

# **EUROMOD**

## **COUNTRY REPORT**



# **ROMANIA (RO)**

## **2011-2014**

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EUROMOD is a tax-benefit microsimulation model for the European Union (EU) that enables researchers and policy analysts to calculate, in a comparable manner, the effects of taxes and benefits on household incomes and work incentives for the population of each country and for the EU as a whole.

EUROMOD has been enlarged to cover 28 Member States and is updated to recent policy systems using data from the European Union Statistics on Income and Living Conditions (EU-SILC) as the input database, supported by DG-EMPL of the European Commission.

This report documents the work done in one annual update for Romania. This work was carried out by the EUROMOD core developer team, based mainly in ISER at the University of Essex, in collaboration with a national team.

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The results presented in this report are derived using EUROMOD version G3.0. EUROMOD is continually being improved and the results presented here may not match those that would be obtained with later versions of EUROMOD.

For more information, see: <https://www.euromod.ac.uk>

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This programme is managed by the Directorate-General for Employment, Social Affairs and Inclusion of the European Commission. It was established to finally support the implementation of the objectives of the European Union in the employment and social affairs area, as set out in the Social Agenda, and thereby contribute to the achievement of the Lisbon Strategy goals in these fields.

The seven-year Programme targets all stakeholders who can help shape the development of appropriate and effective employment and social legislation and policies, across the EU-28, EFTA-EEA and EU candidate and pre-candidate countries.

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The information contained in this publication does not necessarily reflect the position or opinion of the European Commission.

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## 1. BASIC INFORMATION

### 1.1 Basic information about the tax-benefit system

- The tax-benefit system is largely a unified, national system.
- In Romania the fiscal year coincides with the calendar year (1<sup>st</sup> of January – 31<sup>st</sup> of December).
- In June 2011 the statutory retirement age was 59 years for women and 64 years for men.
- The minimum school leaving age is 16 (compulsory education in Romania consists of 10 school years – lower secondary and two years of upper secondary education); the child is dependent until the age of 18 or until the age of 26 when in education and not married.
- According to the law, a lone parent is a person who is unmarried, widower, divorced or has a spouse declared missing by court order that lives together with dependent children (own, adopted, put into foster care or in tutorship or curatorship).
- The income tax system is an individual system, with spouses being assessed independently.
- Income is taxed by income source. Some income sources are exempted from personal income tax: income from social assistance and social insurance benefits except for pensions and temporary work incapacity benefit. Romania has a flat income tax of 16% both for individuals and companies. An exception from the tax rate of 16% was set in the case of income from gambling which is taxed with a 25% rate in 2011 and 2012.
- Some income categories from independent activities are taxed at source - a share of 10% of the gross income is paid. This is considered anticipated tax payment. At the end of the financial year the anticipated payment is compared to the real duty (16% of net income) and compensations are made in favour of the taxpayer or the state budget. Starting with the 1<sup>st</sup> of January 2012 these incomes can be taxed at source as a share of 10% of the gross income paid minus the mandatory social contributions retained at sources or the tax payer can choose to pay 16% of the gross income, as “final income tax”.
- There are no statutory indexing regimes for taxes or benefits, except for pensions. The value of the pension point is annually indexed with a weighted average of annual inflation and real growth rate of the average gross wage. The rest of the benefits are indexed through Government Decisions.
- For most means tested benefits the monthly income of the family is assessed. In this sense the term *family* designates the husband and wife or husband, wife and their unmarried children, who share the domicile or residence in the identity cards and manage their resources together in the household. In determining the net monthly income of the family all the incomes earned by all members are taken into account, including those from the state social insurance rights, unemployment insurance, legal liabilities for dependant persons, indemnities, allowances and benefits with permanent character and other claims. In the case of certain benefits the potential income obtained through the exploitation of certain goods that are not considered to be basic necessity goods is also considered.

### 1.2 Social Benefits

#### 1.2.1 Pensions

Romania has a three pillar based pension system:

**1<sup>st</sup> pillar:** public pay-as-you-go scheme: contributions are compulsory for employers, employees, and self-employed; the total contribution rate differs depending on working conditions.

**2<sup>nd</sup> pillar:** mandatory private contributions; compulsory for employed individuals under 35 years and voluntary for individuals aged between 36 and 45 years (in 2008, when the 2<sup>nd</sup> pillar was introduced); contribution rate: 2% of gross wage (carved down from the public social insurance contribution rate).

**3<sup>rd</sup> pillar:** voluntary contributions; the contribution rate should not exceed 15% of individual disposable income.

In the public pillar (*Law no. 19/2000 on the public pension system and other social insurance rights*), the benefit is calculated based on the pension point; one pension point is equivalent to 762,1 Lei (2013). The entire contribution record of the insured person is taken into account.

### **Old-age pension (Pensia pentru limită de vârstă)**

Retirement age: 65 years for men and 63 years for women (to be reached gradually in 2030, according to Law no. 263/2010). A minimum length of the contribution career is required. The statutory retirement age and the required length of the contribution career depend on working conditions. Working conditions, as defined by *Law 19/2000* are: normal, unusual and special. The unusual working conditions are those that can permanently affect in certain periods the working capacity of the insured person because of the high risk of exposure to harmful conditions; the special working conditions are considered: mining; exploring, exploitation and manufacturing of nuclear raw materials for the 1<sup>st</sup> and 2<sup>nd</sup> degree exposure to radiations, civil aviation, certain artistic activities.

According to Law no. 263/2010 if the full length of the contribution career is fulfilled totally or partly in unusual working condition or in special working conditions, the statutory retirement age can be reduced with up to between 8 and 20 years depending on the length of the contributory history in unusual/special conditions and what the unusual/special conditions are.

### **Early retirement pension/ early partial retirement pension (Pensia anticipată/anticipată parțial)**

Age requirements: 5 years or less until retirement age.

Contribution career: full contribution career or full contribution career exceeded with no more than 8 years for early partial retirement pension/ full contribution career exceeded with at least 8 years for early retirement pension.

The pension rights are calculated as in the case of old-age pensions; for early partial retirement pension, the pension is reduced according to the reduction of the length of the contribution period.

### **Survivors' pension (Pensia de urmaș)**

Eligibility: Surviving children or spouse of a pensioner or a person who was entitled to a pension in the public pillar. Children are eligible if younger than 16 or 26 years if attending school. The spouse is eligible for survivors' pension at standard statutory retirement age if she has been married for at least 15 years to the deceased. If the marriage lasted less than 15 years, but more than 10 years, the pension rights are diminished by 0.5% per month and 6% per year. If the spouse has 1<sup>st</sup> or 2<sup>nd</sup> degree invalidity, he/she has the right to survivors' pension if the marriage lasted for at least one year. The length of the marriage period is not an issue if the death is a result of work accidents or professional disease, if the spouse does not earn income from professional activities or their amount is less than 35% of the average gross wage.

The amount of the benefit is differentiated according to the number of survivors: 100% of the entitlement for three or more, 75% for two and 50% for one survivor.

### **Invalidity pension (Pensia de invaliditate)**

An employee is eligible for an invalidity pension in the case of a total or at least 50% loss of his working capacity as a consequence of a work accident, professional disease or any other kind of accident and disease not related to work. According to the degree of loss in work capacity and the work place requirements, the invalidity pension can be of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> degree.

The amount of the invalidity pension is calculated by allotting a potential contribution period as the difference between the length of the statutory full contribution period and the length of effective contribution period until the moment the invalidity occurred.

The 1<sup>st</sup> degree invalidity pensioners are eligible for a monthly allowance to pay for an attendant, in the amount of 80% of the value of a pension point.

### 1.2.2 Unemployment benefit (Indemnizația de șomaj)

Basic legislation applicable to the unemployment benefit: *Law no. 76/2002 regarding the unemployment insurance system and employment stimulation*, amended and supplemented and Government Decision no. 174/2002 approving the Methodological Norms for the enforcement of this law.

A person is defined as unemployed if over 16 years of age, not retired, not working and available to start work.

The GEO no. 126/2008 published in the Official Monitor at the 14<sup>th</sup> of October 2008 made a first step in eliminating the connection between the unemployment benefits and the level of the minimum guaranteed wage. Thus the income obtained from legal activities for those that apply for unemployment benefits must be lower than the value of a reference social indicator in force. This reference social indicator in force is a quantum expressed in RON used in assessing the monetary social benefits. The quantum of the reference social indicator was established for 500 RON and can be changed through government decision according to consumer price index. Between 2008 and 2012 the value of this indicator remained unchanged.

The Law no. 118/2010 diminishes the quantum of the unemployment benefit with 15%, while the policy remains unchanged, thus the unemployed receives 85% of their entitlement.

### 1.2.3 Health insurance benefits

Basic Legislation: GEO no. 158/2005 regarding medical leave and health insurance allowances and Law no. 95/2006 on health reform, Title VIII. Health insurance

**The leave and indemnity for temporary work incapacity caused by regular diseases or accidents not connected to work (Concediul și indemnizația pentru incapacitate temporară de muncă cauzată de boli obișnuite sau de accidente în afara muncii)** is offered for a maximum of 183 days in a period of one year. In case of special diseases, the indemnity is offered for a longer period, up to one year and six months in a period of two years.

The gross monthly quantum of this indemnity is 75% of the calculation base, determined as the average of monthly income for six months out of the 12 months that represent the contribution period. In case of special diseases such as AIDS, tuberculosis, cancer and so on the quantum is 100% of the calculation base. The insured persons are entitled to leave and indemnity for temporary work incapacity without a contribution period in case of medical-surgical emergencies, tuberculosis, certain contagious diseases, cancer or AIDS.

**The indemnities for the prevention of diseases and recovery of work capacity (Concedii medicale și indemnizații pentru prevenirea îmbolnăvirilor și recuperarea capacității de muncă, exclusiv pentru situațiile rezultate ca urmare a unor accidente de muncă sau boli profesionale)** are the indemnity for reducing the working time by a quarter of the normal duration and the quarantine indemnity.

The indemnity for reducing the working time is offered for a maximum of 90 days in a period of 12 working months and its quantum is equal to the difference between the calculation base previously mentioned and the gross income of the employee working with diminished working time, without exceeding 25% of the calculation base.

The quarantine indemnity is offered to insured people that cannot continue their activity because they suffer from contagious diseases. Its quantum is 75% of the above mentioned calculation base.

**Medical leave and maternity allowance (Concedii medicale și indemnizații pentru maternitate)**

Insured women are entitled to receive medical leave for pregnancy and confinement for a period of 126 days and during this period they receive maternity allowance. Pregnancy leave is granted for a period of 63 days before giving birth, while confinement leave is granted for a period of 63 days after giving birth. The two types of leaves can compensate each other, according to the medical recommendation, but the minimum duration of confinement leave is of 42 days. Insured women that are entitled to disability benefits may receive, on request, a medical leave for pregnancy, starting with the 6<sup>th</sup> month of pregnancy. The gross monthly amount of maternity allowance is 85% of the calculation base. This indemnity is financed entirely from the budget of the National Fund of Health Insurance.

**The leave and indemnity for caring for an ill child (Concedii medicale și indemnizații pentru îngrijirea copilului bolnav)**

Insured persons benefit of leave and indemnity for caring for children up to the age of 7 or in case of children with disabilities up to the age of 18. The maximum duration for this indemnity is 45 days per year for one child with some exceptions, in case of certain diseases, when this duration can be extended. The quantum is 85% of the calculation base.

**The leave and indemnity of maternal risk (Concedii medicale și indemnizații de risc maternal)**

This indemnity is offered without requirement of a minimum contribution period and its amount represents 75% of the calculation base (average monthly income for the last 10 months prior to the solicitation, based on which the social insurance contribution was paid).

**1.2.4 Non contributory benefits**

**State allowance for children (Alocația de stat pentru copii)** is a universal right granted monthly to families with children (up to the age of 18 or above that age when attending secondary or vocational education).

Starting with the 1<sup>st</sup> of January 2012 the quantum of the state allowance is established based on a reference social indicator (ISR).

**State Support Allowance for families with children (Alocația pentru susținerea familiei)** is a means tested benefit granted monthly to support poor families with children (up to the age of 18). The income threshold depends on the number of persons in the family. It was introduced by the Law no. 277 / 2010 that came into effect starting with the 1<sup>st</sup> of January 2011 and has substituted the Complementary family allowance (Alocația familială complementară) and the Support allowance for mono-parental family (Alocația de susținere pentru familia monoparentală).

**Allowance for family placement (Alocația de plasament familial)** is given to children up to the age of 18 or in case of those included in the educational system, throughout their studies, but without exceeding the age of 26. It is targeted towards children in foster care, children put under guardianship, dependent children in the process of adoption, children given to maternal assistants. Children with disabilities benefit from this allowance increased by 50%.

**Indemnity for child raising (Indemnizația pentru creșterea copilului)** is created as a replacement income for persons on leave to care for young children. The benefit is awarded until the child reaches the age of 2 or 3 (in case of disabled children). The benefit is contributory and intended to provide an income source for parents unable to work due to child-care responsibilities.

**Incentive for child raising (Stimulentul lunar)** is an incentive to return to work offered to a person who normally is providing care for a young child and would have benefited from the Indemnity for child raising. It can be received, optionally, by any of the child's natural parents, or by the person who was entrusted with the child in view of adoption, the person that adopted the child, the person that has the child in foster care or in emergency foster care or the person

that was appointed guardian of the child. The incentive is received by the persons that were entitled to receive the Indemnity for child raising and earn professional income subject to taxation, under Law no. 571/2003 regarding the Fiscal Code, with subsequent amendments. It cannot be received at the same time with the Indemnity for child raising.

**Emergency benefits (Ajutorul de urgență)** are means tested benefits designed to support families that face justifiable emergency situations or emergency circumstances due to natural disasters, fires, accidents, and other special situations established by law. The benefit is given both to Romanian citizens and to stateless persons and foreign citizens, with Romanian residence. The amount is established based on the assessment of the situation through social inquiry carried out by specialized personnel from the Territorial Directorates of Labour and Social Protection.

**Financial aid (Ajutorul financiar)** is a means tested benefit given to families and persons that face extreme difficulties due to health problems or other justifiable causes. The benefit is given both to Romanian citizens and to stateless persons and foreign citizens, with Romanian residence. The amount is established based on the assessment of the situation through social inquiry carried out by specialized personnel from the Territorial Directorates of Labour and Social Protection.

**Home heating aid (Ajutorul pentru încălzirea locuinței)** is given as support to poor families who cannot afford the expenses of home heating during the cold season. The aid is given to spouses and other persons - Romanian citizens, stateless persons and foreign citizens with residence in Romania - that share the same residence, are subscribed in the building book and are taken into consideration in calculating the dwelling maintenance costs, whether or not family relations exist. The benefit is given monthly during the cold season, between November 1<sup>st</sup> and March 31<sup>st</sup> next year. It is means tested.

The conditions and the amounts are differentiated according to the type of heating – energy provided in the centralized system, natural gas or wood, coal and oil fuel.

In case the heating is provided in the centralized system, the quantum of the aid consists of a percentage of the amount that must be paid by the household. The percentage that will be compensated is established according to the average monthly net income per family member.

**Benefits for refugees (Ajutorul rambursabil pentru refugiați)** are granted to stateless persons and foreign citizens with the status of refugee. The benefit is paid monthly for 6 months and in exceptional cases the aid can be obtained for another 3 months.

**The aid for the purchase of individual home heating or automated burning systems (Ajutorul bănesc pentru achiziționarea de centrale termice individuale sau arzătoare automatizate)** is created to support the modernisation of the heating systems used by poor families. The beneficiaries are families or single persons with low incomes that use natural gas for the heating of their homes. The beneficiaries must have the status of individual consumers, assessed by a contract with a supplier of natural gas. This benefit is means tested as the income on family member must be less than the statutory gross minimum wage.

**Monthly allowance for the adult with severe visual disability, designated for the payment of the attendant (Indemnizația lunară pentru adultul cu handicap vizual grav, destinată plății însoțitorului)** is granted to Romanian citizens, stateless persons and foreign citizens with residence in Romania, monthly, in a quantum that is equivalent to the net salary of the junior social worker with secondary education from the budgetary sector.

The beneficiaries are the adults with severe visual disabilities who have been medically certified to have severe visual impairments, irrespective of their incomes. The benefit is not means tested.

**Monthly allowance for adults with severe and marked disabilities (Indemnizația lunară pentru adulții cu handicap grav sau accentuat)**. Beneficiaries are adults who have been medically certified to have severe or marked disabilities, irrespective of their income. It is granted to Romanian citizens, stateless persons and foreign citizens with residence in Romania.

**Complementary personal budget for people with disabilities (Bugetul personal complementar pentru persoanele cu dizabilități)**

The beneficiaries are adults or children with disabilities established by medical certificates, regardless of their income. It is granted to Romanian citizens, stateless persons and foreign citizens with residence in Romania.

**The guaranteed minimum income (Venitul minim garantat)**

Poor families are granted social assistance in an amount determined as the difference between the levels established by the law as guaranteed minimum income and the net monthly income of the family or single person.

The income of the family is taken into consideration in assessing the right to this benefit. The means are tested through social inquiry. Both income and assets may be included in the means-test.

**Aid for partial covering of funeral expenses (Ajutorul de înmormântare)** is given to families and single persons that receive social aid according to the provisions of the law regarding the guaranteed minimum income (Law no. 416/2001). The funeral expenses of persons in this category are paid from the funds allocated for the payment of social aid.

**Monthly food allowance for children and adults infected with HIV or AIDS (Indemnizația lunară pentru copiii și adulții infectați cu HIV sau bolnavi de SIDA)**

It is a benefit granted to children or adults of Romanian nationality, with Romanian residence, infected with HIV or AIDS, regardless of their income.

**Contribution for health insurance for the beneficiaries of the indemnity for child raising (Contribuții pentru asigurările de sănătate aferente indemnizației pentru creșterea copilului)**

It is targeted towards persons that receive the indemnity for child raising.

The territorial directions of labour and social protection are required to send monthly, to the Territorial Health Insurance Houses, the individual health contributions and the names of the beneficiaries. It is not a means tested benefit.

**The nursery voucher (Tichet de creșă)** is designed to help families with children to cover child care expenses. It is given to employees from state and private companies who are not eligible for child raising leave and allowance. The nursery vouchers can only be used to pay for nursery services. Nursery vouchers are given upon request to a parent or to a tutor that has the child entrusted. Starting with May 2012, the value of the nursery voucher was set to 400 lei.

**Financial aid to purchase computers (Euro 200 Program) (Ajutor financiar în vederea achiziționării de calculatoare)** is a benefit targeted towards increasing the access of children from poor families to information and communication technologies. Beneficiaries are families with children (below the age of 26) that study in accredited public or private educational institutions, if the gross monthly income per family member is below a certain threshold established by law. The threshold is indexed annually, by Government decision, based on consumer prices index.

The family receives financial assistance to purchase only one new personal computer, irrespective on the number of children in education.

**The financial support for students in the national social protection program “Money for highschool” (Sprijin financiar acordat elevilor din cadrul programului național de protecție socială “bani de liceu”)** is designed to improve the access to education for children from poor families.

Beneficiaries are children who are enrolled in day education, in high schools or vocational schools and are dependent on families whose gross monthly income per family member in the last three months preceding the application is below a certain threshold. As the budget for this benefit is limited, additional criteria may be taken into account for families with the same levels of income.

The financial support is received monthly during the academic year and may be terminated in case of unjustifiable absenteeism or disciplinary issues.

The beneficiaries of the national programme of social protection “money for school” cannot receive in the same time the social grant for students.

**Social grants (Bursele de ajutor social)** are given to children attending classes in pre-university and university education, depending on the financial situation of the family or in other cases established by law.

**Scholarships for tuition, scholarships for further education, adult literacy grants, according to Law 116/2002**

**Scholarships for tuition (Bursa de școlarizare)** can be received by people of school age who attend compulsory education and belong to families with two or more dependent children that are entitled to social aid under the Law no 416/2001 regarding the guaranteed minimum income.

**Scholarships for further education (Bursa pentru continuarea studiilor)** are granted to compulsory education graduates who continue their studies in pre-university schools and in higher education institutions and who belong to families with two or more dependent children that are entitled to social aid under the Law no 416/2001 regarding the guaranteed minimum income.

**Literacy grants (Bursa de alfabetizare)** are given to adults who participate in regional literacy programs. The beneficiaries must be older than 14 and in one of the following situations: they have never attended compulsory education courses; they haven't completed primary education or have attended primary education, but have not acquired basic knowledge.

The granting of these scholarships is conditioned on class attendance and academic results. The levels of the tuition scholarships and scholarship for further education are set annually by the Government and the amounts are paid from the budget of the Ministry of Education or local budgets.

The level of the literacy scholarship is set by decisions of local authorities.

**Guaranteed minimum social pension/ Social allowance for pensioners (Pensia socială minimă garantată)**

This social benefit has entered into force starting with April 1<sup>st</sup>, 2009.

Beneficiaries: public pension system retirees with residence in Romania, if the pension amount, due or in payment is less than the guaranteed minimum social pension.

The quantum is assessed as the difference between the guaranteed minimum social pension level and the pension amount due or in payment, according to the Law no. 19/2000 on the public pension system and other social insurance rights, combined with any other duties paid under special laws. Starting with 2010, the guaranteed minimum social pension level is set annually by the state budget law and can only be increased by correcting the state budget in relation to the evolution of macroeconomic indicators and financial resources.

### 1.3 Social contributions

The Romanian social contribution system consists of six types of social contributions, levied on employers and/or employees, self-employed or on voluntary insurance contracts. These are the following: social insurance contribution, unemployment insurance contribution, health insurance contribution, medical leave and indemnities health insurance contribution, insurance contribution for work accidents and professional disease, contribution for the salary payment guarantee fund.

**Social insurance contributions (Contribuții în cadrul bugetului asigurărilor sociale de stat)** are paid on a mandatory basis by employers, employees and self-employed and also by the National Employment Agency on behalf of the unemployed. The categories of individuals who are mandatorily insured in the public social insurance system are: employees, self-employed and unemployed.

**Unemployment insurance contribution (Contribuția în cadrul bugetului asigurărilor pentru șomaj)**

In the unemployment insurance system both employees and persons who hold elective positions or other persons who earn income on the basis of a labour agreement (no insurance is due for

persons working under a civil agreement, although they may insure voluntarily) are mandatorily insured, according to the *Law no. 76/2002 on unemployment*. On a voluntary basis, the self-employed can also become insured in the unemployment insurance system. From July 1<sup>st</sup>, 2010 the unemployment insurance contribution is compulsory for self-employed for income received as a result of intellectual property rights.

The insured are entitled to unemployment benefit if the risk occurs.

The level of the unemployment contribution rate is set by the *Law on Social Insurance Budget* on an annual basis. The unemployment insurance contribution rate has different levels for employers, employees and the voluntarily insured. The base for the calculation of the unemployment insurance contribution is the total gross wages for employers, the gross wage for employees and the insured sum for voluntary insurance contracts (also self-employed), but not less than the statutory minimum wage. Income from intellectual property rights for self-employed who earn this type of income is not subject to minimum and maximum thresholds. The contribution is collected in the unemployment insurance budget.

### **Health insurance contribution (Contribuția de asigurări sociale de sănătate)**

All Romanian citizens who live in Romania and foreign citizens in certain conditions are insured in the sense of the *Law no. 95/2006 on the reform of the health system* if they pay the health insurance contribution. The health insurance contract is individually signed either directly or through an employer, for employees. Some categories are insured without paying contributions (see section 2.5.4). Similarly, some categories benefit from contributions being paid on their behalf (see section 2.5.4 for details). The contribution is collected to the health insurance budget.

**Health insurance contribution for medical leave and indemnities (Contribuția pentru concedii și indemnizații de asigurări sociale de sănătate)** is paid by employers and self-employed. The contribution base is the total gross wages for employers and the insured income for self-employed (cannot be higher than the value of 12 minimum guaranteed wages). The contribution is collected in the health insurance budget and its purpose is to cover the payment of medical leaves and indemnities.

**Work accidents and professional disease insurance contribution (Contribuția de asigurări pentru accidente de muncă și boli profesionale)** is paid by all employers and self-employed. The rate is differentiated according to the classification of economic activities (NACE). The contribution base is the total gross wages at employer level (the sum of all employees' gross wages) and the insured income for self-employed (cannot be lower than the national minimum gross wage). The contribution is collected in the social insurance budget.

**Contribution for the salary payment guarantee fund (Contribuția la fondul de garantare pentru plata creanțelor salariale)** is paid by all employers, except for public institutions. Its purpose is to guarantee the right to salary to employees in the case the company is legally declared to be insolvent. The contributory base is the total gross wages at employer level (the sum of all employees' gross wages). The contribution is collected in the salary payment guarantee fund.

## **1.4 Taxes**

The Romanian tax system has undergone some major changes beginning in 2000, when a tax reform made the Romanian fiscal regime more simple and uniform. In 2004, the new Fiscal Code entered into force and brought important exemptions and facilities, but in the upcoming years the changes that took place in the Fiscal Code, except for the introduction of the flat income tax of 16% for individuals and companies, were mainly in favour of higher taxation. The most important direct taxes that are levied through the Romanian tax system are: income tax, real estate taxes, while the indirect taxes are: value added tax (VAT) and excise taxes.

### **1.4.1 Direct taxes**

#### **Personal Income Tax (Impozitul pe venit)**

The personal income tax is paid by individuals as a flat rate of 16% levied on the income tax base.

The personal income tax is paid by the Romanian residents, but also non-residents who are involved either in a dependent activity in Romania or in an independent activity through a permanent headquarters on the Romanian territory.

### **Real Estate Taxes (Impozite și taxe pe proprietate)**

Real estate taxes consist of a tax on buildings and a tax on land. These taxes are collected by municipalities.

*Building tax* is levied on all buildings in Romania, except for state-owned buildings, buildings owned by municipalities and by public institutions, churches, historical monuments, schools, public hospitals. Other buildings that are exempted from building tax are buildings used as hothouses, hotbeds, silos or buildings owned by foundations or associations and which are used for social or humanitarian activities.

For individuals, the building tax is calculated as a 0.1% of the taxable value of the building, per year. The calculation of the taxable value takes into account three elements: the construction material used for the building, building facilities (water installation, sewage, electrical and heating installation), geographical elements (the rank of the municipality and the location of the building within the municipality). The taxable value thus calculated is then reduced by a percent corresponding to the age of the building: 20% for building older than 50 years, 10% for a building which was built between 30 and 50 years ago.

If the building is used for dwelling and has more than 150m<sup>2</sup>, the taxable value is multiplied by 5% for every 50m<sup>2</sup> or fraction thereof which exceeds the above mentioned threshold.

Individuals who own more than one building are supplementary taxed. The increment is applied to the taxable value of the second (65%), third (150%) or fourth (300%) building.

The building tax is paid yearly in two stages and if paid in advance, the tax is reduced by 10%.

*Land tax* is levied on all land in Romania, except for land own by churches, cemeteries, schools, universities, hospitals or other public institutions, state bodies or municipalities if not used for commercial purpose. Land roads, lands which are not suited for agricultural or forestry activities, land used for fighting against floods, used for water sources or underground exploitation purposes, land connected to hydro technical systems, navigation roads, and harbour infrastructure are also exempted from the tax.

The land tax is paid by the owner and calculated on the basis of area, municipality rank and location within the municipality and usage of the land.

The land tax is paid yearly in two stages and if paid in advance, the tax is reduced by 10%.

*Vehicle tax* is paid for all vehicles registered in Romania, except for cars and motorcycles owned by disabled persons and adapted to their disability, cars owned by public institutions and conveyances used for public transportation.

The vehicle tax is paid by the owner and differs by vehicle type and cylindrical capacity. The tax is paid yearly to the local budgets in two stages and if paid in advance, the tax is reduced by 10%.

### **1.4.2 Indirect taxes**

#### **Value Added Tax(VAT) (Taxa pe valoare adăugată)**

The VAT is levied on the supply of goods and services provided on the Romanian territory by a VAT taxpayer as a result of an economic activity and the imported goods from non-EU countries. VAT is also levied on the import of new vehicles and goods which are subject to excise tax from EU countries.

The taxpayer is a person who carries out, independently and irrespective of location, economic activities, no matter what the purpose and result of these activities.

The tax base is the price for the supply of goods and services and the custom value for imported goods.

For policy year 2011, the standard VAT rate is 24% and is applied on the tax base. A reduced 9% VAT rate is applied on medicines, medical prostheses, orthopaedic products, books, newspapers, magazines, and accommodation in hotels or similar, access to cultural and historical events and institutions. A 5% VAT rate was supplementary introduced for the supply of houses as part of the government's social policy.

**Excise tax (Accize)**

In Romania the excise taxes are applied on the following products: alcohol and alcoholic beverages, processed tobacco, energy products and electricity.

## 2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

### 2.1 Scope of simulation

Table 2.1 presents the Romanian benefits system, underlining the manner in which various benefit instruments are treated in EUROMOD, while Table 2.2 presents the tax and contribution system in Romania explaining their simulation in EUROMOD.

Table 2.1 Simulation of benefits in EUROMOD

	Variable name(s)	Treatment in EUROMOD				Why not fully simulated?
		2011	2012	2013	2014	
Old age benefits (Old age pension, Early retirement pension)	poa	I	I	I	I	No data on contribution record
Survivors' pension	psu	I	I	I	I	No data on contribution record
Invalidity pension	pdi00	I	I	I	I	No data on contribution record
Unemployment benefit	bun_s	PS	PS	PS	PS	No data on the contribution history needed to estimate the bonus benefit, no simulation of the benefit for graduates (non-contributory)
Sickness benefit (Indemnity for temporary work incapacity caused, Indemnity for maternal risk)	bhl	I	I	I	I	No data on contribution history and sickness occurrence
Maternity benefit (Maternity allowance)	bma	I	I	I	I	No data on contribution history and sickness occurrence
Universal child benefit	bchnm_s_s	S	S	S	S	
Means tested family benefits	bchmt_s	S	S	S	S	
Child raising allowance	bccnw_s	S	S	S	S	No data on contribution record for the previous year to child birth, in 2009 and 2010 the simulation of the amount is based on the imputed wage
Child raising incentive	bccrw_s	S	S	S	S	
Marriage grant (Financial aids for family set up)	-	E	E	E	E	No detailed information in micro-data, no information on the family set up event occurrence
Allowance for newborn children and the outfit for newborn children	bchba_s	S	S	S	S	
The leave and indemnity for the caring of the ill child	-	E	E	E	E	No information in micro-data, no information on child disability or illness
Heating aid (Means tested heating benefit)	bhoen_s	S	S	S	S	Asset test not fully implemented

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Financial benefits	-	E	E	E	E	Discretionary benefit; No information in micro-data
Emergency benefits	-	E	E	E	E	Discretionary benefit; No information in micro-data
Benefits for refugees	-	E	E	E	E	No information in micro-data
The aid for the purchase of automated burning	-	E	E	E	E	No information in micro-data on purchases
Disability benefit (Monthly allowance for adults with severe and marked disabilities, Complementary personal budget for adults with disabilities)	bdi	I	I	I	I	No information on the degree of disability
Monthly allowance for the adult with severe visual disability, designated for the payment of the attendant	-	E	E	E	E	No information on the type and degree of disability
Social assistance (Guaranteed minimum income)	bsa_s	S	S	S	S	Asset test not fully implemented; work test not implemented
Aid for partial covering of funeral expenses	-	E	E	E	E	No information in micro-data, no information on event occurrence
Monthly allowance of food for children and adults infected with HIV or AIDS	-	E	E	E	E	No information in micro-data
The nursery voucher	-	E	E	E	E	No information in micro-data
Financial aid to purchase computers (Euro 200 Program)	-	E	E	E	E	No information in micro-data
Money for High -School (Means tested educational allowance)	bched_s	S	S	S	S	Asset test not fully implemented, sanctions due to absenteeism from school not simulated
Scholarships	-	E	E	E	E	No information in micro-data
Minimum social pension	bsaoa_s	S	S	S	S	
Severance payments	yunsv	I	I	I	I	No detailed information in the dataset, no information on the occurrence of the firing event

**Notes:** “-”: policy did not exist in that year; “E”: *excluded* from the model as it is neither included in the micro-data nor simulated; “I”: *included* in the micro-data but not simulated; “PS” *partially simulated* as some of its relevant rules are not simulated; “S” *simulated* although some minor or very specific rules may not be simulated.

Table 2.2. Simulation of taxes and social contributions in EUROMOD

	Variable name(s)	Treatment in EUROMOD				Why not fully simulated?
		2011	2012	2013	2014	
Personal income tax	tin_s	S	S	S	S	
Real Estate Tax	-	E	E	E	E	No information in micro-data on real estate
Indirect taxes	-	E	E	E	E	No information on consumption in the micro-data
Employee Social Insurance Contributions	tscee_s	S	S	S	S	
Employer Social Insurance Contributions	tscer_s					
Benefit Recipients Social Insurance Contributions	tscbr_s	S	S	S	S	
Self Employed Social Insurance Contributions	tscse_s	S	S	S	S	
Health insurance contribution (active population and pensioners)	tschl_s	S	S	S	S	
Credited Health insurance contribution	tscchl_s	S	S	S	S	

**Notes:** “-” policy did not exist in that year; “E” policy is *excluded* from the model’s scope as it is neither included in the microdata nor simulated by EUROMOD; “PS” policy is *partially simulated* as some of its relevant rules are not simulated; “S” policy is *simulated* although some minor or very specific rules may not be simulated.

There are no significant structural changes regarding policy simulations during 2011- 2014.

## 2.2 Order of simulation and interdependencies

The following table shows the order in which the main elements of the Romanian tax and benefit system in 2011-2014 are simulated. As the Romanian system did not face significant structural changes within this period, we use one table to display policy simulations over the four years' span. The defined order shows that Romanian policy simulations start with the minimum wage. This choice is made in order to check minimum wage policy implementation for observed salaries first, as employment income is used in many following policies either explicitly or implicitly.

Then we simulate the contributions prior to simulating the personal income tax, as most of them are on the list of deductibles for purposes of personal income taxation. In order to maintain consistency we simulate the contributions together as a block, The Benefit Recipients Social Insurance Contributions (Credited social insurance contributions) are simulated after the Unemployment Benefit as they are also credited to unemployment benefit recipients.

After the personal income tax we simulate the non taxable benefits. The means tested social benefits that are granted considering a list of preceding incomes, are simulated as the last policies in the spine.

Table 2.3 EUROMOD Spine: order of simulation

Policy	2011	2012	2013	2014	Description of the instrument and main output
uaa_ro	on	on	on	on	DEF: Uprating by average adjustment
uprate_ro	on	on	on	on	DEF: Uprating factors
constDef_ro	on	on	on	on	DEF: Constants
ildef_ro	on	on	on	on	DEF: Income concepts
tundef_ro	on	on	on	on	DEF: Assessment units
yem_ro	off	off	off	off	SWITCH:Minimum Wage /yem (Salariul minim brut)
neg_ro	on	on	on	on	INC:Correction of self-employment income
tscee_ro	on	on	on	on	SIC: Employee Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)/ tscee_s
tscer_ro	on	on	on	on	SIC: Employer Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)/ tscer_s
bun_ro	on	on	on	on	BEN: Unemployment benefit (Ajutorul de somaj)/ bun_s
tscbr_ro	on	on	on	on	SIC: Benefit Recipients Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)/ tscbrpi_s
tscse_ro	on	on	on	on	SIC: Self-Employed Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)/ tscse_s
tschl_ro	on	on	on	on	SIC: Health insurance contributions (active population & pensioners) (Contributia de asigurari sociale de sanatate)/ tschl_s
bchnm_ro	on	on	on	on	BEN: Universal Child Benefit (Alocatia de stat pentru copii)/ bchnm_s
bccnw_ro	on	on	on	on	BEN: Child raising allowance

bccrw_ro	on	on	on	on	(Indemnizatia pentru cresterea copilului)/ bccnw_s BEN: Child raising incentive
tinta_ro	on	on	on	on	(Stimulentul lunar)/ bccrw_s TAX: Optimization for the allocation of the tax allowance/ temp_tin_ro
tin_ro	on	on	on	on	TAX: Personal Income Tax (Impozitul pe venit)/tintb_s
tca_ro	off	off	off	off	SWITCH: Adjustment for tax compliance for self-employment in agriculture/ rural areas
bchba_ro	off	off	off	off	BEN: Allowance for new born children and the outfit for the new born children (Alocatia pentru copiii nou-nascuti si trusoul pentru nou-nascuti)/ bchba_s
bsaoa_ro	on	on	on	on	BEN: Minimum social pension/ social allowance for pensioners (Pensia minima garantata)/ bsaoa_s
bched_ro	on	on	on	on	BEN: Means-tested educational allowance (Money for High-School) (Sprijin financiar acordat elevilor din cadrul programului national de protectie sociala 'Bani de liceu')/ bched_s
bsa_ro	on	on	on	on	BEN:Guaranteed min income (Venitul minim garantat)/ bsa_s
bta_ro	on	on	on	on	SWITCH:Adjust take up of the minimum guaranteed income to exclude households where the head is younger than 26/ bsa_s (Switched off in the baseline for all years)
tscchl_ro	on	on	on	on	SIC:Credited health insurance contributions + contributions of the inactive/tscchl_s
bchmt_ro	on	on	on	on	BEN: Means-tested family benefits (Alocatia familiala complementara si Alocatia de sustinere pentru familia monoparentala)/ bchmt_s
bhoen_ro	on	on	on	on	BEN: Means-tested heating benefit (Ajutorul pentru incalzirea locuintei)/ bhoen_s
output_std_ro	on	on	on	on	DEF: Standard output individual level
output_std_hh_ro	on	on	on	on	DEF: Standard output at household level

Source: EUROMOD G 3.0+

### 2.3 Policy switches

There are four policies in Romania that may be switched on or off. The first one is `uaa_ro` which by default is off. When switched on, non-simulated benefits (especially pensions) are updated by changes in the average rather than by using statutory indexation rules (the default). The second one is the minimum wage (`yem_ro`) and it is switched off in the baseline. It replaces employment income with the minimum hourly wage whenever employment income adjusted for hours and time in employment is less than the minimum. The next policy in the list of switches is `tca_ro`. It is switched on in the baseline for all years and it adjusts for tax compliance in the case of self-employed in agriculture by assuming that if a person is self-employed, works in agriculture, lives in a rural area and earns less than the average gross wage than he is evading taxes. Turning this policy off causes the simulations to assume full tax compliance. The last policy that may be switched is `bta_ro`. It is switched on in the baseline in all years. Its purpose is to adjust the calculation of the minimum guaranteed income by removing eligibility from heads of households that are under 26 years of age on the assumption that the majority of these are students.

## 2.4 Social benefits

### 2.4.1 Unemployment benefit (Ajutorul de șomaj) (bun\_ro)

- **Eligibility conditions**

The unit of analysis is the individual (tu\_individual\_ro).

**The unemployed** are eligible for receiving the unemployment benefit if they have a minimum contribution period of 12 months in the last 24 months preceding the date of benefit claiming and they have no employment/self-employment income or the income they obtain is below a threshold. This threshold was established at the level of 500 lei per month for policy years 2011 - 2014.

- **Income test**

There is no income test. However, the unemployed person should have no employment/self-employment income or the income she obtains from such activities should be below the set threshold..

- **Benefit amount**

The **amount** paid to the **unemployed** depends on the contributory record, as follows:

- a) 75% of statutory gross minimum guaranteed wage, for people with a contribution period of at least one year;
- b) the amount stipulated in point a) plus an amount calculated by applying a differentiated rate (according to the contribution period) on the gross average monthly salary during the last 12 months of contribution period.

Differentiated rates according to the eligibility period have the following values:

- a) 3% for those with a contribution period of at least 3 years;
- b) 5% for people with a contribution period of at least 5 years;
- c) 7% for people with a contribution period of at least 10 years;
- d) 10% for those with a contribution period of at least 20 years.

**The unemployment benefit** is granted to people **assimilated as unemployed** for a period of 6 months and it is a monthly fixed amount, which represents 50% of the statutory gross minimum guaranteed wage, and it is awarded to those assimilated as unemployed (graduates older than 16, persons ending military service unable to find employment) once per every form of education graduated.

Between 2011 and 2014 the unemployment benefit is set related to a reference social indicator with a value of 500 Lei, instead of the minimum guaranteed wage, thus the amount is:

- a) 75% of ISR, for people with a contribution period of at least one year;
- b) the amount stipulated in point a) plus an amount calculated by applying the differentiated rate on the gross average monthly salary for the last 12 months of contribution period.

The people assimilated as unemployed receive 50% of ISR.

The payment of unemployment benefits is financed by the unemployment insurance budget.

The Law no. 118/2010 diminishes the quantum of the unemployment benefit with 15%, while the policy remains unchanged, thus the unemployed receives 85% of their entitlement. In 2014, the level of the unemployment benefit is restored to the entire amount.

- **Duration**

Unemployment benefit is awarded to the **unemployed (I)**, for a period with a length depending on the contributory period, as follows:

- 6 months, for people with a contribution period of at least one year and for those assimilated as unemployed;
- 9 months, for people with a contribution period of at least 5 years;
- 12 months, for people with a contribution period of more than 10 years.

The people assimilated as unemployed receive it for 6 months.

**EUROMOD Notes:** No account is taken of part-time employment, all employment months are considered as full-time employment. Benefits for persons assimilated to the unemployed (i.e. graduates) are not simulated. Contribution history is imputed by assuming that the unemployed person worked the same amount of months during each year of the qualifying period, i.e. the number of months worked during the income reference period. Eligibility closely matches observed receipt in the micro data. To determine the amount of benefit and its duration, the contributory period taken into account is based on the individual’s entire work history.

#### 2.4.2 Universal child benefit (Alocația de stat pentru copii) (bchm\_ro)

- *Definitions*

The unit of analysis is the family (tu\_family\_ro). It is defined as consisting of the head, partner, own dependent children and loose dependent children. Are considered as dependent children individuals under the age of 18, or under the age of 26 if in education, not themselves parents and not married.

- *Eligibility conditions*

Entitled are children below the age of 18.

The benefit is also given to children older than 18, if the recipient is attending secondary education.

- *Income test*

The benefit is not income tested.

- *Benefit amount*

The benefit amount depends on the age and disability status of the child as follows:

	2011	2012	2013	2013	2014
Aged under 2 (or below 3 if disabled)	200 Lei	0.4 ISR	0.4 ISR	0.4 ISR	0.4 ISR
Aged 2 and above, not disabled	42 Lei	0.084 ISR	0.084 ISR	0.084 ISR	0.084 ISR
Aged 2 and above, disabled	84 Lei	0.168 ISR	0.168 ISR	0.168 ISR	0.168 ISR

Starting with the 1<sup>st</sup> of January 2012 the quantum of the state allowance is established based on a reference social indicator (ISR). The ISR level established for 2012-2014 is of 500 Lei.

**EUROMOD Notes:** No benefit is simulated for children who turn 18 during the income reference year. Increases in the amount of benefits awarded for disabled children are not simulated. The benefit is allocated to the mother, if she is present in the household.

#### 2.4.3 Child raising allowance (Indemnizația pentru creșterea copilului) (bccnw\_ro)

- *Definitions*

The unit of analysis consists of the head, partner, own dependent children and loose dependent children – (tu\_bcc\_ro). The dependent child is defined as a child aged under 2.

- **Eligibility conditions**

The benefit is awarded to a parent of a child under the age of 2 (or under the age of 3, if disabled) who does not work in order to care for the child. This benefit is granted for the first three children, either natural or adopted, entrusted in the process of adoption, in foster care or emergency foster care (except when the child is entrusted to a professional maternal assistant) or in guardianship.

The recipient must have been working the 12 months preceding the birth of the child.  
The parent must be not working while in receipt of the benefit.

- **Income test**

The benefit is not income tested.

- **Benefit amount**

2011	2012	2013	2014
Allowance received until the child reaches the age of 1: the amount is 75% of the average incomes for the last 12 months, but no less than 600 Lei and no more than 3400 Lei.	Allowance received until the child reaches the age of 1: the amount is 75% of the average incomes for the last 12 months, but no less than 1.2 ISR and no more than 6.8 ISR.	Allowance received until the child reaches the age of 1: the amount is 75% of the average incomes for the last 12 months, but no less than 1.2 ISR and no more than 6.8 ISR.	Allowance received until the child reaches the age of 1: the amount is 85% of the average incomes for the last 12 months, but no less than 1.2 ISR and no more than 6.8 ISR.
Allowance received until the child reaches the age of 2: the amount is 75% of the average incomes for the last 12 months, but no less than 600 Lei and no more than 1200 Lei.	Allowance received until the child reaches the age of 2: the amount is 75% of the average incomes for the last 12 months, but no less than 1.2 ISR and no more than 2.4 ISR.	Allowance received until the child reaches the age of 2: the amount is 75% of the average incomes for the last 12 months, but no less than 1.2 ISR and no more than 2.4 ISR.	Allowance received until the child reaches the age of 2: the amount is 85% of the average incomes for the last 12 months, but no less than 1.2 ISR and no more than 2.4 ISR.
	The quantum of the allowance is increasing with 1.2 ISR for children born of a pregnancy of twins, triplets or more	The quantum of the allowance is increasing with 1.2 ISR for children born of a pregnancy of twins, triplets or more.	The quantum of the allowance is increasing with 1.2 ISR for children born of a pregnancy of twins, triplets or more.

The eligibility rules and benefit amounts have changed beginning from 1<sup>st</sup> of January 2011. For persons benefiting of this indemnity for a child born before the 31<sup>st</sup> of December 2010, the amount was set to 75% of the average incomes for the last 12 months, but no less than 600 Lei and no more than 3400 Lei, and the indemnity could be received for a 2 years duration.

Persons benefiting of a leave for child raising for a child born after the 1<sup>st</sup> of January 2011 may choose to receive the indemnity for one or two years. In case they choose to receive the indemnity until the child reaches the age of 1, the amount will be 75% of the average incomes for the last 12 months, but no less than 600 Lei and no more than 3400 Lei. The parent can benefit of unpaid leave for raising the child between the ages of one and two.

If they choose to receive the indemnity until the child reaches the age of 2, the amount will be 75% of the average incomes for the last 12 months, but no less than 600 Lei and no more than 1200 Lei.

For parents of disabled children the indemnity (and leave) may be granted until the child reaches the age of 3 and the amount will be 75% of the average incomes for the last 12 months, but no less than 600 Lei and no more than 3400 Lei.

Starting with January 2012 the monthly Indemnity for child raising cannot be set to a value below the level of 1.2 ISR (a reference social indicator) or above 6.8 ISR. In 2012, 2013 and 2014 the ISR is 500 Lei.

**EUROMOD Notes:** The birth order of children is established taking into account only siblings present in the household. The benefit awarded for children aged between 2 and 3 and disabled is not simulated due to lack of information about the children’s disability status. The benefit is simulated for all 12 months of the income reference period in the case of children aged 0 and it is not simulated for children turning 2 during the income reference period. There is no information in the micro data relating to the activity status of the mother during the 12 months preceding birth. Instead, the condition relating to the contribution history of the parent is approximated by taking into account the duration of the entire work history, i.e. parents (mothers) who have worked for at least 12 months during their life are considered eligible. The increase in the amount of benefit for twins, triplets, etc. not simulated. Parents of 1 year olds eligible for the benefit are considered entitled (i.e. they have not exhausted their entitlement during the child’s first year). However, for benefit received on account of children aged below 1, we apply the higher level cap. The lower level cap is applied to benefits received on account of children aged between 1 and 2. The benefit is simulated to be 75% of the previous gross average monthly income. As this income is not observed in the data, it is imputed based on a wage equation. The benefit is allocated to the mother if she is present in the household (i.e. the mother is considered by default to be the claiming parent).

**2.4.4 Child raising incentive (Stimulentul lunar) (bccrw\_ro)**

- **Definitions**

The unit of analysis consists in head, partner, own dependent children and loose dependent children – (tu\_bcc\_ro). The dependent child is defined as a child under the age of 2.

- **Eligibility conditions**

The benefit is awarded to a parent entitled to receive the Child raising allowance that chooses to return to work. This benefit is granted for the first three children, either natural or adopted, entrusted in the process of adoption, in foster care or emergency foster care (except when the child is entrusted to a professional maternal assistant) or in guardianship.

The incentive is granted to persons entitled to receive the Indemnity for child raising until the child reaches the age of 1 or 2 (according to their chosen option) that return to work, thus earning professional income subject to taxation. If the child is disabled, the person entitled to receive the Indemnity for child rising that returns to work before the child reaches the age of 3, will receive the incentive, in the same amount.

The recipient must have been working the 12 months preceding the birth of the child.

The recipient must be obtaining employment income in order to receive this benefit.

- **Income test**

The benefit is not income tested.

- **Benefit amount**

2011	2012	2013	2014
500 Lei per month			

**EUROMOD Notes:** The birth order of children is established taking into account only siblings present in the household. The benefit awarded for children aged between 2 and 3 and disabled is not simulated due to lack of information about the children’s disability status. The benefit is simulated for all 12 months of the income reference period in the case of children aged 0 and it is not simulated for children turning 2 during the income reference period. There is no information in the micro data relating to the activity status of the mother during the 12 months preceding birth. Instead, the condition relating to the contribution history of the parent is approximated by taking into account the

duration of the entire work history, i.e. parents (mothers) who have worked for at least 12 months during their life are considered eligible. The benefit is allocated to the mother if she is present in the household (i.e. the mother is considered by default to be the claiming parent).

#### **2.4.5 Minimum social pension/ social allowance for pensioners (Pensia minima garantată) (bsaoa\_ro)**

- **Definitions**

The unit of analysis is the individual (tu\_individual\_ro).

- **Eligibility conditions**

To receive a social allowance for pensioners, a person must be in receipt of a public pension, whatever its kind (old age, invalidity, survivor etc.).

- **Income test**

The pension amount due or in payment in the public pension system, combined with any other duties paid under special laws (any public pensions plus private pensions) must be below the guaranteed minimum social pension threshold - 350 Lei between 2011 - 2014.

- **Benefit amount**

The amount is assessed as the difference between the guaranteed minimum social pension level and the pension amount due or in payment in the public pension system, combined with any other duties paid under special laws.

**EUROMOD notes:** The minimum guaranteed pension is simulated for every month in receipt of a public pension. If two or more pensions have been received during the income reference period, the periods of receipt are assumed to be consecutive.

#### **2.4.6 Means-tested educational allowance (Money for High-School) (Sprijin financiar acordat elevilor din cadrul programului național de protecție socială 'Bani de liceu') (bched\_ro)**

- **Definitions**

The unit of analysis is the family (tu\_family\_ro). It is defined as consisting of the head, partner, own dependent children and loose dependent children. Are considered dependent children individuals under the age of 18, or under the age of 26 if in education, not themselves parents and not married.

- **Eligibility conditions**

The benefit is given to families with children below the age of 18 who are attending upper secondary education – high school. The family income per member must be lower than a threshold.

There is also an asset test enforced through social worker inquiries. The law establishes a list of goods of basic necessity that are taken into account in assessing the right to receiving this benefit. In case the family or single person owns only goods considered of basic necessity they are entitled to receive this benefit. In case the family or single person own goods that are not enlisted as basic necessity goods, they are not considered entitled to receiving the benefit.

If the family or single person owns basic necessity goods in an amount that exceeds the limit established by law, the potential income obtained through their exploitation is considered in assessing the net monthly income.

The list of basic necessity goods includes immobile goods (the family house and housing annexes) and mobile goods (gas cooker, refrigerator, washing machine, home heating system, computer, TV, furniture, and so on), land (differentiated according to the number of household members and to the type of crops that can be obtained), poultry and animals (in certain numbers) and other goods (clothing, personal hygiene and so on).

The benefit may be terminated in cases of unjustifiable absenteeism from school.

- **Income test**

The family income per member must be less than 150 RON per month. The threshold has not changed between 2007 and 2014. All income received by each family member during the three months prior to application is taken into account, except for: state allowance for children, family support allowance, scholarships and social grants, and other social aids provided for students.

- **Benefit amount**

The amount of the benefit is 180 Lei per month. The amount has not changed between 2011 and 2014.

**EUROMOD notes:** Sanctions due to absenteeism from school are not simulated. The asset test is only partially simulated (i.e. only financial capital and possession of a car are taken into account).

#### 2.4.7 Guaranteed min income (Venitul minim garantat) (bsa\_ro)

- **Definitions**

The unit of assessment is constructed for social assistance purposes; it consists of the head of the tax unit, the partner, their own dependent children and loose dependent children (tu\_bsa\_ro). To be considered a dependent child, an individual must be younger than 18 or younger than 26 and in education, not married and not a parent.

- **Eligibility conditions**

The benefit is given to the assessment unit if the monthly net income in the assessment unit is below a threshold, differentiated according to the number of persons in the assessment unit. The thresholds are presented below:

(per month)	2011	2012	2013	2014
single person	125 Lei	0.25 ISR	0.25 ISR	0.283 ISR
families with 2 persons	225 Lei	0.45 ISR	0.45 ISR	0.510 ISR
families with 3 persons	313 Lei	0.63 ISR	0.63 ISR	0.714 ISR
families with 4 persons	390 Lei	0.78 ISR	0.78 ISR	0.884 ISR
families with 5 persons	462 Lei	0.93 ISR	0.93 ISR	1.054 ISR
for each person over the number of five persons belonging to the family	31 Lei	0.062 ISR	0.062 ISR	0.073 ISR

There is also an asset test and a condition concerning community work for able bodied individuals of working age.

The law establishes a list of goods of basic necessity that are taken into account in assessing the right to receive this benefit. When the family or single person own(s) only goods considered of basic necessity they are entitled to receive the benefit. When the family or single person own(s) goods that are not listed as basic necessity goods, they are not considered entitled to receive the benefit.

If the family or single person own(s) basic necessity goods in an amount that exceeds the limit established by the law, the potential income obtained through their exploitation is considered in assessing the net monthly income.

The list of basic necessity goods includes immobile goods (the family house and housing annexes) and mobile goods (gas cooker, refrigerator, washing machine, home heating system, computer, TV, furniture, and so on), land

(differentiated according to the number of household members and to the type of crops that can be obtained), poultry and animals (in certain numbers) and other goods (clothing, personal hygiene and so on).

Unemployed able bodied working age adults must register as unemployed at the local Employment Office and not refuse to take up any job offers. The local authorities may require working age able bodied adults who are unemployed to do community work in return for receiving the benefit.

- ***Income test***

The benefit is means-tested. There is an income test and an asset test.

Income subject to the means test is: all gross market income ( *ils\_origy*) less employee SIC ( *tscee\_s*), less self-employed SIC ( *tscse\_s*), less personal Income Tax (*tin\_s*), plus old age pension (*poa*), plus disability pension (*pdi*), plus survivor's pension (*psu*), plus child raising allowance (*bccnw\_s*), plus child raising incentive (*bccrw\_s*), plus non means-tested child benefits (*bchnm\_s*), plus unemployment benefit (*bun*), plus alimony/ maintenance payments (*yptmp*), plus temporary sickness benefit (*bhl*), plus maternity benefit (*bma*), and plus guaranteed minimum pension/social allowance for pensioners (*bsaoa\_s*).

- ***Benefit amount***

The amount is the difference between the minimum guaranteed income level and the family's income. If the difference is less than 10 Lei per month, than 10 Lei is received as benefit. If there is at least one working adult in the unit, the benefit is increased by 15%.

**EUROMOD notes:** The income test is simulated using annual incomes and assuming that the monthly income has been constant throughout the income reference period. Thus, fluctuations in the family's monthly income throughout the reference year are not captured. The asset test is only partially simulated. Only financial capital and possession of a car are taken into account. The work test is not simulated.

EUROMOD offers the possibility to calibrate the receipt of social assistance by excluding units where the head is aged under 26 (these are likely to be students or young people still financially dependent on their parents).

### 2.4.8 Support allowance for families with children- (Alocația pentru susținerea familiei) (*bchmt\_ro*)

- ***Definitions***

The assessment unit is constructed for purposes of means-tested child benefits. It consists of the head of the tax unit, the partner, their own dependent children and loose dependent children (*tu\_bchmt\_ro*). For the single parent allowance the head is the lone parent of the dependent children.

Dependent child condition: children under 16 or children under 18, who are not themselves parents and have an income below a threshold (370 Lei per month in 2011).

A person is considered to be a lone parent if she is a parent of dependent children, is not married and is not cohabiting.

- ***Eligibility conditions***

Net monthly income per family member must be below a set threshold. There is also an asset test. The law establishes a list of goods of basic necessity that are taken into account in assessing the right to receive this benefit. When the family or single person own(s) only goods considered of basic necessity they are entitled to receive the benefit. When the family or single person own(s) goods that are not listed as basic necessity goods, they are not considered entitled to receiving the benefit.

If the family or single person own(s) basic necessity goods in an amount that exceeds the limit established by law, the potential income obtained through their exploitation is considered in assessing the net monthly income.

The Law no. 277/2010 establishes that children of school age must attend school in order for their family to be receiving this benefit and absences without leave may lead to reductions of the benefit

• **Income test**

Eligibility is subject to passing an income test. The income threshold depends on the number of persons assessed together as a family. Income subject to the means-test consists of the income used for the means-test of the guaranteed minimum income, plus guaranteed minimum income, plus means-tested "Money for high-school".

• **Benefit amount**

The amount is differentiated according to the number of dependent children in the tax unit. The amounts are presented below:

For the family consisting of husband, wife and dependent children the thresholds and amounts were:

RON/month	2011	2011
Per capita income threshold	less than 200 Lei	between 201 and 370 Lei
1 child	30	25
2 children	60	50
3 children	90	75
4+ children	120	100

In 2012, 2013 and 2014 the thresholds and amounts are calculated as % of the ISR:

Per month	2012-2013/ 2014	2012-2013/2014
Per capita income threshold	less than 0.40 ISR (including 0.40 ISR)	above 0.40 ISR and below 0.740 ISR
1 child	0.06 ISR/0.08 ISR	0.05 ISR/0.066 ISR
2 children	0.12 ISR/0.16 ISR	0.1 ISR/0.132 ISR
3 children	0.18 ISR/0.24 ISR	0.15 ISR/ 0.198 ISR
4+ children	0.24 ISR/0.32 ISR	0.2 ISR/ 0.264 ISR

\* ISR set to 500 RON, thus the quantum remains unchanged compared to 2011.

For the family consisting of lone parent living together with dependent children, the thresholds and amounts are:

RON/month	2011	2011
Per capita income threshold	less than 200 Lei	between 201 and 370 Lei
1 child	50	45
2 children	100	90
3 children	150	135
4+ children	200	180

In 2012, 2013 and 2014 the thresholds and amounts were:

	2012-2013/2014	2012-2013/2014
Per capita income threshold	less than 0.40 ISR (including 0.40 ISR)	above 0.40 ISR and below 0.740 ISR
1 child	0.1 ISR/0.13 ISR	0.09 ISR/0.12 ISR
2 children	0.2 ISR/0.26 ISR	0.18 ISR/0.24 ISR
3 children	0.3 ISR/0.39 ISR	0.27 ISR/0.36 ISR
4+ children	0.4 ISR/0.52 ISR	0.36 ISR/0.48 ISR

**EUROMOD notes:** The income test is conducted using the annual income and not the monthly income-i.e. it is assumed that monthly income is constant throughout the year. The asset test is only partially simulated- only possession of a car and possession of financial capital are used in the simulation. Sanctions due for unauthorized absences from school are not simulated.

#### 2.4.9 Means-tested heating benefit (Ajutorul pentru încălzirea locuinței) (bhoen\_ro)

- Definitions**

The assessment unit is the household (tu\_household\_ro).

- Eligibility conditions**

Net monthly income per family member should be less than a threshold. The monthly income per family member threshold is differentiated according to the type of heating used by the household (see below for exact figures).

There is also an asset test. The law establishes a list of goods of basic necessity that are taken into account in assessing the right to receive this benefit. When the family or single person own(s) only goods considered of basic necessity they are entitled to receive this benefit. When the family or single person own(s) goods that are not enlisted as basic necessity goods, they are not considered entitled to receiving the heating benefit.

If the family or single person own(s) basic necessity goods in an amount that exceeds the limit established by the law, the potential income obtained through their exploitation is considered in assessing the net monthly income.

- Income test**

The means-test consists of a income test and an asset test.

Income subject to the means test is: all gross market income ( ils\_origy), less Employee SIC ( tsee\_s), less Self-employed SIC ( tscse\_s), less Personal Income Tax (tin\_s), plus Old age pension (poa), plus Disability pension (pdi), plus Survivor's pension (psu), plus Child raising allowance (bccnw\_s), plus Child raising incentive (bccrw\_s), plus Non means-tested child benefit (bchm\_s), plus unemployment benefit (bun), plus alimony/ maintainance payments (yptmp), plus temporary sickness benefit (bhl), plus maternity benefit (bma) plus the guaranteed minimum pension/social allowance for pensioners (bsaoa\_s), plus the guaranteed minimum income (bsa\_s), plus "Money for high-school" benefit (bched\_s).

The income thresholds depend on the type of heating used:

##### I. Thermal energy provided by the centralized system, 2011-2014

Average monthly net income per family member, and per a single person (Lei)	Percentage compensation of the actual amount of heat energy bill (%)	
	Family	Single person
Up to 155	90%	100
155.1 - 210	80	90
210.1 - 260	70	80
260.1 - 310	60	70
310.1 - 355	50	60
355.1 - 425	40	50
425.1 - 480	30	40
480.1 - 540	20	30
540.1 - 615	10	20
615.1 - 786	5	15
786.1 - 1082	0	10

Families that benefit from social aid under the Law regarding the Minimum Guaranteed Income received a compensation of 100%.

##### II. Natural gas

Average monthly net income per family member, and single person (Lei)	Monthly amount (Lei)	
	2011-2013	2014
Up to 155 Lei	262	262

155.1 – 210	162	190
210.1 – 260	137	150
260.1 – 310	112	120
310.1 – 355	87	90
355.1 – 425	62	70
425.1 – 480	44	45
480.1 – 540	31	35
540.1 – 615	19	20

### III. Wood, coal and oil fuel, 2011-2014

Average monthly net income per family member, and single person (Lei)	Monthly amount (Lei)
Up to 155	54
155.1 - 210	48
210.1 - 260	44
260.1 - 310	39
310.1 - 355	34
355.1 - 425	30
425.1 - 480	26
480.1 - 540	20
540.1 - 615	16

- **Benefit amount**

The benefit amount is differentiated according to the type of heating used by the household, the heating costs incurred by the household, and also according to the monthly net income per household member (see above for further information). For the households using heating in centralised system, the benefit compensates a certain percentage of the heating bill. For households using natural gas, wood, coal or oil fuels, the benefit is flat-rate. The benefit is given monthly during the cold season, between November 1<sup>st</sup> and March 31<sup>st</sup> next year.

**EUROMOD notes:** The benefit is calculated as the sum payable during the year: i.e. Jan-Mar + Nov-Dec of the income reference year. The type of heating used by the family is imputed based on urbanization. Households living in urban areas are assumed to be using the centralized system whereas households living in rural areas are assumed to use fossil fuels. For households using the centralized heating system, the average monthly heating bill is imputed based on the 2007 Household Budget Survey. The heating cost for the winter months (Nov-March) is imputed to be approximately 23% of total yearly utilities cost.

The income test is carried out using annual rather than monthly income. The asset test is only partially simulated- only possession of a car and of financial capital is used in the asset test.

## 2.5 Social contributions

### 2.5.1 Employee Social and Unemployment Insurance Contributions (Contribuții în cadrul bugetului asigurărilor sociale de stat, contribuții în cadrul asigurărilor pentru șomaj) (tscee\_ro)

The unit of analysis is the individual (tu\_individual\_ro).

The base for the calculation of social insurance contribution is the gross employment income - *yem*. The social insurance contribution is not levied on employees' participation to company profit - *yemcs*.

The social contribution base is limited to five national average gross wages.

The unemployment contribution base is the gross wage for employees.

#### *Employee Social insurance contribution*

Employee Social insurance contribution rate is 10.5% in 2011-2014.

**Employee Unemployment contribution**

Employee Unemployment contribution rate is 0.5% in 2011 - 2014.

**EUROMOD notes:** Employee social insurance contributions (including contribution ceilings) are simulated based on the number of months in employment during the income reference period. The exemption of employee’s participation in company profit from the contribution base is not simulated.

**2.5.2 Employer Social and Unemployment Insurance Contributions (Contribuții în cadrul bugetului asigurărilor sociale de stat, contribuții în cadrul asigurărilor pentru șomaj) (tscer\_ro)**

The unit of analysis is the individual (tu\_individual\_ro).

The base for the calculation of social insurance contribution (il\_tscer\_base) is the gross employment income – yem.

The social insurance contribution base for employers is limited to five national average gross wages multiplied with the number of employees, while for the unemployment contribution there is no upper threshold for the contribution base.

The Salary Guarantee Contribution is due only by private employers.

The contribution rates depend on working conditions and are detailed below:

Type of contribution	% of contribution base			
	2011	2012	2013	2014
<b>social insurance</b>	20.8%, 30.8%	25.8%, 20.8%, 25.8%, 30.8%	20.8%, 25.8%, 30.8%	20.8%, 25.8%, 30.8%
<b>unemployment insurance</b>	0.5%	0.5%	0.5%	0.5%

**EUROMOD notes:** Employer social insurance contributions (including contribution ceilings) are simulated based on the number of months in employment during the income reference period. Only the lowest SIC rate is simulated for all individuals (i.e. increased contribution rates for employees working in special and unusual conditions is not simulated due to absence of information about work conditions). Only the entire contribution is simulated, not its division into the first and second pillars. For purposes of the salary guarantee contribution, private sector employment is imputed based on occupation.

**2.5.3 Self-employed Social Insurance Contributions (Contribuții în cadrul bugetului asigurărilor sociale de stat, contribuții în cadrul asigurărilor pentru șomaj) (tcse\_ro)**

The unit of analysis is the individual (tu\_individual\_ro).

**SIC for the self-employed**

Individuals are not liable to pay SIC as self-employed if they are also employed or pensioners (except for income from intellectual property rights). The contribution base is the insured income declared by the self-employed, which may not be higher than 5 average gross wages and not lower than 35% of the national average gross wage, except for income from intellectual property rights; in this case the gross income is the tax base.

If the gross annual income obtained from independent activities is below the threshold of four national average wages the social insurance contribution is not due.

The contribution rate is 31,3% in 2011-2014 (for intellectual property rights: 10.5%).

The base for the calculation of the unemployment insurance contribution is the insured sum for the voluntary insurance contracts (self-employed), but not less than the statutory minimum wage in Romania and income from intellectual property rights for self-employed who earn this type of income (no minimum or maximum thresholds apply for income from intellectual property rights).

***Self-employed sickness insurance contributions***

The base for the calculation of Self-employed sickness insurance contributions is the difference between the self-employment income (without taking into consideration the income from intellectual property rights - *yse -yseil*) and the Social Insurance Contribution for the Self Employed – taxable income *ysetx\_s*.

During 2011 – 2014 the contribution rates were 0.85%.

***Self-employed work accidents insurance contribution***

The base for the calculation of self employed work accidents insurance contribution is the self-employed taxable income. During 2011 – 2014 the contribution rate was of 1%.

**EUROMOD notes:** If a person has both employment and self-employment income but the period spent in employment is less than 12 months, it is assumed that employment and self-employment income were generated in different periods. The contributory base for social insurance contributions is assumed to be the minimum insurable income-i.e. a third of the average gross wage for all self-employed paying this contribution. The same applies for sickness and accident insurance contributions. The exemption of income from intellectual property rights from sickness and work accident insurance is not simulated. There is a switch *tca\_ro* implemented for the adjustment of tax compliance (social insurance, health insurance, income tax) in the case of self-employed working in agriculture, living in rural areas with an income level below the average gross wage. It is assumed that if the above conditions are satisfied, than the individual does not pay taxes.

**2.5.4 Health Insurance Contribution (active population and pensioners) (Contribuția de asigurări sociale de sănătate) (tschl\_ro)**

The health insurance contribution is simulated separately from the other social contributions (social insurance and unemployment) and it is paid by employees, self-employed, employers and pensioners.

***Employee Health insurance contributions***

The unit of analysis is the individual (tu\_individual\_ro).

The health insurance contribution rate is 5.5% in 2011 - 2014 and is due on the gross wage, less the employees' participation in company profits.

***Self-employed Health insurance contributions***

The unit of analysis is the individual (tu\_individual\_ro).

The base for the calculation of self-employed health insurance contributions is the taxable income *ysetx\_s* (i.e. *self-employment income minus social insurance contributions*).

During 2011 – 2014 the contribution rate was 5.5%.

The health insurance contribution is due on self-employment income even when the individual has employee income as well, except when the self-employment income comes from intellectual property rights. Health insurance contribution is not due on intellectual property income unless it is the sole source of income.

***Employer Health insurance contributions***

The unit of analysis is the individual (tu\_individual\_ro).

The base for the calculation of employer health insurance contribution is the gross wage bill.  
The health insurance rate paid by employers was 5.2% in 2011 - 2014.

***Pensioners' Health insurance contribution***

The unit of analysis is the individual (tu\_individual\_ro).

The base for the calculation of health insurance contribution for pensioners is ils\_pen, which includes all income from public pensions.

Only pensioners with pensions above 740 Lei pay this contribution as 5.5% of the quantum of the total gross pension. After 2011 (i.e. 2012-2014) the 5.5% contribution is applied to the difference between the pension amount and the threshold of 740 Lei – OUG no. 17/ 2012.

**EUROMOD notes:** Health insurance contributions are simulated based on annual incomes. In the case of employee contributions, the exemption of employees' participation in company profits is not simulated. In the case of self-employed, the exemption of intellectual property income is not simulated. There is a switch *tca\_ro* implemented for the adjustment for tax compliance (social insurance, health insurance, income tax) in the case of self-employed in agriculture, living in rural areas with income level below the average gross wage. It is assumed that if the above conditions are satisfied, than the individual does not pay taxes.

**2.5.5 Credited Health Insurance Contributions (Contributia de asigurari sociale de sanatate plătită din alte surse decât venitul persoanei asigurate) (tschl\_ro)**

The unit of analysis is the individual (tu\_individual\_ro).

A number of categories are entitled to credited health insurance contributions. The categories that are insured but their contribution is paid from other sources than personal income are those in the following situations: (a) military service; (b) temporary work incapacity leave as a result of work accident or professional disease; (c) childcare leave; (d) arrested persons; (e) unemployment benefit recipients; (f) victims of human trafficking (g) expelled; (h) family members of guaranteed minimum income recipients.

The contribution rates and the contribution base for the above categories are as follows (5.5% from two minimum statutory gross wages in 2011 - 2014 for (a), (d), (f), (g); 5.5% from the unemployment benefit for (e) 2011 - 2014); 5.5% of the indemnity for work incapacity (b) 2011 - 2014); 5.5% from the social benefit received for (c), (h) (2011 - 2014). These contributions are paid from the state budget ((a), (c), (d), (f), (g)), the unemployment insurance budget ((e)), the local budgets ((h)) or the employer and the Insurance Fund for work accidents and professional disease ((b)).

The categories that benefit from credited health insurance contribution and are simulated in EUROMOD are the recipients of a sickness benefit; those on childcare leave (caring for a dependent child aged under two), unemployment benefit recipients and beneficiaries of social assistance minimum guaranteed income. These contributions are paid from the state budget, unemployment budget or local budgets.

Are insured without paying contribution the following categories: children up to the age of 18, people aged between 18 and 26 years if they are pupils, students or apprentices and do not earn any income; young people up to the age of 26 if they come from the child protection system and do not earn any income and are not beneficiaries of the minimum guaranteed income; a non earning spouse or parent of an insured person; people with disabilities who do not earn

income from working arrangements, pensions or other sources, except for the disability benefit; people with illness who are included in national health programs, pregnant and child bedding women if they do not earn any income; and politically persecuted persons.

Only the following categories are simulated to be entitled to health insurance contributions without payment- a) children under 18 or under 26 if in education and without earnings b) persons in receipt of a disability pension without any additional income sources, c) married partners of an insured person who have no income of their own, d) members of families receiving the minimum guaranteed income, e) parents of an insured person with no income of their own.

**EUROMOD notes:** Not all categories of beneficiaries can be simulated (see above for which categories are simulated). For parents on childcare leave, no credited contribution is simulated for children turning 2 during the income reference period; for children born in the income reference period-12 months of contribution are simulated. For social assistance recipients, the contribution is credited only for the head; the children and the spouse are normally insured without paying. It is assumed that the contribution is made from a local budget only if no other contribution is made from other sources.

### 2.5.6 Other social contributions

#### Benefit Recipients Social Insurance Contributions (Contribuții în cadrul bugetului asigurărilor sociale de stat, contribuții în cadrul asigurărilor pentru șomaj) (tscbr\_ro)

This is a credited social insurance contribution for recipients of unemployment, sickness and/or maternity benefits.

The unit of analysis is the individual (tu\_individual\_ro).

For recipients of unemployment benefits (thus  $bun > 0$ ), the contribution rate is 10.5% in 2011-2014.

For recipients of sickness benefits or maternity benefits - ( $bhl + bma > 0$ ), the contribution rate is 10.5% of minimum wage in 2011-2014.

**EUROMOD notes:** The contribution is simulated only for months in receipt of sickness and maternity benefits.

## 2.6 Personal income tax

### 2.6.1 Tax unit

For the personal income tax, the tax unit is the individual - tu\_individual\_ro.

During the process of identifying and allocating the dependent persons in the household to an individual tax unit, another tax unit is used, tu\_household\_ro, which includes all household members.

### 2.6.2 Exemptions

In Romania, the following income categories are exempted from personal income tax:

- Social benefits (allowances, indemnities, social insurance benefits, scholarships), other than pensions and temporary work incapacity benefit. Are exempted from personal income tax: invalidity pensions for the 1<sup>st</sup> degree of invalidity, benefits for war invalids.
- Income paid for damages suffered, either received from insurance of any type or from other sources, including punitive damages.
- The income equivalent of coupons/vouchers which are awarded to individuals, according to the legislation in force.
- Income or goods from inheritance or donation

- Income gains from real estate property transfers in the following three situations: the property is regained under special laws; donation between relatives of the 3<sup>rd</sup> degree at most and between spouses; inheritance, if the succession is finalized in maximum 2 years from the moment of death.
- Income earned by the members of diplomatic missions in Romania, under the condition of reciprocity and income earned by members of Romanian diplomatic missions, councillor offices and cultural institutes placed abroad.
- Income earned by officials of international organizations for their activity in Romania.
- Income earned by foreign citizens for consultancy activities, under non-reimbursable financing agreements.
- The difference of subsidized interest for credits, under the legislation in force.
- Income from prizes gained by sportsmen winning prizes at European, World and Olympic championships.

In EUROMOD simulations, the following sources of income are exemptions from personal income tax:

- Allowance for new born children and the outfit for the new born children
- Universal child benefit
- Child raising allowance
- Child raising incentive
- Minimum social pension/ social allowance for pensioners
- Means-tested educational allowance (Money for High-School)
- Social assistance Guaranteed minimum income
- Means-tested heating benefit

### 2.6.3 Tax allowances

There is a **Tax allowance for pensioners** of maximum 1000 Lei per month (for policy years 2011-2014). The tax base is the difference between the gross income less any mandatory social contributions and the tax allowance amount.

**For employees** there is the **Tax allowance for oneself and allocated dependents** – It is a personal deduction which is given to employees who have a monthly gross wage under or equal to 3000 Lei. The amount of the deduction is a function of the number of taxpayer’s dependent persons, as seen in the table below (for a monthly gross wage not higher than 1000 Lei).

Number of dependents	Personal deduction (Lei)
0	250
1	350
2	450
3	550
4 or more	650

This tax deduction is applied only on wages and only at the main job or activity.

If the gross wage is between 1001 and 3000 Lei, the personal deduction is decreasing with income and its amount is established by applying the following formula:

$$\text{Personal deduction} = \text{Personal deduction (gross wage} \leq 1000 \text{ Lei)} * [1 - (\text{Gross wage} - 1000) / 2000]$$

The *dependent person* can be the spouse, children or other family members, relatives up to the 2<sup>nd</sup> degree (children, parents, brothers and sisters, grandparents and grandchildren) of the taxpayer or his/her spouse’s with a gross taxable and non-taxable income (all income, whatever its source is included ) which does not exceed 250 Lei.

Children under 18 years are considered dependent persons, except for children aged between 16 and 18 who are legally employed, in which case the child is treated as a tax payer and he could be a dependent person only if his income is below the 250 lei threshold.

*Deductions for private voluntary pension contributions*- contributions made to private pension plans are deductible from the tax base up to the limit of 1673.5 Lei per year in 2011-2014 (the equivalent of 400 Euros in RON). The deduction is applicable only to employees.

Other tax allowances in the Romanian system are the tax allowance for trade union fees (which are fully deductible from the tax base in the case of employees) and the tax allowance for savings in collective systems for dwelling expenses. These are not simulated in EUROMOD due to lack of information in the input dataset.

### 2.6.4 Tax base

The calculation of the tax base for the personal income tax differs with the type of the income.

For *employment income*, the tax base is the taxable income which is calculated as gross income minus social insurance and health contributions and minus tax allowances.

For *self-employment income*, the tax base is the difference between the net gain (income minus expenses) and social insurance and health contributions (also, losses for the last five fiscal years, if any, can be deducted as well). If the self-employed has no employees, the rule is to be taxed based on net income established by income norms, issued by the Ministry of Finance on a yearly basis depending on region (county), type of economic activity and seasonality, but self-employed without employees may choose to be taxed based on their real income.

For *investment income*, the tax base is the net gain from investments.

For *pensions*, the tax base is the difference between the gross income and social contributions and the tax allowance for pensioners.

### 2.6.5 Tax schedule

The personal income tax is paid by individuals as a flat rate of 16% levied on the income tax base.

### 2.6.6 Tax credits

An amount up to 2% of the personal income tax paid on employee and self-employed income can be donated to non-profit organizations or for private scholarships.

There are no tax credits simulated in EUROMOD due to the lack of necessary information.

**EUROMOD notes:** For purposes of calculating the employee allowance for oneself and dependents, the family relationships are not checked. Any person residing in the same household with an employee may be considered a dependent if he/she satisfies the income threshold criterion or is aged below 16. Annual incomes are used in determining whether an adult may be considered dependent or not. Income used in the test of dependency include earnings, pension income, unemployment benefits, sickness benefit, child care allowance /incentive, investment income, property income, private pensions, severance payments, educational allowances, the universal child benefit and income received by children under 16.

If there is more than 1 employee eligible to claim the tax allowance for dependents, the allocation of dependents in the household is optimized so that the maximum tax allowance may be claimed. The optimization is done by first allocating dependents to the employee with the lower income until income available to claim the tax allowance is exhausted, moving on to the employee with the next lowest income and so on.

None of the tax credits have been simulated.

There is a switch *tca\_ro* implemented for the adjustment of tax compliance (social insurance, health insurance, income tax) in the case of self-employed in agriculture, living in rural areas with income level below the average gross wage. It is assumed that if the above conditions are satisfied, than the individual does not pay taxes.

### 3. DATA

#### 3.1 General description

The Romanian database used in EUROMOD is the Romanian Survey on Income and Living Conditions, (also called Quality of Life Survey), which actually represents the implementation of the European Union Statistics on Income and Living Conditions (EU-SILC) survey in Romania. In 2012, the survey was carried out by the National Institute of Statistics. An integrated design with a rotational sample was applied, in which the sample is divided in four sub-samples, each of them similar in size and design and representative for the whole population. From one year to another three sub-samples are retained, one is dropped and one new sub-sample is included in the survey. In this way, the cross-sectional and longitudinal statistics are produced from the same set of sample observations.

The data is collected during the 5<sup>th</sup> month of the year following the income reference year (the calendar year: January – December 2011).

The unit of assessment is the household, defined as a person living alone or a group of persons who live together in the same dwelling and share expenditures including the joint provision of the essentials of living (the household membership definition used is according to Eurostat recommendations EU-SILC 065). The response rate of households calculated as the share of complete household interviews accepted for the database out of the number of eligible households found at contact addresses is equal to 95.27%, while the overall individual response rate is 94.92%.

The sampling plan is a two-stage probability sampling of housing units (dwellings). In the first stage, a stratified random sample of 780 areas, called Primary Sampling Units (PSUs), was designed using the 2002 Census. The PSUs were sampled with a probability proportional to size (number of permanent dwellings). In the second stage, dwellings are systematically selected from sampled PSUs. All households within each dwelling are included. There are 88 strata; the criteria used being the area where a certain PSU is located (urban or rural area) and county (NUTS 3 level). The new dwellings built after the 2002 Census have not been taken into account in the sampling, but further on the sample was updated with data from a micro-census survey on new dwellings.

The EUROMOD database is built on the UDB (User Data Base) version provided by Eurostat. We use the first SILC 2012 cross-sectiona release.

Table 3.1. EUROMOD database description

EUROMOD database	RO_2012_a1
Original name	UDB_c12_ver_2012-1 from 01-03-14 (RO)
Provider	Eurostat
Year of collection	2012
Period of collection	9-29 May 2012
Income reference period	Year 2011
Sample size	7598 households, 17749 individuals (15913 aged over 16 years)
Response rate	95.27%[1]

Note: household response rate is 95.27%, the overall individual response rate is 94.92%.

## 3.2 Data adjustment

In order to prepare the datasets to meet the EUROMOD requirements, some adjustments are made. It is checked whether the relationships within a household are valid and consistent (e.g. the parents of the same children are the partners of one another) and some adjustments are made. Also, income from non-respondents is allocated by splitting the adjustment income among non-respondent individuals according to the main source of income by age. For consistency between demographic and income variables, all children born after the income reference period have been dropped from the database. Missing values for socio-demographic and labour market variables are checked and imputed and the consistency between labour market and income information as well.

## 3.3 Imputations and assumptions

### 3.3.1 Time period

The reference period for the socio-demographic variables is the time of data collection, May 2012, except for age, in which case two variables are included in the database, the current age (at data collection, variables rx010) and the age at the end of income reference year (variable rx020). For the labour market and economic information the situation is similar, some of the variables are collected also for the income reference period and for the current time frame. For example, the main activity status is collected for the current period (variable rb210), but also for the income reference period (variable rb170), the information being completed with the number of month spent in work, unemployment, retirement, studying (variables pl070 –pl090) and with the main activity monthly (pl210A – pl210L).

The income reference period is the calendar year previous to the data collection period, Jan-Dec 2011, and no reconciliation of variables with different reference periods is done by using labour market information from previous wave.

In EUROMOD it is assumed that the yearly income collected is received equally throughout the months of the year.

### 3.3.2 Gross incomes

The EU-SILC for Romania included in the household and individual questionnaires a long list of income components, currently existing in Romania (45 income components in the individual questionnaire and 19 income components in the household questionnaire). The aggregated personal and household income categories which are reported in the UDB version of the EU-SILC are calculated from these elementary components, and finally they are aggregated all in the gross (hy010) and disposable income (hy020) for each household who accepted the interview. It should be mentioned that EUROMOD has not gained access to the collected national SILC income components.

No additional income information is used in order to clean or improve the original/ collected data. No administrative records were used and the use of the justifying documents regarding the incomes was the respondents' decision.

The majority of income components were recorded net and the gross variables were obtained by adding to the net values, the value of income taxes retained at source and social contributions paid (in the case of wages, all sums retained at source were added). For self-employment incomes (variables py050g, py050n) the anticipated income tax and social contributions (unemployment, health and pension) were collected as well and any profit or loss.

The only income components calculated in the process of data editing were:

- the value of income tax retained at source for salaries (flat rate of 16% for income tax), the respondents being asked only if they paid or not the income tax for wages;
- the exact value of the social insurance contribution retained at source for salaries, if this was declared in the form of an interval.
- the value of income tax retained at source and social insurance contributions for pensions (if the value of the pension is more than 1000 Lei);
- the interest for dividends and money withdrawn from bank.

### 3.3.3 Disaggregation of harmonized variables

An important number of income components had to be imputed from the aggregate amounts, as they were not available in the EU-SILC UDB version of the survey. These are the following:

- Disability benefit – based on the disaggregation of py130 which includes the disability benefit and the invalidity pension. It is assumed that the maximum disability benefit (293 RON) is received by the seriously disabled persons (with a positive disability status), the remaining amount is considered invalidity pension. As the invalidity pension cannot be received at the same time with old age pension person, if this is the case, we assume that they are received in different periods over the year.
- Invalidity pension – based on the residual of py130, after the disability benefit has been subtracted, under the condition that a person is not eligible for old-age pension (py100) and invalidity pension.
- Universal child benefit –disaggregated from family and children allowances (hy050) based on the benefit rules (number of children and their ages).
- Child raising benefit – disaggregated from family and children allowances (hy050) based on benefit rules: the existence of a child aged less than two in the income reference year, the number of months the mother is entitled to receive the benefit during the income reference period, mother’s eligibility (based on work history).
- Maternity benefit – disaggregated from family and children allowances (hy050) based on benefit rules: the existence of a child born in income reference period, number of months the mother is eligible to receive the benefit.
- Means-tested family benefits – disaggregated from family and children allowances (hy050 based on the residual family benefits by subtracting the the universal child benefit, the child raising benefit and the maternity benefit.
- Minimum social pension – dissaggregated from the sum of all public pensions received; if the sum is around 350 Lei (the minimum pension), we assume the person is receiving the guaranteed minimum pension and split the pension into contributory and non-contributory parts. The amount of the contributory part (approx.14% of the total) has been imputed based on external statistics. All contributory pensions have been rescaled by subtracting the value of the non-contributory part (minimum social pension).
- Unemployment benefit –recomputed based on benefit rules: the benefit entitlement period in months, work history for those with an unemployment spell and the bonus percent depending on work history.
- Severance payments – based on the observed differences between the collected unemployment benefit (py090) and the recomputed unemployment benefit.
- Financial capital asset - based on the UDB variable on investment income and external information on the average interest rate for financial market during the year 2011.

### 3.4 Updating

The updating factors are used in order to update the monetary variables for the time inconsistencies between the input dataset and the policy year. Socio-demographic characteristics and labour market variables are not updated, remaining at their initial values. Updating factors are generally based on indexation rules and/or changes in the average value of an income component between the year of the data and the policy year when indexation is not available. For detailed information about the construction of each updating factor as well as the sources that have been used, see Annex 1.

## 4. VALIDATION

### 4.1 Aggregate Validation

The macro-validation is based on external statistics from official survey data (HBS, LFS) and from administrative records (budgets, number of social benefits' recipients). Differences between input data and external statistics may result also from the different accounting, i.e. external statistics is often based on monthly average or situation at the end of the year, while EUROMOD gives annual results, which could be relevant especially for the number of recipients/ taxpayers.

#### 4.1.1 Components of disposable income

The components of disposable income, as they are defined in EU-SILC vs. EUROMOD can be found in the table below. There are a few differences between the two definitions for disposable income. *Repayments/receipts for tax adjustment*, which are not taken into account in EUROMOD simulations for the disposable income. Also, in EUROMOD we use a module for the *optimization of tax allowances* which could lower taxes and increase the disposable income.

Table 4.1 Components of disposable income

	EUROMOD [2011- 2014]	EU-SILC [2012]
	ils_dispy	HY020
Employee cash or near cash income	+	+
Employer's social insurance contribution	-	-
Contributions to individual private pension plans	0	0
Cash benefits or losses from self-employment	+	+
Pension from individual private plans	+	0
<i>Unemployment benefits</i>	+	+
<i>Old-age benefits</i>	+	+
<i>Survivor' benefits</i>	+	+
Sickness benefits	+	+
Disability benefits	+	+
Education-related allowances	+	+
Income from rental of a property or land	+	+
<i>Family/children related allowances</i>	+	+
Social exclusion not elsewhere classified	+	+
Housing allowances	+	+
Regular inter-household cash transfer received	+	+
Interests, dividends, etc.	+	+
Income received by people aged under 16	+	+
Regular taxes on wealth	-	-
<i>Regular inter-household cash transfer paid</i>	-	-
<i>Tax on income and social contributions</i>	-	-
<i>Repayments/receipts for tax adjustment</i>	0	+

### 4.1.2 Validation of incomes inputted into the simulation

The simulation results on the number of employed and unemployed are generally consistent with the information offered by the external statistics. The exception is the year 2014, when the number of unemployed has grown significantly. It should be also noted that the unemployed are under-represented in the original dataset. The differences between EUROMOD and external statistics can be explained also by the different accounting for unemployed and employed, which are computed from external sources as monthly and quarterly averages over the year (see Annex2, Table 4.2).

The simulation results on the number of employed are consistent with the information offered by the external statistics, while the number of self-employed is overestimated in EUROMOD as compared to LFS data, possibly due to the fact that LFS data on employment status refer only the main economic status and thus do not capture self-employed who are also employees while both employment and self-employment are recorded for all individuals in EUROMOD (see Annex2, Table 4.3).

The average employment income is close to external benchmarks, while the total employment income is slightly overestimated in EUROMOD as a result of the overestimation of the number of employed persons. (See Annex 2, Table 4.4).

The self-employment income is over-estimated in EUROMOD. Data regarding self-employment is obtained from the Household Budget Survey, which is a survey based on a sample of more than 33000 households every year. It is not clear why the two datasets give diverging estimates of self-employment(See Annex 2, Table 4.4).

The estimations for rent income under-estimated in EUROMOD as compared with the external data (See Annex 2, Table 4.4).

While the simulation results regarding the old-age pension are consistent with the information offered by the external statistics, there are discrepancies between the two sources of information in the case of disability (invalidity) pension, but also in the case of survivors' pension, both in number of recipients and amounts. These can be explained by the SILC aggregation of benefits for persons over 65, namely the disability and survivors benefits/ pensions for people aged over the standard retirement age are counted as old age benefits. The discrepancies are substantial in the case of the disability benefits, which are severely underestimated as the dataset underestimates as well the number of disabled persons (See Annex 2, Table 4.5 and Table 4.6).

### 4.1.3 Validation of outputted (simulated) incomes

The number of recipients of *child raising allowance* is significantly smaller than official statistics. This could be explained by the small number of children aged 0 in the dataset, but also by the fact that we do not simulate children that turn 2 years during income reference period. The child raising allowance is differentiated for disabled children up to the age of 3, which we do not simulate, so this could also influence our results compared to the external statistics.

The number of recipients of the *child raising incentive* is significantly overestimated. The main explanation for this gap is the non-take-up of the benefit, as the amount is fairly small and the effort involved in applying is significant. The benefit is assigned for all working months, based on the variable number of months in employment in the dataset, which could be problematic. On the other hand, it could be an over-estimation for children born during income reference period, as the number of months in work could be referring to the period before birth (See Annex 2, Table 4.7).

The number of recipients of the *guaranteed minimum income* is overestimated. This can be explained due to the fact that not all the conditions for receiving social assistance can be simulated in the model – the list of basic necessity goods that are eligibility conditions for benefiting of social assistance is not implemented in the model, and neither is the eligibility condition regarding community services that must be done by the recipient (or a household member). A calibration implemented in the model to improve the simulation eliminates receipt for families that area headed by

persons aged 18-26. After the calibration the number of recipients is overestimated approximately 3 times (See Annex 2, Table 4.7).

The *unemployment benefit* recipients are under-simulated for the years 2011-2013. At least part of the under-simulation is explained by the too low number of unemployed in the dataset, and additionally by the sharp increase in the number of unemployed who receive unemployment benefit (See Annex 2, Table 4.7).

*Money for high-school* number of recipients is over estimated in the model. This can be explained by the non-take up phenomenon and the fact that certain conditions cannot be simulated in the model (such as educational performances, absenteeism etc.) (See Annex 2, Table 4.7).

The *salary guarantee contribution* is overestimated compared to external data. A possible explanation is that the guarantee contribution is paid only by private employers, while the type of the employer is not observed in the data and it was roughly imputed based on occupation. The results underestimate the number of public employers (See Annex 2, Table 4.7).

The number of recipients of *health insurance contributions* is slightly underestimated. The external statistic is the sum of employee contributors and pensioner contributor, so persons who are both employees and pensioners are counted twice (See Annex 2, Table 4.7).

The *support allowance* for families with children is strongly overestimated especially in 2011 and 2012. The drop in the number of recipients comes after a reform of this benefit so it is possible that some families failed to re-apply under the new rules and thus lost entitlement. The drop in recipients from 2010 to 2011 in external data is very large (See Annex 2, Table 4.7).

The number of recipients of the *guaranteed minimum pension* (minimum social pension) are relatively well estimated between 2011 and 2013. External information for the subsequent period is not available.

*Self-employed social insurance contributions* :No clear external information on the number of self-employed who pay social insurance contribution is available. The external data we use for macro-validation stands for the total number of self-employed. Before 2011, the majority of self-employed pay social insurance contributions. After 2011, a minimum income threshold is introduced. As such the number of SIC contributors among the self-employed has declined in our simulation. We can no longer validate self-employment SIC contributions after 2011.

Other taxes & benefits are in-line with the external information provided (See Annex 2, Table 4.7) .

The difference between the number of beneficiaries from simulation and external statistics leads to discrepancies between the simulated amounts and the external statistics for the benefits under discussion. This is the case of the *child raising allowance*, which is below the external benchmark, but also for the *child raising incentive* and the *family support allowance* which are much higher than external statistics.

The *guaranteed minimum income* amounts are over-simulated. The discrepancy may be explained by the too large number of beneficiaries; but, as the over-simulation is less severe in the case of amounts compared that of the number of beneficiaries indicates that, at least partly, results may be explained by the non-take up of small benefits.

The total *unemployment benefit* amounts are severely under simulated. At least part of the under-simulation is explained by the too low number of unemployed, but also by the small number of months in unemployment in the dataset compared to external data.

The *heating aid* amounts are over simulated. This is because information on several elements that enter the policy does not exist in the dataset and, as a result, is fully imputed based on averages per type of heating and area of residence. Then, starting from 2011, the beneficiaries go through a supplementary means- testing on goods, which is not simulated in EUROMOD. For the moment, the simulation will not be changed.

Total revenues from *the personal income tax* are under simulated. It is not clear yet what explains the observed difference. One possibility is that the optimization of the employee tax allowance leads to its overestimation and subsequent to too small tax base, but still the difference remains. It could be also a poor coverage of high income households in the survey.

*Employee unemployment insurance contributions* are over-estimated.

*Self-employed social insurance contributions* -No clear external information on contributions paid by the self-employed is available.

Simulated amounts for *employer accident insurance* are only half of external data. One possible explanation that could be brought forward is that only the lowest contribution rate is simulated, while the rate actually depends on occupation and economic sector.

Simulated amounts of *credited social contributions on behalf of recipients of unemployment, maternity & sickness benefits* are too low. A possible explanation stands in the number of unemployed and simulated unemployment benefits in the data that are too low. It is not known whether receipt of maternity and sickness benefits is accurately captured in the data.

*Health insurance contributions* are underestimated.

## 4.2 Income distribution

All income distribution results presented here are computed for individuals according to their household disposable income (HDI) equivalised by the “modified OECD” equivalence scale. HDI are calculated as the sum of all income sources of all household members net of income tax and social insurance contributions. The weights in the OECD equivalence are: first adult=1; additional people aged 14+ = 0.5; additional people aged under 14 = 0.3.

### 4.2.1 Income inequality

The income distribution indicators in EUROMOD are relatively close to those generated directly using SILC data (See Annex2, Table 4.9). The mean and median income are only very slightly lower in EUROMOD, as is the Gini coefficient. The decile ratio is however undersimulated in EUROMOD particularly in 2011. These differences and their sign are more obvious in the detailed income distribution by decile shares, which is more divergent between the two sources at the tails of the distribution. The over-simulation of benefits may result in over simulation of income at the bottom deciles, and combined with the under-simulation of tax in the 10<sup>th</sup> decile leads to the under simulation of the S80/ S20 measure.

The aggregated amount of income taxes simulated in EUROMOD is below the external figures, this is what could lead to too high disposable income in EUROMOD, thus a possible explanation for the distributional differences. However, overall differences between EUROMOD generated results and the external benchmark are small.

### 4.2.2 Poverty rates

The calculations based on EUROMOD are generally consistent with the information from SILC regarding the poverty rates (See Annex2, Table 4.10). In general, EUROMOD produces slightly lower poverty rates compared to SILC especially when stricter poverty lines are used. The alignment of poverty rates between the two sources is stronger at the higher poverty lines suggesting that there may be some overestimation of incomes at the very bottom of the distribution in EUROMOD.

Poverty rates using the 60% of median threshold are slightly overestimated in EUROMOD compared to SILC are relatively well aligned for all age groups.

### 4.3 Validation of minimum wage

Including minimum wage in the simulations has little impact on the overall results. As expected, employment, disposable income, simulated taxes and social insurance contributions increase slightly while social assistance decreases slightly. Poverty also is slightly lower when minimum wage is simulated. However, the estimated differences are very small indicating that the number of individuals with recorded hourly wages below the minimum is very small in the dataset.

### 4.4 Summary of “health warnings”

This final section summarizes the main findings in terms of particular aspects of the part of EUROMOD or its database that should be borne in mind when planning appropriate uses of the model and when interpreting results.

- The sample is relatively small and is calibrated by age group (except for the groups 0-15 years and 75+ years), residence (rural/ urban) and gender. Therefore, care should be taken in analyzing and interpreting the results for small groups.
- The data base used in the simulations is the 2012 SILC with 2011 income data, for the subsequent years the monetary variables are updated with income specific updating factors. The socio-demographic characteristics and labour market variables are not updated, remaining at their initial values.
- Many of the benefit income variables in the original SILC dataset had to be disaggregated for taxation and social insurance contribution purposes; this inevitably introduces an amount of error.
- The macro-validation is based on external statistics from official survey data (HBS, LFS) and from administrative records (budgets, number of social benefits' recipients) as well.
- Differences between input data and external statistics may result also from the different accounting, i.e. external statistics is often based on monthly average or situation at the end of the year, while EUROMOD gives annual results, which could be relevant especially for the number of recipients/ taxpayers.
- While the simulation results on the number of employed are consistent with the information offered by the external statistics, it is obvious that there are quite significant differences between simulation results and the external statistics regarding the number of unemployed.
- Average employment income is below external benchmarks, as well as property income, while self-employment income and total employment income are over estimated in the dataset.
- The number of recipients of the guaranteed minimum income is severely overestimated in EUROMOD. This can be explained by the fact that not all the conditions for receiving social assistance can be simulated in the model – the list of basic necessity goods that are eligibility conditions for benefiting of social assistance is not implemented in the model, and neither is the eligibility condition regarding community services that must be done by the recipient (or a household member).
- Total revenues from personal income tax are under simulated. It is not clear yet what explains the observed difference. One possibility is that the optimization of the employee tax allowance leads to its overestimation and subsequent to too small tax base, but still the difference remains. It could be also a poor coverage of high income households in the survey.
- The family allowances related to children under 2 years (*child raising allowance*) are under-simulated both in numbers and amount mainly because there are not enough children aged 0 in the dataset.
- The income distribution slightly differs between the two sources, EUROMOD and SILC. The possible explanations that could be mentioned concerning the differences in the income distribution is the *optimization of tax allowances* which is done in EUROMOD, thus the disposable income of especially low income households is lifted up by this procedure.
- With the exception of the guaranteed minimum income where some adjustments are made, 100% benefit take-up is assumed.

- Adjustments for tax compliance (social insurance, health insurance, income tax) are implemented in the case of self-employed in agriculture, living in rural areas with income level below the average gross wage.

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- Sources for tax-benefit descriptions/rules

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**ANNEX 1: POLICY EFFECTS**

Table A1: Policy effects for RO in 2013-2014, using the CPI indexation [1.01376056614901] on dataset RO\_2012\_a1, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0	0.26	5.29	-0.1	0	-0.02	-0.21	5.22
2	0	0.72	1.09	-0.06	0	-0.04	-0.15	1.56
3	0	0.76	0.43	0.06	0	0.12	-0.17	1.19
4	0	0.86	0.16	0.03	0	-0.04	-0.13	0.88
5	0	0.69	0.09	-0.01	0	-0.01	-0.13	0.62
6	0	0.7	-0.02	-0.01	0	0.01	-0.14	0.53
7	0	0.69	-0.01	0.07	0	-0.01	-0.15	0.6
8	0	0.62	-0.01	0.06	0	-0.01	-0.15	0.5
9	0	0.5	0	0.06	0	-0.02	-0.14	0.4
10	0	0.34	0	0.04	0	-0.01	-0.1	0.27
Total	0	0.57	0.21	0.03	0	0	-0.14	0.68

Notes : Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat’s Harmonized Index of Consumer Prices (HICP).

Figure A1: Policy effects in 2013-2014, using the CPI-indexation, %



As a result of policy changes between 2013 and 2014, the disposable income of all household has increased by approximately 1%. The households in the first decile group have benefited of nearly 6% increase of their disposable income, mostly driven by the changes in the means-tested benefits (more than 5% of disposable income). Particularly, the means-tested family allowance has benefit from an increase of 33% of previous values for both amounts and thresholds for income testing. The most important means-tested benefit, the social assistance benefit, has registered a 13% raise in the eligibility threshold. Also, the amount of the heating benefit in the case of households using gas for house heating has been increased by a percent between 5 and 17%, depending on the income level of the household.

In the case of non means-tested benefits, there is a slight income increase effect (below 0.1% for all households), which can be attributed to the changes in the amounts of the unemployment benefit and child raising benefit, which were restored in 2014 to the 2010 value (pre-“austerity measures”). The positive change is visible only in the custom indexation scenario.

Negative income effects are attributed to direct taxes, specifically because of the increase of the minimum health insurance contribution, its value being linked with the statutory minimum wage, which was increased by 13% from 2013 to 2014.

There has been an increase in the pension income (almost 1% for all households), consequence of the indexation coefficient applied which is higher than the consumer prices index.

## ANNEX 2: UPDATING FACTORS

Factor name		2007	2008	2009	2010	2011	2012	2013	2014	Source
Harmonised CPI (2005=100)	\$f_HICP	111.84	120.69	127.43	135.17	143.04	147.88	152.61	154.71	Source: Eurostat, <a href="http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_aind&amp;lang=en">http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_aind&amp;lang=en</a>
Average monthly wage (gross), Lei	\$f_yem	1396	1761	1845	1902	1980	2063	2163	2582	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (Labour Cost Survey, table FOM107C) 2014: monthly data Decembre - Ministry of Labour, <a href="http://www.mmuncii.ro/j33/index.php/ro/transparenta/statistici/date-statistic">http://www.mmuncii.ro/j33/index.php/ro/transparenta/statistici/date-statistic</a>
Average monthly self-employment income, Lei	\$f_yse	668.7	802.4	903.7	909.9	915.9	1031.2	1101.2	1101.2	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (Household Budget Survey, table BUF104I), Data for 2014 - unavailable
Average monthly property income, Lei	\$f_ypr	3.26	6.77	4.54	3.72	3.02	4.04	3.44	3.44	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (Household Budget Survey, table BUF104I), Data for 2014 - unavailable
Average monthly old-age pension (public),Lei	\$f_poa	511	741	880	908	950	966	996	996	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (National House of Pensions, table PNS102A), Data for 2014 - unavailable
Average monthly survivors pension, Lei	\$f_psu	221	320	381	396	417	445	465	465	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (National House of Pensions, table PNS102A), Data for 2014 - unavailable
Average monthly disability pension, Lei	\$f_pdi00	319	460	542	557	568	565	577	577	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (National House of Pensions, table PNS102A), Data for 2014 - unavailable
Lagged average monthly wage (gross), Lei	\$f_prevyem	1146	1396	1761	1845	1902	1980	2063	2163	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (Labour Cost Survey, table FOM107C)

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Factor name		2007	2008	2009	2010	2011	2012	2013	2014	Source
Average monthly universal child benefit (bchnm), Lei	\$f_bchnm	41.25	57.09	62.04	62.45	61.05	60.19	59.93	59.74	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Average monthly means-tested family benefit (bchmt), Lei	\$f_bchmt	47.32	51.99	65.74	65.32	57.23	59.92	68.82	81.51	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Average monthly means-tested social assistance (bsa), Lei	\$f_bsa	138	136	156	172	173	179	206	230	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Average annually heating benefit (bhoen), Lei	\$f_bhoen	313.37	254.05	135.71	252.49	289.22	301.2	300.93	370.7	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Average monthly child raising allowance (bccnw), Lei	\$f_bccnw	629.96	614.37	798.31	938.41	922.15	916.66	899.45	925.32	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Average monthly disability benefit (bdi), Lei	\$f_bdi	95.23	107.81	117.71	119.38	119.07	119.85	119.7	120.75	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Average allowance for newborn (bchba), Lei	\$f_bchba	179.61	178.22	188.29	176.61	0	0	0	0	Source: Ministry of Labour, Family, Social Protection and Elderly, <a href="http://www.mmuncii.ro/j33/images/buletin_statistic/">http://www.mmuncii.ro/j33/images/buletin_statistic/</a> , 2014: data for the first three quarters
Value of the basic unemployment benefit, Lei	\$f_bun_Index	292.5	375	450	450	318.75	318.75	318.75	375	Source: Ministry of Labour, Family, Social Protection and Elderly

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Factor name		2007	2008	2009	2010	2011	2012	2013	2014	Source
Value of the pension point (bais for all types of public pensions indexation), Lei	\$f_pen_Index	396.2	581.3	718.4	732.8	732.8	732.8	762.1	790.7	Source: National House of Pensions, <a href="http://www.cnpas.org/portal/media-type/html/language/ro/user/anon/page/pensions.psml?weblog_name=pensions&amp;subject_id=1141805689624">http://www.cnpas.org/portal/media-type/html/language/ro/user/anon/page/pensions.psml?weblog_name=pensions&amp;subject_id=1141805689624</a>
Child allowance-Benefit amount, Lei	\$f_bchm_Index	25	32	42	42	42	42	42	42	Source: Ministry of Labour, Family, Social Protection and Elderly
Allowance for newborn - Benefit amount, Lei	\$f_bchba_Index	354	363	380	380	0	0	0	0	Source: Ministry of Labour, Family, Social Protection and Elderly
Average monthly unemployment benefit (bun), Lei	\$f_bun	321	401	469	470	525	421	426	424	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , ( table SOM105A)
Household disposable income, Lei	\$f_yds	1455.4 6	1828.5	1983.6 7	1979.8	2065.1 7	2108.4	2174.9 3	2174.9 3	Source: National Institute of Statistics, <a href="https://statistici.insse.ro/shop/">https://statistici.insse.ro/shop/</a> , (Household Budget Survey, table BUF104I, 106I), Data for 2014 - unavailable
Educational allowance, Lei	\$f_bed_Index	180	180	180	180	180	180	180	180	Source: Ministry of Labour, Family, Social Protection and Elderly
Private pensions	\$f_ypp	1	1	1	1	1	1	1	1	Consider nominal value unchanged
Harmonised CPI (2005=100)	\$HICP	111.84	120.69	127.43	135.17	143.04	147.88	152.61	154.71	Source: Eurostat, <a href="http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_aind&amp;lang=en">http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_aind&amp;lang=en</a>
Guaranteed minimum pension	\$f_bsaoa	0	0	350	350	350	350	350	350	Source: Maximum level for guaranteed minimum level

**ANNEX 3: MACROVALIDATION RESULTS**

Table 4.2-Number of employed and unemployed

	EUROMOD		External				Ratio			
	2011		2011	2012	2013	2014	2011	2012	2013	2014
Number of employed	8887.255		9137.74	9262.807	9001.075	8613.739	0.97	0.99	1.03	1.04
Number of unemployed	414.5003		461.013	493.775	492.427	628.682	0.90	0.93	1.00	0.78

Table 4.3-Market income in EUROMOD -Number of recipients (in thousands)

	EUROMOD		External				Ratio			
	2011		2011	2012	2013	2014	2011	2012	2013	2014
Employment income	6735.018		6153.3	6229.4	5743.5	5850.3	1.09	1.08	1.17	1.15
Self-employment income	2415.045		1717.2	1754.5	1690.9	1669.7	1.41	1.38	1.43	1.45

Table 4.4-Market income in EUROMOD -Annual amounts (in mil.)

	EUROMOD				External				Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Average employment income	16521.65	17214.23	18048.66	21544.91	17328.00	18084.00	18948.00	22392.00	0.95	0.95	0.95	0.96
Employment income	111273.60	115938.10	121558.00	145105.30	106623.83	112652.02	108827.71	130998.93	1.04	1.03	1.12	1.11
Self-employment income	12629.13	14218.97	15184.19	15184.19	11723.16	12508.05	12513.15	9413.57	1.08	1.14	1.21	1.61
Rent income	160.46	214.65	182.77	182.77	256.81	343.55	292.53	212.59	0.62	0.62	0.62	0.86
Investment income	173.61	179.49	185.23	187.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.5-Tax benefit instruments included but not simulated in EUROMOD –  
Number of recipients/ payers (in thousands)

	EUROMOD		External			Ratio				
	2011		2011	2012	2013	2014	2011	2012	2013	2014
<b>Benefits</b>										
Old-age pensions	4102.48		3484.00	3508.00	3418.00	3453.00	1.18	1.17	1.20	1.19
Disability (invalidity) pensions	554.33		834.00	778.00	737.00	708.00	0.66	0.71	0.75	0.78
Survivor pensions	962.62		585.00	575.00	570.00	563.00	1.65	1.67	1.69	1.71
Disability benefit	35.90		1204.58	1200.89	1223.49	1247.27	0.03	0.03	0.03	0.03
Sickness benefit	3.95		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maternity benefit	77.79		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Taxes and Social Insurance contributions</b>										
Property tax	6699.20		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.6-Tax benefit instruments included but not simulated in EUROMOD – Annual amounts (in mil.)

	EUROMOD				External				Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
<b>Benefits</b>												
Old-age pensions	38129.06	38129.06	39653.60	41141.71	39317.54	40212.34	40851.94	43010.57	0.97	0.95	0.97	0.96
Disability (invalidity) pensions	3723.98	3723.98	3872.88	4018.22	5684.54	5274.84	5102.99	4970.16	0.66	0.71	0.76	0.81
Survivor pensions	2734.42	2734.42	2843.75	2950.47	2927.34	3070.50	3180.60	3330.71	0.93	0.89	0.89	0.89
Disability benefit	105.78	106.47	106.34	107.27	1721.10	1727.09	1727.09	1757.46	0.06	0.06	0.06	0.06
Sickness benefit	23.69	24.66	25.69	26.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maternity benefit	454.61	473.25	493.09	516.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Taxes and Social Insurance contributions</b>												
Property tax	1524.79	1576.38	1626.80	1649.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.7-Tax benefit instruments simulated in EUROMOD -Number of recipients/payers (in thousands)

	EUROMOD				SILC	Ratio	External				Ratio			
	2011	2012	2013	2014	2011	2011	2011	2012	2013	2014	2011	2012	2013	2014
<b>Benefits</b>														
Universal child benefit (Child state allowance)	4261.89	4261.89	4261.89	4261.89	2521.59	1.69	3869.18	3825.08	3845.87	3727.86	1.10	1.11	1.11	1.14
Child raising allowance	71.77	71.77	71.77	71.77	3.02	23.78	196.68	160.03	142.17	139.57	0.36	0.45	0.50	0.51
Child raising incentive (Monthly incentive)	118.58	118.58	118.58	118.58	0.00	N/A	10.29	18.89	30.78	33.66	11.53	6.28	3.85	3.52
Complementary family allowance	1089.30	1050.23	1005.39	876.68	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Support allowance for the single parent family	201.81	197.85	188.02	163.26	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Family support allowance	1291.11	1248.08	1193.41	1039.95	1206.90	1.07	325.12	301.59	260.42	247.62	3.97	4.14	4.58	4.20
Social assistance (Guaranteed minimum income)	704.10	666.03	639.46	705.84	993.93	0.71	186.70	192.71	217.11	240.62	3.77	3.46	2.95	2.93
Unemployment benefit	44.91	44.91	44.91	44.91	47.14	0.95	182.54	194.47	199.63	140.96	0.25	0.23	0.22	0.32
Guaranteed minimum pension	583.28	583.28	577.66	568.46	326.86	1.78	619.29	630.43	543.28	495.01	0.94	0.93	1.06	1.15
Money for highschool	142.33	138.56	135.80	131.10	0.00	N/A	120.99	118.42	98.55	79.81	1.18	1.17	1.38	1.64
Heating aid	2962.26	2891.63	2771.76	2545.12	0.00	N/A	1532.58	1217.12	1044.46	1027.95	1.93	2.38	2.65	2.48

Table 4.7-Tax benefit instruments simulated in EUROMOD -Number of recipients/payers (in thousands) - continued

	EUROMOD				SILC	Ratio	External				Ratio			
	2011	2012	2013	2014	2011	2011	2011	2012	2013	2014	2011	2012	2013	2014
<b>Taxes and Social Insurance contributions</b>														
Personal income tax	8255.48	8370.57	8460.18	8593.37	N/A	N/A	7870.46	7983.88	7434.35	7519.99	1.05	1.05	1.14	1.14
Employee social insurance contributions (old-age, invalidity and death)	6735.02	6735.02	6735.02	6735.02	N/A	N/A	6153.27	6229.38	5743.49	5850.26	1.09	1.08	1.17	1.15
Employee unemployment insurance contributions	6735.02	6735.02	6735.02	6735.02	N/A	N/A	6153.27	6229.38	5743.49	5850.26	1.09	1.08	1.17	1.15
Self-employed social insurance contributions (old-age, invalidity and death)	333.29	347.32	354.68	341.67	N/A	N/A	1717.19	1754.51	1690.86	1669.73	0.19	0.20	0.21	0.20
Self-employed sickness insurance contributions	333.29	347.32	354.68	341.67	N/A	N/A	1717.19	1754.51	1690.86	1669.73	0.19	0.20	0.21	0.20
Self-employed accident insurance contributions	333.29	347.32	354.68	341.67	N/A	N/A	1717.19	1754.51	1690.86	1669.73	0.19	0.20	0.21	0.20
Employer social insurance contributions (old-age, invalidity and death)	6735.02	6735.02	6735.02	6735.02	N/A	N/A	6153.27	6229.38	5743.49	5850.26	1.09	1.08	1.17	1.15
Employer unemployment insurance contributions	6735.02	6735.02	6735.02	6735.02	N/A	N/A	6153.27	6229.38	5743.49	5850.26	1.09	1.08	1.17	1.15

Table 4.7-Tax benefit instruments simulated in EUROMOD -Number of recipients/payers (in thousands) - continued

	EUROMOD				SILC	Ratio	External				Ratio			
	2011	2012	2013	2014	2011	2011	2011	2012	2013	2014	2011	2012	2013	2014
<b>Taxes and Social Insurance contributions</b>														
Employer sickness insurance contributions	6735.02	6735.02	6735.02	6735.02	N/A	N/A	6153.27	6229.38	5743.49	5850.26	1.09	1.08	1.17	1.15
Employer accident insurance contributions	6735.02	6735.02	6735.02	6735.02	N/A	N/A	6153.27	6229.38	5743.49	5850.26	1.09	1.08	1.17	1.15
Salary guarantee contribution	5635.07	5635.07	5635.07	5635.07	N/A	N/A	3401.37	3526.59	3573.95	3681.26	1.66	1.60	1.58	1.53
Health insurance contributions paid by employees, self-employed, pensioners etc.	9564.17	9564.81	9786.52	10125.21	N/A	N/A	12773.46	12844.88	12159.35	12243.99	0.75	0.74	0.80	0.83
Social insurance contributions paid on behalf of the unemployed and recipients of sickness and maternity benefits	126.65	126.65	126.65	126.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.7-Tax benefit instruments simulated in EUROMOD -Number of recipients/payers (in thousands) - continued

	EUROMOD				SILC	Ratio	External				Ratio			
	2011	2012	2013	2014	2011	2011	2011	2012	2013	2014	2011	2012	2013	2014
<b>Taxes and Social Insurance contributions</b>														
Health insurance contributions paid on behalf of recipients of child raising allowance, sickness and maternity indemnities and recipients of the guaranteed minimum income	733.57	710.09	686.97	736.33	N/A	N/A	565.92	547.21	558.91	521.14	1.30	1.30	1.23	1.41

Table 4.8-Tax benefit instruments simulated in EUROMOD -Annual amounts (Mil.)

	EUROMOD				External				Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
<b>Benefits</b>												
Universal child benefit (Child state allowance)	2456.41	2456.41	2456.41	2456.41	2834.78	2762.80	2718.49	2684.86	0.87	0.89	0.90	0.91
Child raising allowance	883.76	908.96	939.32	1118.26	2176.42	1760.29	1534.50	1552.48	0.41	0.52	0.61	0.72
Child raising incentive (Monthly incentive)	698.58	698.58	698.58	698.58	20.20	98.02	189.55	207.88	34.59	7.13	3.69	3.36
Complementary family allowance	641.00	617.44	591.17	693.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Support allowance for the single parent family	171.77	169.19	161.55	192.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Family support allowance	812.77	786.63	752.71	885.70	223.29	216.86	215.06	260.68	3.64	3.63	3.50	3.40
Social assistance (Guaranteed minimum income)	1075.13	1020.61	992.34	1227.25	387.03	414.29	536.01	662.89	2.78	2.46	1.85	1.85
Unemployment benefit	90.79	90.95	91.13	107.45	1285.75	884.12	925.89	825.60	0.07	0.10	0.10	0.13
Guaranteed minimum pension	542.46	542.46	468.72	397.79	666.96	678.94	605.92	609.09	0.81	0.80	0.77	0.65
Money for highschool	307.44	299.30	293.32	283.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heating aid	750.70	732.39	701.61	606.65	443.25	343.38	314.30	225.38	1.69	2.13	2.23	2.69

Table 4.8-Tax benefit instruments simulated in EUROMOD -Annual amounts (Mil.)-continued

	EUROMOD				External				Ratio			
<b>Taxes and Social Insurance contributions</b>												
Personal income tax	13361.43	14279.85	15298.28	18961.81	18846.60	20731.40	22512.50	23738.67	0.71	0.69	0.68	0.80
Employee social insurance contributions (old-age, invalidity and death)	11679.96	12169.63	12759.54	15229.38	11329.55	12192.92	12861.70	13575.97	1.03	1.00	0.99	1.12
Employee unemployment insurance contributions	556.37	579.69	607.79	725.53	496.94	561.99	614.14	618.61	1.12	1.03	0.99	1.17
Self-employed social insurance contributions (old-age, invalidity and death)	874.07	952.38	1021.60	1016.98	464.44	538.80	541.50	613.39	1.88	1.77	1.89	1.66
Self-employed sickness insurance contributions	23.74	25.86	27.74	27.62	2.08	1.73	2.08	2.45	11.42	14.97	13.31	11.29
Self-employed accident insurance contributions	26.44	28.75	31.46	34.34	0.02	0.04	0.05	0.06	1507.29	735.08	629.25	572.29
Employer social insurance contributions (old-age, invalidity and death)	23137.44	24107.45	25276.05	30168.68	23432.55	25747.70	27339.80	28656.21	0.99	0.94	0.92	1.05

Table 4.8-Tax benefit instruments simulated in EUROMOD -Annual amounts (Mil.)-  
 continued

	EUROMOD				External				Ratio			
<b>Taxes and Social Insurance contributions</b>												
Employer unemployment insurance contributions	556.37	579.69	607.79	725.53	500.82	561.17	602.31	625.81	1.11	1.03	1.01	1.16
Employer sickness insurance contributions	945.35	984.98	1032.74	1232.75	891.15	941.99	1028.09	1367.55	1.06	1.05	1.00	0.90
Employer accident insurance contributions	166.91	173.91	182.34	217.66	259.99	275.53	282.50	300.81	0.64	0.63	0.65	0.72
Salary guarantee contribution	230.41	240.07	251.71	300.46	195.89	221.05	236.31	248.89	1.18	1.09	1.07	1.21
Health insurance contributions paid by employees, self-employed, pensioners etc.	8091.65	7469.39	7879.11	9278.32	13868.15	14428.44	15102.55	15308.44	0.58	0.52	0.52	0.61
Social insurance contributions paid on behalf of the unemployed and recipients of sickness and maternity benefits	72.01	74.83	79.51	90.55	382.40	267.04	278.81	295.94	0.19	0.28	0.29	0.31
Health insurance contributions paid on behalf of recipients of child raising allowance, sickness and maternity indemnities and recipients of the guaranteed minimum income	106.98	105.59	106.21	126.77	203.83	209.35	179.64	203.32	0.52	0.50	0.59	0.62

Table 4.9-Distribution of equivalised disposable income

	EUROMOD				External				Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
D1	2.60	2.61	2.57	2.47	2.10	2.00	N/A	N/A	1.24	1.31	N/A	N/A
D2	4.35	4.36	4.35	4.11	4.20	4.10	N/A	N/A	1.04	1.06	N/A	N/A
D3	5.70	5.67	5.64	5.48	5.60	5.40	N/A	N/A	1.02	1.05	N/A	N/A
D4	7.02	6.98	6.98	6.79	6.90	6.80	N/A	N/A	1.02	1.03	N/A	N/A
D5	8.22	8.22	8.20	8.03	8.20	8.10	N/A	N/A	1.00	1.01	N/A	N/A
D6	9.51	9.48	9.48	9.43	9.50	9.40	N/A	N/A	1.00	1.01	N/A	N/A
D7	11.01	10.99	11.00	11.03	11.00	10.90	N/A	N/A	1.00	1.01	N/A	N/A
D8	13.05	13.07	13.02	13.10	13.20	12.90	N/A	N/A	0.99	1.01	N/A	N/A
D9	15.86	15.90	15.95	16.20	16.20	16.10	N/A	N/A	0.98	0.99	N/A	N/A
D10	22.68	22.72	22.80	23.37	23.30	24.10	N/A	N/A	0.97	0.94	N/A	N/A
Median	8989.79	9352.09	9750.41	10732.62	8969.00	9213.00	N/A	N/A	1.00	1.02	N/A	N/A
Mean	10213.02	10603.73	11040.60	12364.24	10232.00	10560.00	N/A	N/A	1.00	1.00	N/A	N/A
Gini	31.69	31.76	31.92	33.07	33.20	34.00	N/A	N/A	0.95	0.93	N/A	N/A
S80/S20	5.54	5.54	5.60	6.01	6.30	6.60	N/A	N/A	0.88	0.84	N/A	N/A

Table 4.10-Poverty rates by gender and age

	EUROMOD				External				Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
<b>40% median HDI</b>												
Total	9.32	8.98	9.21	10.39	10.70	10.90	N/A	N/A	0.87	0.82	N/A	N/A
Males	9.82	9.44	9.66	10.59	10.70	11.10	N/A	N/A	0.92	0.85	N/A	N/A
Females	8.85	8.54	8.79	10.19	10.70	10.80	N/A	N/A	0.83	0.79	N/A	N/A
<b>50% median HDI</b>												
Total	15.57	15.85	15.69	16.79	16.50	16.30	N/A	N/A	0.94	0.97	N/A	N/A
Males	16.09	16.14	15.93	16.95	16.20	16.50	N/A	N/A	0.99	0.98	N/A	N/A
Females	15.08	15.57	15.46	16.63	16.80	16.10	N/A	N/A	0.90	0.97	N/A	N/A
<b>60% median HDI</b>												
Total	21.89	21.98	22.31	23.16	22.60	22.40	N/A	N/A	0.97	0.98	N/A	N/A
Males	21.93	21.83	22.13	22.96	21.90	22.30	N/A	N/A	1.00	0.98	N/A	N/A
Females	21.84	22.11	22.48	23.34	23.20	22.50	N/A	N/A	0.94	0.98	N/A	N/A
<b>70% median HDI</b>												
Total	28.48	28.94	29.13	29.85	29.50	30.40	N/A	N/A	0.97	0.95	N/A	N/A
Males	28.09	28.41	28.60	29.19	28.30	29.80	N/A	N/A	0.99	0.95	N/A	N/A
Females	28.85	29.44	29.63	30.47	30.70	30.90	N/A	N/A	0.94	0.95	N/A	N/A
<b>60% median HDI</b>												
0-15 years	32.38	31.99	32.25	31.94	34.00	31.50	N/A	N/A	0.95	1.02	N/A	N/A
16-24 years	29.78	29.52	29.94	30.32	30.80	31.40	N/A	N/A	0.97	0.94	N/A	N/A
25-49 years	21.29	20.93	21.08	21.33	21.80	21.70	N/A	N/A	0.98	0.96	N/A	N/A
50-64 years	15.77	16.26	16.42	17.64	15.70	16.90	N/A	N/A	1.00	0.96	N/A	N/A
65+ years	13.74	15.22	16.26	19.76	15.40	15.00	N/A	N/A	0.89	1.01	N/A	N/A

Table 4.11-Minimum wage validation

	Baseline				Min Wage Incl.				Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Equivalised disposable income	141951.50	147282.50	153353.60	171398.20	141804.90	147099.80	153179.90	171149.20	1.00	1.00	1.00	1.00
Employment income	111273.60	115938.10	121558.00	145105.30	111784.80	116478.20	122189.60	145689.40	1.00	1.00	0.99	1.00
Total income tax	13361.43	14279.85	15298.28	18961.81	13413.51	14337.90	15369.68	19030.79	1.00	1.00	1.00	1.00
Total employee social insurance contributions	12236.33	12749.32	13367.33	15954.91	12292.55	12808.72	13436.81	16019.15	1.00	1.00	0.99	1.00
Total social assistance	1075.13	1020.61	992.34	1227.25	1212.16	1141.01	1111.38	1392.89	0.89	0.89	0.89	0.88
Gini coefficient	31.69	31.76	31.92	33.07	31.88	31.97	32.13	33.30	0.99	0.99	0.99	0.99
Poverty rate (60% median HDI)	21.89	21.98	22.31	23.16	21.91	22.11	22.52	22.98	1.00	0.99	0.99	1.01