MIPI and OECD tax-benefit calculator

Table a1.3 Yearly wage, 2012

	minimum wage	average female wage	average male wage
AT	14,000	21,562	36,076
BE	19,259	37,171	42,756
BG	3,434	8,089	9,276
CZ	96,000	274,320	345,900
DE	15,588	37,658	48,561
DK	192,825	389,896	389,896
EE	3,480	8,802	11,482
EL	9,800	15,600	19,200
ES	8,980	24,112	27,929
FI	16,896	34,752	42,096
FR	16,780	29,700	36,840
HU	1,116,000	2,630,880	2,630,880
IE	16,630	30,002	43,523
IT	14,363	24,359	30,683
LT	9,600	25,657	25,657
LU	21,618	42,574	47,418
LV	2,400	5,711	5,711
NL	18,810	46,669	53,035
PL	18,000	39,359	46,318
PT	6,790	11,788	14,727
RO	8,400	24,264	24,264
SE	0	318,089	371,508
SI	9,157	18,349	18,349
SK	3,926	8,868	11,844
UK	11,083	27,583	34,851

Source: CSB-MIPI 2012

Table a1.4 Median yearly housing cost for all simulated hypothetical households, assumption A, 2012

	Housing cost assumption A				
	Family type A	Family type B	Family type C	Family type D	Family type E
AT	2,748	2,748	4,392	3,684	3,072
BE	3,288	3,288	4,032	4,032	4,032
BG	0	0	0	0	0
CZ	44,148	44,148	49,056	49,056	53,964
DE	2,304	2,304	3,708	3,708	2,988
DK	29,388	29,388	39,588	39,588	36,228
EE	1,344	1,344	1,680	1,680	1,020
EL	2,224	2,224	3,296	3,296	2,880
ES	3,852	3,852	3,936	3,936	3,852
FI	3,432	3,432	4,716	4,716	4,272
FR	6,792	6,792	6,792	6,792	6,792
HU	115,332	115,332	164,388	164,388	164,388
IE	6,096	6,096	6,096	6,096	6,096
IT	4,321	4,321	5,909	5,909	5,177
LT	0	0	0	0	0
LU	5,016	5,016	7,848	6,768	5,856
LV	300	300	300	300	300
NL	2,748	2,748	3,612	3,612	3,528
PL	4,224	4,224	5,280	5,280	5,280
PT	336	336	336	336	336
RO	1,140	1,140	1,140	1,140	1,140
SE	38,640	38,640	63,396	63,396	50,952
SI	1,054	1,531	2,160	1,828	1,531
SK	432	432	444	444	444
UK	2,556	2,556	2,784	2,784	2,700

Source: CSB-MIPI 2012

Table a1.5 Median yearly housing cost for all simulated hypothetical households, assumption B, 2012

	Housing cost assumption B				
	Family type A	Family type B	Family type C	Family type D	Family type E
AT	4,116	4,116	6,588	5,532	4,608
BE	4,944	4,944	6,048	6,048	6,048
BG	612	612	612	612	612
CZ	66,228	66,228	73,584	73,584	80,940
DE	3,468	3,468	5,568	5,568	4,488
DK	44,088	44,088	59,388	59,388	54,336
EE	2,028	2,028	2,520	2,520	1,524
EL	3,336	3,336	4,944	4,944	4,320
ES	5,784	5,784	5,904	5,904	5,784
FI	5,148	5,148	7,080	7,080	6,408
FR	4,944	4,944	5,316	5,316	5,064
HU	173,004	173,004	246,576	246,576	246,576
IE	9,144	9,144	9,144	9,144	9,144
IT	6,482	6,482	8,863	8,863	7,765
LT	0	0	0	0	0
LU	7,524	7,524	10,152	10,152	8,772
LV	456	456	456	456	456
NL	4,116	4,116	5,424	5,424	5,292
PL	4,728	4,728	4,728	4,728	4,728
PT	504	504	504	504	504
RO	1,716	1,716	1,716	1,716	1,716
SE	57,948	57,948	95,100	95,100	76,428
SI	1,644	1,644	2,460	2,460	2,460
SK	660	660	672	672	672
UK	3,840	3,840	4,164	4,164	4,056

Source: CSB-MIPI 2012

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InGRID

Inclusive Growth Research Infrastructure Diffusion

Referring to the EU2020-ambition of Inclusive Growth, the general objectives of InGRID – Inclusive Growth Research Infrastructure Diffusion – are to integrate and to innovate existing, but distributed European social sciences research infrastructures on ‘Poverty and Living Conditions’ and ‘Working Conditions and Vulnerability’ by providing transnational data access, organising mutual knowledge exchange activities and improving methods and tools for comparative research. This integration will provide the related European scientific community with new and better opportunities to fulfil its key role in the development of evidence-based European policies for Inclusive Growth. In this regard specific attention is paid to a better measurement of related state policies, to high-performance statistical quality management, and to dissemination/outreach activities with the broader stakeholder community-of-interest, including European politics, civil society and statistical system.

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More detailed information is available on the website: www.inclusivegrowth.be

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