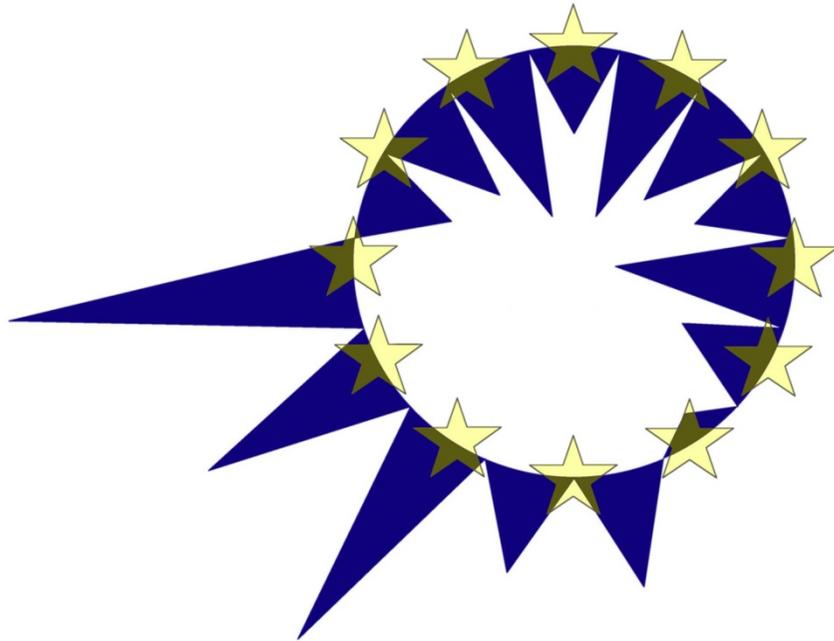


EUROMOD

COUNTRY REPORT



ROMANIA

(2009-2012)

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April 2013



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 27 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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This report accompanies the release of EUROMOD G1.0. There may be minor differences between the results presented here and those obtained with G1.0 due to further improvements since the report was prepared.

For more information, see: <http://www.iser.essex.ac.uk/research/euromod>

This document is supported by the European Union Programme for Employment and Social Solidarity – PROGRESS (2007-2013).

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-27, EFTA-EEA and EU candidate and pre-candidate countries.

PROGRESS mission is to strengthen the EU contribution in support of Member States' commitment. PROGRESS is instrumental in providing analysis and policy advice on PROGRESS policy areas; monitoring and reporting on the implementation of EU legislation and policies in PROGRESS policy areas; promoting policy transfer, learning and support among Member States on EU objectives and priorities; and relaying the views of the stakeholders and society at large

For more information see: <http://ec.europa.eu/progress>

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 figures

Table 1.1 Basic figures

	Pop. (m.) ^[1]	Pop. < 18 (%) ^[8]	Pop. ≥ 65 (%) ^[2]	Life expect. (years) ^[3]	Fertility rate ^[4]	Unemp. Rate (ILO) ^[5]	GDP per head (PPP) ^[6]	Currency	
								Name	exch. rate ^[7]
2009	21.49	21.29	14.9	73.33	41	6.9	47	Lei	4.2067
2010	21.46	20.57	14.9	73.47	39.4	7.3	47	Lei	4.3688
2011	21.41	N/A	N/A	N/A	N/A	N/A	49	Lei	4.2341
2012	21.35	N/A	N/A	N/A	N/A	N/A	N/A	Lei	4.4494

Source:

^{[1], [2], [6]} Eurostat online database, last accessed August 2012

^{[3], [4], [5]} Romanian Statistical Yearbook, 2011

^[7] Euro exchange rate on 30th of June

^[8] Romanian Statistical Yearbook, 2011 (<19 years)

N/A-not available

1.2 The tax-benefit system

Table 1.2 Tax-benefit system and government budget

	Total general government revenue % of GDP	Total tax receipts ^[1] % of GDP	Total general government expenditure % of GDP	Social benefits % of GDP (other than social transfers in kind)
2009	32.1	27.7	41.1	12.7
2010	33.4	28.1	40.2	13
2011	32.5	N/A	37.7	11.5
2012	N/A	N/A	N/A	N/A

Notes: ^[1] Total receipts from taxes and social contributions (including imputed social contributions) after deduction of amounts assessed but unlikely to be collected; N/A-not available.

Source: Eurostat online database, last accessed August 2012.

Table 1.3 Social protection expenditure by function (as % of total benefits)

	Sickness/ health care	Disability	Old age	Survivors	Family/ children	Unemployment	Housing	Social exclusion
2009	24.588	9.589	47.385	4.661	10.043	2.379	0.138	1.213
2010	25.538	9.145	46.22	4.492	9.637	3.241	0.128	1.590
2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: N/A-not available

Source: Eurostat online database, last accessed December 2012

Table 1.4 Taxation (as % of total tax receipts)^[1]

	Personal income tax	Corporate income tax	Social security contributions		Taxes on goods and services	Other taxes
			Employees*	Employers		
2009	7.315	24.686	0.351	0.502	65.454	0.224
2010	6.217	19.275	0.307	0.389	72.702	0.077
2011	N/A	N/A	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A	N/A	N/A

Notes: ^[1] Fiscal revenue and social contributions

* Includes self-employed

N/A-not available

Source: Romanian Statistical Yearbook, 2011

1.2.1 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 (1st of January – 31st of December).
- In June 2009 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. 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 as a share of 10% of the gross income 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 1st 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. The benefits’ indexation is operated by Government Decisions.
- In 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 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.

1.3 Social Benefits

1.3.1 Pensions

Romania has a three pillar based pension system:

1st 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.

2nd pillar: mandatory private contributions; compulsory for employed individuals under 35 years and voluntary for individuals aged between 36 and 45 years; contribution rate: 2% of gross wage (carved down from the public social insurance contribution rate).

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

Pension calculation

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 39% of the national average gross salary (2010). The entire contribution record of the insured person is taken into account. Starting with the 1st of January 2011 the pension point has a value of 732,8 lei (*Law no. 263/2010*); it has not been increased until 2012.

The *minimum length of contribution career* is 15 years (2013) (gradually increasing from 10 years in 2000) while the *full length of contribution career* is 35 years for both women and men (2030) (gradually increasing from 25, respectively 30 years).

The *standard statutory retirement age* is 65 for men and 63 for women to be attained in 2030, by gradually increasing the retirement ages of 57 for women and 62 for men in 2000.

These evolutions during 2009 – 2012 are presented in the Table below (Table 1.5).



Table 1.5 Evolution of retirement ages between 2009 and 2012

Period	Women			Men		
	Age of the insured persons at the moment of retiring Years/Months	Complete length of contribution career Years/Months	Minimum length of contribution career Years/Months	Age of the insured persons at the moment of retiring Years/Months	Complete length of contribution career Years/Months	Minimum length of contribution career Years/Months
Apr. 2009 – Jul. 2009	58/7	27/2	12/2	63/7	32/2	12/2
Aug. 2009 – Nov. 2009	58/8	27/4	12/4	63/8	32/4	12/4
Dec 2009 – Mar. 2010	58/9	27/6	12/6	63/9	32/6	12/6
Apr. 2010 – Jul. 2010	58/10	27/8	12/8	63/10	32/8	12/8
Aug. 2010 – Nov. 2010	58/11	27/10	12/10	63/11	32/10	12/10
Dec 2010 – Mar. 2011	59	28	13	64	33	13
Apr. 2011 – Jul. 2011	59/1	28/2	13/2	64/1	33/2	13/2
Aug. 2011 – Nov. 2011	59/2	28/4	13/4	64/2	33/4	13/4
Dec 2011 – Mar. 2012	59/3	28/6	13/6	64/3	33/6	13/6
Apr. 2012 – Jul. 2012	59/4	28/8	13/8	64/4	33/8	13/8
Aug. 2012 – Nov. 2012	59/5	28/10	13/10	64/5	33/10	13/10
Dec. 2012 – Mar. 2013	59/6	29	14	64/6	34	14

The pension rights are calculated according to the following formulas:

$$AAS = \frac{\sum_{i=1}^l AS}{FCL}, \text{ where AAS is the annual average score,}$$

AS is the annual score,

FCL is the statutory full contribution career length.

$$AS_i = \frac{S_i}{12}, \text{ where } S_i \text{ is the score of year } i.$$

$$S_i = \sum_{j=1}^{12} MS_j, \text{ where } MS_j \text{ is the monthly score, calculated as}$$

$$MS_j = \frac{GW_j}{SAGW}, \text{ where } GW_j \text{ is the monthly gross wage and SAGW is the average gross wage as estimated by}$$

the National Institute of Statistics and used in the social insurance budget.



The amount of the pension is given by multiplying the annual average score by the value of a pension point.

Old-age pension (Pensia pentru limită de vârstă)

Retirement age: 65 years for men and 63 years for women (2030, according to Law no. 263/2010). Minimum length of contribution career is required. A person who is eligible for old age pension may continue his professional activity conditional on the employer's agreement.

The statutory retirement age and the full length of 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; the special working conditions are considered: mining; exploring, exploitation and manufacturing of nuclear raw materials for the 1st and 2nd 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, the statutory retirement age can be reduced with up to 8 years. If the contribution career in special working conditions is longer than 26 years, the statutory retirement age can be reduced with 13 years. If the contribution length for special working condition in mining is longer than 20 years, the statutory retirement will be reduced with 20 years. For special conditions in certain artistic activities, for a contribution career of 20 years, the statutory retirement age is reduced by 15 years. For special conditions in exploring, exploitation and manufacturing nuclear raw materials for the 1st and 2nd degree exposure to radiations, the reduction in contribution career is 15 years (1st degree) and 17 years (2nd degree) and there are no statutory retirement age requirements.

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: Survivor 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 is in 1st or 2nd 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 1st, 2nd and 3rd 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 1st 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.

1.3.2. Unemployment benefit (Indemnizația de șomaj)

Basic legislation applied 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 14th 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 LEI used in assessing the monetary social benefits. The quantum of the reference social indicator was established for 500 lei 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.

1.3.3. 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 of 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 6th 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).

1.3.4. 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). In 2009 the amount was 200 Lei for children below the age of two or three (if disabled or with HIV/AIDS). For children above that age the amount was 25 lei or 50 lei if disabled.

Starting with the 1st of January 2012 the quantum of the state allowance is established based on a reference social indicator (ISR):

- 0,4 ISR for children aged below 2 (or 3 in case of disabled children),
- 0,084 ISR for children with ages between 2 and 18 (even above 18 when attending high school or vocational education),
- 0,168 ISR for disabled children with ages between 3 and 18.

The ISR level established for 2012 is of 500 lei.

Complementary family allowance (Alocația familială complementară) is a means tested benefit granted monthly as a support to poor families with children (up to the age of 18). The income threshold depends on the number of persons in the family,

The Law no. 277 / 2010 that came into effect starting with the 1st of January 2011 introduced the Family **Support Allowance (Alocația pentru susținerea familiei)** that substitutes to the Complementary family allowance (repeals the legal frame of the Complementary family allowance).

Support allowance for mono-parental family (Alocația de susținere pentru familia monoparentală) is a means tested benefit granted monthly as a support to poor mono-parental families.

The Law no. 277 / 2010 regarding the **Support Allowance for family (Alocația pentru susținerea familiei)** repeals the legal frame of the Support allowance for mono-parental family. The new Law sets different amounts corresponding to two income thresholds.

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 has been providing care for a young child and 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.

Financial aid for family set up (Sprijinul financiar la constituirea familiei) is given when both spouses are getting married for the first time and are resident in Romania. It can be given to stateless persons and foreign citizens that benefit from a form of protection in Romania. Quantum: 200 Euros, in Lei equivalent, based on the exchange rate on the day of the application. It is not means tested. The quantum remained unchanged between 2009 and July 2010. On the 3rd of July 2010 the law was repealed.

Allowance for new born children (Alocația pentru copiii nou născuți) is a benefit designed to support the set up of the newborn child into the family

The beneficiary is the mother or the child's legal representative when the mother is not in the position to benefit from this right. It is given both to Romanian citizens and to stateless persons and foreign citizens that benefit from a form of protection in Romania, with Romanian residence. The allowance is granted for the first four children born alive. In the 3rd of July 2010 the law was repealed.

The outfit for newborn children (Trusoul pentru nou născuți) is a non means tested benefit consisting in a trousseau including clothing, linen and care products, given to each newborn child. It is granted only once by the local public administration authorities, when the child leaves the maternity or when the childbirth certificate is released. The law regulating this benefit was repealed from the 3rd of July 2010.

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. There were no significant changes regarding this benefit during 2009 – 2012.

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. There were no significant changes regarding this benefit during 2009 – 2011 (in the first quarter of 2012 no financial aid was awarded).

Home heating aid (Ajutorul pentru încălzirea locuinței) is given as a support for poor families that 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 1st and March 31st 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 in 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 system for 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, no 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 law as guaranteed minimum income and the net monthly income of the family or single person.

The income of the family is taken to consideration in assessing the right to this benefit. The means are tested through social inquiry.

Families and single persons with net monthly incomes up to the level of the guaranteed minimum income receive 15% increase in the amount of social assistance per family, if at least one family members works under an individual labour contract, has the status of civil servant or obtains salary income.

The guaranteed minimum income was subject to essential changes during 2009-2012:

1. Modifications of the amounts of the guaranteed minimum income. After the 1st of January 2012, the monthly level of the guaranteed minimum income was established based on a reference social indicator (ISR). The ISR level established for 2012 is of 500 lei.



2. Adjustments of the difference between family revenues and the minimum income thresholds (before July 2009, if the difference between the threshold and the family revenue was less than 5 Lei, then the social aid granted would be 5 Lei; after July 2009 if the difference between the threshold and the family revenue was less than 10 Lei, then the social aid granted would be 10 Lei).

3. From 2008, some scholarships, grants and social support for students in the program “money for school” are excluded from the net monthly income of the family that determines the access to this benefit.

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 the 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 school” (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 classes’ education, in high school or vocational school 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.

Scholarships (Burse)

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.



Social grants are given to the following categories of students in public pre-university education:

- orphans or children suffering from certain diseases,
- children studying in secondary schools in rural areas in a different locality than the one where they have residence and for whom a meal cannot be ensured;
- children from families with an average monthly net income per family member, for the past 12 months, of less than 50% of the national statutory net minimum wage that do not own agricultural land or the surface of the land is below some thresholds;
- occasionally, social grants may be given to children that come from families with the net monthly income per family member below 75% of the national statutory minimum wage;
- children attesting for themselves or for one of their parents the title of “martyr hero” or “fighter for the victory of the Romanian Revolution of December 1989”, with one of the mentions: injured, detained, injured and detained, remarked during special events.

The social grants are paid to university students from poor families, if they do not receive a scholarship or a merit scholarship. Social grants are awarded to the following categories of university students:

- students attesting for themselves or for one of their parents the title of “martyr hero” or “fighter for the victory of the Romanian Revolution of December 1989”, with the one of the mentions: injured, detained, injured and detained, remarked during special events;
- students that are orphans, from orphanages or foster care;
- students suffering from certain diseases;
- students whose families did not earn in the last three months prior to application an average monthly net income per family member above the national statutory minimum wage.

The amount of social assistance grant is established by the boards of the county school inspectorates or by the university senates. University senates may establish differentiated specific criteria for awarding the social grant.

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 1st, 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.

- *Scope and scale*

Table 1.6 Social benefits: recipients (as % of population)

	2009	2010	2011	2012
Old-age pension	15.086	15.44	15.687	N/A
Early retirement pension	0.041	0.041	0.042	N/A
Early partial retirement pension	0.521	0.573	0.585	N/A
Survivors' pension	0.037	0.027	0.028	N/A
Invalidity pension	4.233	4.138	3.905	N/A
Unemployment benefit (end of the year)	3.304	2.925	2.159	N/A
State allowance for children % of the monthly average number of beneficiaries in the total population	18.109	18.162	18.119	N/A
Complementary family allowance % of the monthly average number of beneficiaries in the total population	2.555	2.821	N/A	N/A
Support allowance for mono-parental family % of the monthly average number of beneficiaries in the total population	0.903	0.936	N/A	N/A
Support allowance for family % of the monthly average number of beneficiaries in the total population	N/A	N/A	1.522	N/A
Allowance for family placement % of the monthly average number of beneficiaries in the total population	0.212	0.204	0.200	N/A
Indemnity for child rising % of the monthly average number of beneficiaries in the total population	0.845	0.917	0.921	N/A
Incentive for child rising % of the monthly average number of beneficiaries in the total population	0.068	0.046	0.048	N/A
Financial aid for family set up % of the number of beneficiaries in the total population	0.437	0.196	N/A	N/A
Allowance for new born children % of the monthly average number of beneficiaries in the total population	0.916	0.601	N/A	N/A
The outfit for newborn children % of the number of beneficiaries in the total population	0.942	0.697	N/A	N/A
Emergency benefits % of the number of granted benefits in the total population	0.173	0.255	0.365	N/A



Financial benefits				
<i>% of the number of granted benefits in the total population</i>	0.000	0.000	0.000	N/A
Home heating aid recipients as % of total population	16.825	15.676	7.177	N/A
Benefits for refugees				
<i>% of the monthly average number of beneficiaries in the total population</i>	0.000	0.000	0.000	N/A
The aid for the purchase of automated burning recipients as % of total population	N/A	N/A	N/A	N/A
Monthly allowance for the adult with severe visual disability. designated for the payment of the attendant				
<i>% of the monthly average number of beneficiaries in the total population</i>	0.210	0.210	0.208	N/A
Monthly allowance for adults with severe and marked disabilities				
<i>% of the monthly average number of beneficiaries in the total population</i>	2.451	2.553	2.544	N/A
Complementary personal budget for adults with disabilities				
<i>% of the monthly average number of beneficiaries in the total population</i>	2.960	3.096	3.097	N/A
The guaranteed minimum income				
<i>% of the monthly average number of beneficiaries in the total population</i>	1.032	1.084	0.874	N/A
Aid for partial covering of funeral expenses				
<i>% of the number of granted benefits in the total population</i>	0.025	0.022	0.012	N/A
Monthly allowance of food for children and adults infected with HIV or AIDS				
<i>% of the monthly average number of beneficiaries in the total population</i>	0.030	0.032	0.034	N/A
Contribution for health insurance for the beneficiaries of the indemnity for child rising				
<i>% of the monthly average number of beneficiaries in the total population</i>	0.858	0.933	N/A	N/A

Notes: N/A-not available

Sources: Ministry of Labour, Family and Social Protection, www.mmuncii.ro
National Institute of Statistics. www.insse.ro – Tempo database



Table 1.7 Social benefit: expenditure (% of GDP)

	2009	2010	2011	2012
Annual expenditure (Lei)				
	as % of GDP			
Unemployment benefit	0,346	0,465	0,222	N/A
State allowance for children	0,578	0,558	0,490	N/A
Complementary family allowance	0,081	0,085	N/A	N/A
Support allowance for mono-parental family	0,036	0,036	N/A	N/A
Support allowance for family	N/A	N/A	0,039	N/A
Allowance for family placement	0,011	0,011	0,009	N/A
Indemnity for child rising	0,347	0,423	0,376	N/A
Incentive for child rising	0,004	0,002	0,003	N/A
Financial aid for family set up	0,016	0,007	0,000	N/A
Allowance for new born children	0,009	0,006	N/A	N/A
The outfit for newborn children	0,006	0,004	0,000	N/A
Emergency benefits	0,0033	0,0056	N/A	N/A
Financial benefits	0,0003	0,0003	0,0002	N/A
Home heating aid	0,098	0,164	0,077	N/A
Benefits for refugees	0.000	0.000	0.0000	N/A
The aid for the purchase of automated burning	N/A	N/A	N/A	N/A
Monthly allowance for the adult with severe visual disability. designated for the payment of the attendant	0,0485	0,0508	0,0472	N/A
Monthly allowance for adults with severe and marked disabilities	0,220	0,223	0,200	N/A
Complementary personal budget for people with disabilities	0,107	0,109	0,098	N/A
The guaranteed minimum income	0,083	0,092	0,067	N/A
Aid for partial covering of funeral expenses	0,00042	0,00042	0,00025	N/A
Monthly allowance of food for children and adults infected with HIV or AIDS	0,0061	0,0062	0,0059	N/A



Contribution for health insurance for the beneficiaries of the indemnity for child rising	0,019	0,023	0,021	N/A
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Notes: N/A-not available

Sources: Ministry of Labour, Family and Social Protection, www.mmuncii.ro
National Institute of Statistics. www.insse.ro – Tempo database

1.4 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. Social insurance contribution is not due by self-employed (except for income from author's rights in 2010) who are also employees. On a voluntary basis, other categories of individuals than employees or self-employed, individuals who are not benefiting from social insurance rights or are not insured in other non-public social insurance systems, have the right to become insured. Also the mandatorily insured persons have the right to supplementary social insurance to increase their insured income.

The individuals who pay the social insurance contribution are entitled to social insurance benefits in case of the following insured risks: old-age, invalidity or death.

The *total social insurance contribution rate* is differentiated by working conditions, which can be *normal, unusual and special* and is approved by the *Law on Social Insurance Budget* on annual basis.

Unusual working conditions are those that can permanently affect in certain periods the working capacity of the insured person because of the high risk exposure (physical, chemical and biological occupational hazards such as noise, radiation, vibration, electromagnetic waves, etc. which produce effects on health and the workplaces are associated to certain morbidity rates). Special working conditions are considered: mining; exploring, exploitation and manufacturing nuclear raw materials for the 1st and 2nd degree exposure to radiations, civil aviation, and certain artistic activities.

The *individual employee contribution* is also set annually by the *Law on Social Insurance Budget*, while the employer pays the difference between the total and the individual contribution rate. Beginning in May, 2008, 2% of the individual social insurance contribution for employees is directed to the mandatory private pension system (2nd pillar) – increased to 3% in 2011 and 3.5% in 2012.

The self-employed and the voluntarily insured pay the total social insurance contribution rate. From July 1, 2010 there is one exception regarding the contribution rate for self-employed: for income from author's right the self-employed pay the individual social insurance contribution rate.

The base for the calculation of social insurance contribution is the total gross wages at company level for employers (in 2011 and 2012 there is an upper threshold established at the value of 5 average gross wages multiplied by the number of employees), the gross wage for employees (in 2011 and 2012 there is an upper threshold established at 5 average gross wages), the insured income for self-employed (except for income from author's rights; in this case the gross income is the tax base), also with the upper limit of 5 average gross wages and the statutory minimum wage for beneficiaries of health insurance benefits (indemnity for work incapacity, except for work accidents and professional disease to which social insurance contribution is not due, maternity allowance, indemnity for maternal risk) and the total fund of unemployment benefits for the National Employment Agency. In the case of the above-mentioned health insurance benefits, the total contribution rate is due, divided between the beneficiary and the employer; while for the unemployment benefit recipients the National Employment Agency pays the individual contribution rate. For self-employed, the decision regarding the amount of the insured income belongs to the insured person (inside the



thresholds) and is declared through an insurance statement (“declarație de asigurare”) which the self-employed has to fill in at the territorial Pension House.

In 2009 there is no upper threshold for the social insurance contribution base. After July 1, 2010 for professional income from independent activities (self-employed), the social contribution base is limited again to five national average gross wages and this is also the upper limit for employee and employer contributions in 2011 and 2012.

In 2007, the social insurance contribution base for self-employed had a lower threshold: one quarter of the forecasted (by the National Institute of Statistics) gross average wage (threshold: 318 Lei). In 2011 and 2012, the lower limit of the income base for the calculation of the social insurance contributions is set to 35% of the national average gross wage (provisional figure used for building the social insurance budget) – thus 709 Lei in 2011 (in 2011 the national average wage was set to 2022 Lei) and 741 Lei in 2012 (in 2012 the national average wage is 2117 Lei). If the gross annual income obtained from independent activities is below the threshold of four national average wages (thus 8088 Lei in 2011 and 8468 Lei in 2012) then social insurance contribution is not due.

The social insurance contribution is not payable for the self-employed that also has a status of employee or pensioner.

The social insurance contribution is not levied on social insurance benefits, employees’ participation to company profit, daily allowances and author’s rights for policy year 2009. From 2010, the individual (employee) contribution rate is due for author’s rights.

The contribution is collected in the social insurance budget.

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 1st, 2010 the unemployment insurance contribution is compulsory for self-employed for income received as a result of author’s 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 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 author’s 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. 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 in education 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; no income earner 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. 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 trafficking of human beings; (g) expelled; (h) family members of guaranteed minimum income recipients. The contribution rates and contribution base for the above categories are as follows: 5.5% of double the statutory minimum wage in 2009 - 2012 for (a), (c), (d), (f), (g); 5.5% from the unemployment benefit for (e); 5.5% from the indemnity for work incapacity (b); 5.5% from the social benefit received for (h). 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)).



Pensioners with a pension level less than the personal deduction from the personal income tax (900 Lei) did not pay health insurance contribution in 2007, but beginning from 2008, health insurance contribution was levied on all pensions, until 2011.

The health insurance contribution rate (5.5% in 2009 - 2012) is levied on the total gross wages paid for employers, on the gross wage for employees, on taxable income (or non-taxable income if there is no taxable income) – but the taxable income cannot have value lower than minimum national gross wage - and on gross income from author's rights for self-employed (from July 1, 2010) – in 2011 and 2012 only if the income from author's rights is the only source of income, on the unemployment benefit for unemployed, the total gross pension for 2009 and 2010, while in 2011 only pensioners that have pensions above 740 Lei pay this contribution as 5,5% of the quantum of gross pension and in 2012 the percentage is applied to the difference between the pension amount and the threshold of 740 Lei – OUG no. 17/ 2012). Income from real estate rental, dividend and interest, intellectual property is subject to health insurance contribution only if it represents the only income source of the insured person.

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 employer 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 destination is towards 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 in insolvency procedure. 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.



Table 1.8 Social contribution rates, 2009 – 2012

Type of contribution	% of contribution base*			
	2009	2010	2011	2012
social insurance	employer: 18.5%, 23.5%, 28.5% and 20.8%, 25.8%, 30.8% ****	employer: 20.8%, 25.8%, 30.8%	employer: 20.8%, 25.8%, 30.8%	employer: 20.8%, 25.8%, 30.8%
	self-employed: 28%, 33%, 38% and 31.3%, 36.3%, 41.3%	self-employed: 31.3%, 36.3%, 41.3%	self-employed: 31.3%, (for author's rights: 10.5%)	self-employed: 31.3%, (for author's rights: 10.5%)
	employee: 9.5%	employee: 10.5%	employee: 10.5%	employee: 10.5%
	employer: 0.5%	employer: 0.5%	employer: 0.5%	employer: 0.5%
unemployment insurance	employee: 0.5%	employee: 0.5%	employee: 0.5%	employee: 0.5%
	self-employed: 1%	self-employed: 1% (for author's rights: 0.5%)	self-employed: 1% (for author's rights: 0.5%)	self-employed: 1% (for author's rights: 0.5%)
	employee: 5.2%	employee: 5.2%	employee: 5.2%	employee: 5.2%
	employee: 5.5%	employee: 5.5%	employee: 5.5%	employee: 5.5%
health insurance	self-employed: 5.5%	self-employed: 5.5%	self-employed: 5.5%	self-employed: 5.5%
	employer: 0.85%	employer: 0.85%	employer: 0.85%	employer: 0.85%
	self-employee: 0.85%	self-employed: 0.85%	self-employed: 0.85%	self-employed: 0.85%
medical leave and indemnities health insurance contribution	employer: 0.15 – 0.85 %	employer: 0.15 – 0.85 %	employer: 0.15 – 0.85 %	employer: 0.15 – 0.85 %
	self-employed: 1%	self-employed: 1%	self-employed: 1%	self-employed: 1%
insurance for work accidents and professional disease				



Scope and scale

Table 1.9 Social contributions: % of annual revenue

	2009	2010	2011
Health insurance contributions as % of the total revenue of the National Fund of Health Insurance			
Health insurance contributions	93.924	76.214	N/A
<i>Employers contributions</i>	46.721	37.792	N/A
Contributions from employers or self employed with employees	40.586	32.312	N/A
Health insurance contributions due by unemployed	0.558	0.790	N/A
Contributions for leaves and indemnities from employers or self-employed	5.529	4.617	N/A
Contributions for leaves and indemnities due by unemployed	0.031	0.038	N/A
<i>Insured persons contributions</i>	46.645	37.874	N/A
Employees contributions	43.329	34.603	N/A
Other insured persons' contributions	1.641	1.615	N/A
Insured persons' contributions for leaves and indemnities	0.018	0.016	N/A
Pensioners' contribution	1.656	1.640	N/A
Optional contributions	0.014	0.012	N/A
Other contributions due by insured persons	0.544	0.535	N/A
Social Insurance Contributions as % of the total revenue of the Social Insurance Budget			
Social Insurance Contributions	81.367	74.188	N/A
Employers contributions	56.314	51.887	N/A
Employers social insurance contributions	55.516	51.305	N/A
Employers insurance contributions for labour accidents and professional diseases	0.797	0.582	N/A
Insured persons' social insurance contributions	27.344	24.859	N/A
Other insured persons' contributions	0.944	0.943	N/A
Facultative contributions	0.027	0.027	N/A



Unemployment Insurance Contributions as % of the total revenue of the Unemployment Insurance Budget			
Unemployment Insurance Contribution	94.075	76.905	27.128
Employers contributions	53.621	44.647	15.830
Employers contributions to the salary payment guarantee fund	13.229	12.198	4.451
Insured persons contributions	40.455	32.258	11.298
Contributions due by insurance contract	2.043	0.017	0.007

Note: N/A-not available.

Source: Activity reports from the National Health Insurance House for 2009 and 2010 (for the Health Insurance Contribution)
Social Insurance Budget execution, Statistical Yearbook 2011 (for Social Insurance Contribution)
Unemployment Budget execution for 2009, 2010 and 2011, www.anofm.ro (for Unemployment Contributions)

1.5 Taxes

The Romanian tax system has undergone some major changes beginning in 2000, when the tax reform that started 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.

1.5.1 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. The taxable income for individuals who have residence and live in Romania includes all income earned in Romania or abroad. For the individuals who have residence, but not live in Romania, the taxable income includes only the income earned on the Romanian territory, with two exceptions: (1) the center of person's vital interests is placed in Romania and (2) the person lives in Romania for at least 183 days per year, if one of these two conditions is fulfilled for at least 3 consecutive years, in which case the taxable income includes also income earned in Romania and abroad, starting with the 4th fiscal year.

The income categories that are subject to personal income tax are:

- income from independent activities,
- income from dependent activities (salary or wage),
- income gains from real estate rental,
- income gains from investments,
- pensions and temporary work incapacity benefit,
- income gains from property transfers,



- income from agricultural activities,
- income from gambling and prizes,
- other income.

Personal income tax free income categories are:

- 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 1st degree of invalidity, benefits for war invalids.
- Income for damages suffered, either received from insurances of any type or from other sources, including moral prejudice.
- The income equivalent of coupons which are freely allotted 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 3rd degree at most and between spouses; inheritance, if the succession is finalized in maximum 2 years from the moment of decease.
- 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 medalled at European, World and Olympic championships.

The taxable period is equivalent to the fiscal year which corresponds to the calendar year. The flat rate of 16% is applied on the income tax base by income source.

The revenues are collected to the state budget, with the exception of 50% from the tax on real estate property transfer which goes to the local budgets.

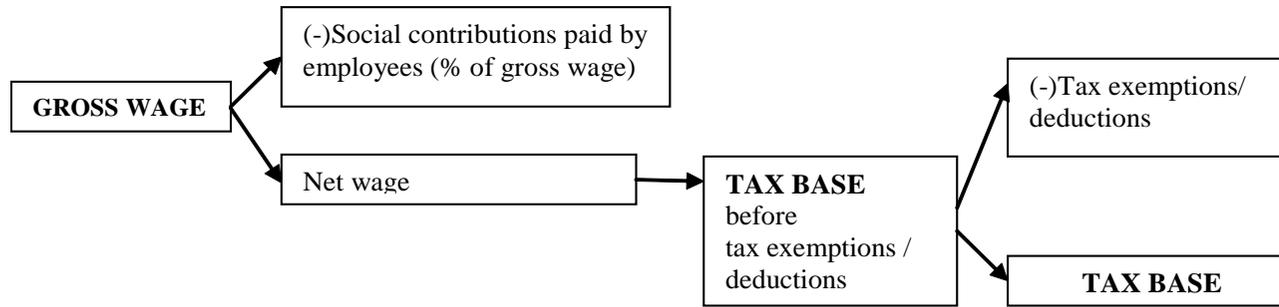
As it follows, we shall detail the calculation of the *tax base* for each category of income which is subject to personal income taxation.

Income from dependent activities (employees)

For the main activity: The tax base is the difference between the net wage and personal deductions and exemptions (Fig 1).



Fig. 1



The following exemptions may be deducted from the tax base:

- *Personal deduction.* Beneficiaries of *personal deduction* are the taxpayers who have a monthly gross wage under or equal to 3000 Lei. The personal deduction is applied only on wages and only at the main job or activity. The amount of the deduction is 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

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 (Order of the Finance Minister No. 1016/2005):

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

The *dependent person* can be the spouse, children or other family members, relatives up to the 2nd 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. If one person is dependent to more than one taxpayer, the personal exemption is allotted to only one of the taxpayers, according to the parties' wish.

- *Trade union fee.*
- *Contributions to private voluntary pension schemes*, if the annual contribution does not exceed the equivalent in Lei of 400 Euro (equivalent to policy years 2009 - 2012).
- *Savings in collective systems for dwelling expenses.* The exemption limit is 300 Lei per year.

For secondary activities: The tax base is calculated as the difference between the gross wage and compulsory social contributions.

The personal income tax is paid monthly by the employer.

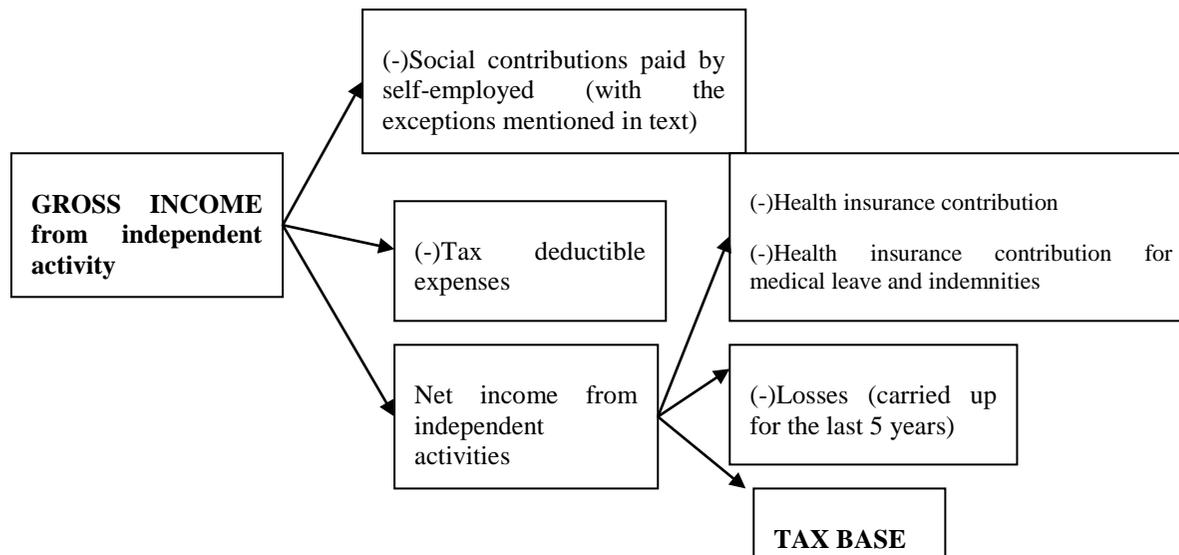
Income from independent activities (self-employed)

Income from independent activities includes: commercial income, income from liberal professions, income from intellectual property, earned individually or in association.

The net income from independent activities (net gain) is the difference between the gross income from independent activity, tax deductible expenses and social contributions (except for the health insurance contribution, medical and leave indemnities health insurance contribution and work accidents and professional disease insurance contribution) paid by self-employed.

The tax base (taxable income) from independent activities is the difference between the net income from independent activities (net gain) and health insurance contribution, health insurance contribution for medical leave and indemnities, work accidents and professional disease insurance contribution and also the carried up losses for the last five fiscal years, if the case, as well (see Fig. 2).

Fig.2





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 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.

Also as a rule, net income from intellectual property rights can be calculated, if the taxpayer wishes, as the difference between the gross income and a 40% (or 50% if the income is payment for creation of monumental art works) of gross income as deductible expenses and social contributions (policy year 2009). Beginning from July 2010, the share of the above mentioned deductible expenses decrease to 20%, respectively 25% (including in 2012). Net income from intellectual property rights may be calculated based on registered expenses as well.

The personal income tax for independent activities is paid on yearly basis.

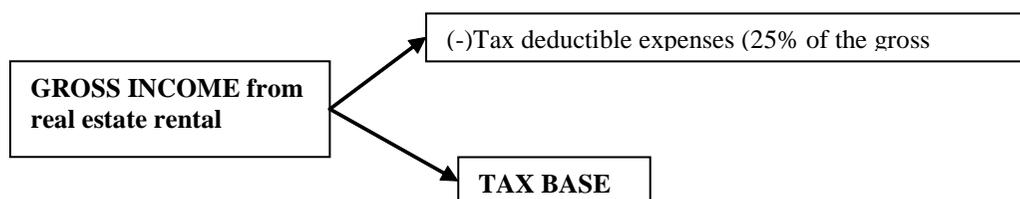
Some income categories from independent activities, such as income from intellectual property rights, income from activities regulated by civil conventions (under the Civil Code), income from technical, accounting and legal expertise are taxed at source as a share of 10% of the gross income paid. This is considered anticipated tax payment. At the end of the 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 1st 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”.

Income from real estate rental

The net taxable income (tax base) is calculated as the difference between the gross income from real estate rental and a 25% of the gross income which represents deductible expenses. Taxpayers can choose to deduct the real expenses in which case they have to do their bookkeeping (see Fig. 3).

Fig. 3



The personal income tax for real estate rental is paid on yearly basis.

Income from investments



Income from investments includes dividends, gains from capital investments, interests, foreign exchange operations and income from company liquidation. Until July 2010, gains from interests at current accounts and deposits constituted for savings in collective system for dwelling expenses were exempted from taxation.

From 2009, if the dividends are reinvested for employment they are not subject to taxation.

The tax base is represented by the net gain from investments.

With the exception of dividends and gains from interests which are due monthly, income from investments is taxed quarterly.

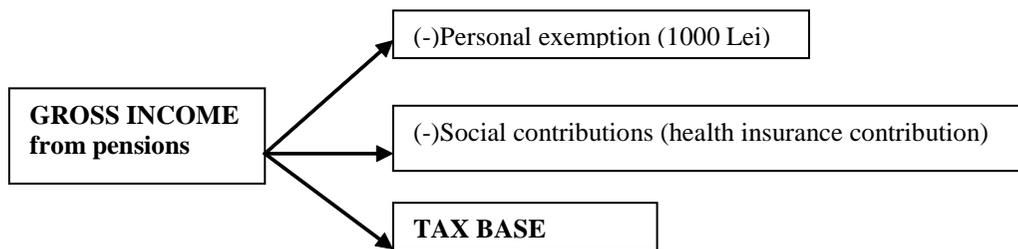
Income from pensions

All income from pensions, earned either in public or private, mandatory or voluntary system is subject to personal income tax. Beginning from May 2010, pensions of severe and accentuated disabled individuals are not taxed by exception.

The tax base is the difference between the gross income and mandatory social contributions and the personal deduction of 1000 Lei (for policy years 2008 - 2012) (see Fig. 4).

The tax on pensions is paid on a monthly basis.

Fig. 4



Income from temporary work incapacity benefit

The temporary work incapacity benefit is subject to personal income tax. The net benefit is calculated by subtracting the 16% tax rate from the gross benefit amount. No social contributions are levied on temporary work incapacity benefit.

Income from agricultural activities

The income from agricultural activities is calculated based on income norms on area unit, issued yearly by the territorial branches of the Ministry of Agriculture and approved by the Ministry of Finance or else, the taxpayer has the option of bookkeeping and registering real income.

The tax base is the net income calculated on the basis of income norms or else, the difference between income and expenses.

The tax on income from agricultural activities is paid on yearly basis.



Income from gambling and prizes

The tax base is the difference between the gain from prizes and gambling and an exemption of 600 Lei per prize and gain at gambling at the same organizer or payer during one day.

We have an exception from the tax rate of 16% in the case of income from gambling which was taxed at a 20% rate for amounts up to 10000 Lei and 25% else. From July 2010, the rate was set to 25%, irrespective of the income amount.

Income from real estate property transfer

The tax rate is differentiated according to the number of years passed from the moment the property was originally acquired. So, if the building or land is transferred in three years from the original accrual the tax is 3% on the transfer value if this does not exceed 200,000 Lei; and 6,000 Lei plus 2% for the difference between the transfer value and 200,000 Lei for transfer values higher than 200,000 Lei. If the real estate is transferred after more than three years from the original accrual the tax is as follows: 2% up to 200,000 Lei and 4000 Lei plus 1% from the difference between the transfer value and the threshold of 200,000 Lei.

Real Estate Taxes (Impozite și taxe pe proprietate)

The real estate taxes consist of tax on buildings and tax on land. These taxes are collected by municipalities.

Building tax is levied on all buildings in Romania, except for state-own buildings, buildings own 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 own 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, sewerage, electrical and heating installation), geographical elements (the rank of the municipality and the location within the municipality). The taxable value thus calculated is then reduced by a percent corresponding to the age of the building: 20% for a more than 50 years old buildings, 10% for a building which was built between 30 and 50 years ago.

If the building is used for dwelling and has more than 150m², the taxable value is multiplied by 5% to every 50m² or fraction which exceeds the above mentioned threshold.

From July 2010, 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 or municipalities if not used for commercial purpose. Are also exempted from tax 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.

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 own by disabled persons and adapted to their disability, cars own 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%.

1.5.2 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 of the purpose and result of these activities.

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

For policy year 2009, the standard VAT rate is 19% and is applied on the tax base. The reduced 9% VAT rate is applied on medicines, medical prosthesis, orthopaedic products, books, newspapers, magazines, and accommodation in hotels or similar, access to cultural and historical events and institutions.

Beginning from July 2010, the standard VAT rate was increased to 24%. The reduced 9% VAT rate is maintained and a reduced 5% VAT rate is supplementary introduced for the supply of houses as part of 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.

- *Scope and scale*

Table 1.10 Taxes: % of revenue

	2009	2010
Total State Budget revenue (Lei)	56,434,800,000	66,546,500,000
Direct taxes	27.64	21.73
Tax on profit, income and gains from capital from firms	21.24	16.42
Tax on profit, income and gains from capital from individuals	6.29	5.29
Tax on salaries	0.009	0.009
Tax on property	0.095	0.006
Indirect taxes - Tax on goods and services	56.33	61.94
VAT	30.25	36.46
Excise tax	25.28	24.36
Tax on the use of goods or on activities	7.87	1.09
Other taxes on goods and services	0.192	0.066

Source: Romanian Statistical Yearbook, 2011



2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

2.1 Scope of simulation

Table 9 presents the Romanian benefits system, underlining the manner in which they were treated in EUROMOD, while Table 10 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?
		2009	2010	2011	2012	
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	
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	PS	PS	PS	PS	Asset test not fully implemented
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	PS	PS	PS	PS	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	PS	PS	PS	PS	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 1. Simulation of taxes and social contributions in EUROMOD

	Variable name(s)	Treatment in EUROMOD				Why not fully simulated?
		2009	2010	2011	2012	
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	tschl_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 2009- 2012.



2.2 Order of simulation and interdependencies

- *Order of simulation in 2009 - 2012*

The following table shows the order in which the main elements of the Romanian tax and benefit system in 2009-2011 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. Policies, which are included into the model, but not used in the EUROMOD baseline, are marked as “switched off in the baseline”. Policies, which have been applicable in a specific year only are marked as “switched off in year (-s) X”. In general, the spine structure is identical for all four analysed years.

The defined order shows the start of Romanian policy simulations 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 there 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 parameters in the spine.



Table 12. EUROMOD Spine: order of simulation, [2009 - 2012]

Policy	Description	Main output
yem_ro	Minimum Wage (Salariul minim brut) <i>(switched off in the baseline for all years)</i>	yem
tscee_ro	Employee Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)	tscee_s
tscer_ro	Employer Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)	tscer_s
bun_ro	Unemployment benefit (Ajutorul de somaj)	bun_s
tscbr_ro	Benefit Recipients Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)	tscctpi_s
tsese_ro	Self-Employed Social Insurance Contributions (Contributii in cadrul bugetului asigurarilor sociale de stat, contributii in cadrul asigurarilor pentru somaj)	tsese_s
tschl_ro	Health insurance contributions (active population & pensioners) (Contributia de asigurari sociale de sanatate)	tschl_s
tin_ro	Personal Income Tax (Impozitul pe venit)	tintb_s
bchba_ro	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
bchm_ro	Universal Child Benefit (Alocatia de stat pentru copii)	bchm_s
bccnw_ro	Child raising allowance (Indemnizatia pentru cresterea copilului)	bccnw_s
bccrw_ro	Child raising incentive (Stimulentul lunar)	bccrw_s
bsaoa_ro	Minimum social pension/ social allowance for pensioners (Pensia minima garantata)	bsaoa_s
bched_ro	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	Guaranteed min income (Venitul minim garantat)	bsa_s
calibrate_bsa_ro	Adjust take up of the minimum guaranteed income to exclude households where the head is younger than 26 <i>(Switched off in the baseline for all years)</i>	bsa_s
tschl_ro	Credited health insurance contributions + contributions of the inactive	tschl_s
bchmt_ro	Means-tested family benefits (Alocatia familiala complementara si Alocatia de sustinere pentru familia monoparentala)	bchmt_s
bhoen_ro	Means-tested heating benefit (Ajutorul pentru incalzirea locuintei)	bhoen_s

Source: EUROMOD 7.0+

2.3 Social benefits

2.3.1 Unemployment benefit (Ajutorul de șomaj) (bun_ro)



- **Definitions**

The unit of analysis is the individual (tu_individual_ro).

- **Eligibility conditions**

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 2009 - 2012.

- **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:

- 75% of statutory gross minimum guaranteed wage, for people with a contribution period of at least one year;
- 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 for the last 12 months of contribution period.

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

- 3% for those with a contribution period of at least 3 years;
- 5% for people with a contribution period of at least 5 years;
- 7% for people with a contribution period of at least 10 years;
- 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.

In 2011 and 2012 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:

- 75% of ISR, for people with a contribution period of at least one year;
- 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.

- **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.

2.3.2. Allowance for new born children and the outfit for the new born children (Alocația pentru copiii nou-născuți și trusoul pentru nou-născuți) (bchba_ro)

- **Definitions**

The unit of analysis consists of head, partner, own dependent children and loose dependent children (tu_bcc_ro). A dependent child is defined as aged under 2.

- **Eligibility conditions**

The allowance is awarded to parents of newborn children (aged 0), if the newborn child is one of the first four born to the couple.

- **Income test**

The benefit is not income tested.

- **Benefit amount**

The amount of the allowance for new-born children was a lump sum equal to 230 per child in 2009 & 2010. The outfit for the new born children was a lump sum of 150 for every child under the age of one, in the tax unit, during 2009 – 2010. Starting the 3rd of July 2010, this benefit is no longer granted.

EUROMOD Notes: In checking the order of birth of the newborn child, only the children present in the household may be counted. The benefit is allocated to the mother, if she is present in the household.

2.3.3. Universal child benefit (Alocația de stat pentru copii) (bchnm_ro)

- **Definitions**

The unit of analysis is the family (tu_family_ro). It is defined as consisting of 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**

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:

	2009	2010	2011	2012
Aged under 2 (or below 3 if disabled)	200	200	200	0.4 ISR
Aged 2 and above, not disabled	42	42	42	0.084 ISR
Aged 2 and above, disabled	84	84	84	0.168 ISR

Starting with the 1st of January 2012 the quantum of the state allowance is established based on a reference social indicator (ISR). The ISR level established for 2012 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.

2.3.4. 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*

2009	2010	2011	2012
<p>600 Lei or optionally 85% of the average incomes for the last 12 months, but no more than 4,000 Lei.</p> <p>The allowance is increased by 600 Lei for each child born of a pregnancy of twins, triplets or more, starting from the second child from such a birth.</p>	<p>From 1 January to 2 July: 600 Lei or optionally 85% of the average incomes for the last 12 months, but no more than 4,000 Lei.</p> <p>From 3 July, the value decreases by 15% (Law no. 118/2010).</p>	<p>Allowance received 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.</p> <p>Allowance received 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.</p>	<p>Allowance received 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 1.2 ISR and no more than 6.8 ISR.</p> <p>Allowance received 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 1.2 ISR and no more than 2.4 ISR.</p> <p>The quantum of the allowance is increasing with 1.2 ISR for children born of a pregnancy of twins, triplets or more.</p>

A new law affecting the Child raising allowance for was enforced starting with the 1st of January 2011. For persons benefiting of this indemnity for a child born before the 31st 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 1st 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 rising cannot be set to a value below the level of 1.2 ISR (a reference social indicator) or above 6.8 ISR. In 2012 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.

In 2009 & 2010, the benefit is simulated to be 85% of the previous gross average monthly income, while in 2011 and 2012 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).



2.3.5. 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.

Starting with the 1st of January 2011, the incentive is granted to persons entitled to receive the Indemnity for child rising until the child reaches the age of 1 (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*

Benefit is 100 lei per month for all working months. Starting with the 1st of January 2011 the amount of the incentive was set to 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 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).

2.3.6. 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 – 300 Lei in 2009 and 350 Lei in 2010 - 2012.

- **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.

2.3.7. 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 in 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 the social assistance. In case the family or single person owns goods that are not enlisted as basic necessity goods, they are not considered entitled to receiving social assistance.

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 Lei per month. The threshold has not changed between 2007 and 2012. All income received by each family member during the three months prior to application is taken into account, except for: state allowance for children, complementary family allowance, support allowance for mono-parental family, 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 2007 and 2012.

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).



2.3.8. 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:

	2009	2010	2011	2012
single person	108 Lei	125 Lei	125 Lei	0.25 ISR
families with 2 persons	196 Lei	225 Lei	225 Lei	0.45 ISR
families with 3 persons	272 Lei	313 Lei	313 Lei	0.63 ISR
families with 4 persons	339 Lei	390 Lei	390 Lei	0.78 ISR
families with 5 persons	402 Lei	462 Lei	462 Lei	0.93 ISR
for each person over the number of five persons belonging to the family	27 Lei	31 Lei	31 Lei	0.062 ISR

There is also an asset test and a work test.

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 the social assistance. In case the family or single person owns goods that are not enlisted as basic necessity goods, they are not considered entitled to receiving social assistance.

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).

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 benefit (bchm_s), plus unemployment benefit (bun), plus alimony/ maintenance payments (yptmp), plus temporary sickness benefit (bhl), plus maternity benefit (bma), plus means-tested educational allowances (bched_s) (in 2007 only), and plus guaranteed minimum pension/social allowance for pensioners (bsaoa_s) (in 2009 - 2012).

- **Benefit amount**

The amount is the difference between minimum guaranteed income level and the family's income. If the difference is less than 10 Lei (in 2009 - 2012) per month, the 10Lei (in 2009 - 2012). 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 of their parents).

2.3.9. Means-tested family benefits (Alocația familială complementară și Alocația de susținere pentru familia monoparentală/Alocația pentru susținerea familiei – since 2011) (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 250 lei per month.

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 receiving this benefit. In case the family or single person owns only goods considered of basic necessity they are entitled to receive the social assistance. In case the family or single person owns goods that are not listed as basic necessity goods, they are not considered entitled to receiving social assistance.

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 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:

Complementary allowance amounts and threshold

	2009	2010
Per capita income threshold	470	470
1 child	50	50
2 children	60	60
3 children	65	65
4+ children	70	70

Single parent allowance amounts and threshold

	2009	2010
Per capita income threshold	470	470
one child	70 Lei	70 Lei
2 children	80 Lei	80 Lei
3 children	85 Lei	85 Lei
4 or more children	90 Lei	90 Lei

The Law no. 277 / 2010 regarding the **Family Support Allowance (Alocația pentru susținerea familiei)** repeals the legal frame of the Complementary allowance and Support allowance for the single parent family. The new law sets different amounts corresponding to two income thresholds.

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

	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 the thresholds and amounts were:

	2012	2012
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	0.05 ISR
2 children	0.12 ISR	0.1 ISR
3 children	0.18 ISR	0.15 ISR
4+ children	0.24 ISR	0.2 ISR

* ISR set to 500 lei, 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:

	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 the thresholds and amounts were:

	2012	2012
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	0.09 ISR
2 children	0.2 ISR	0.18 ISR
3 children	0.3 ISR	0.27 ISR
4+ children	0.4 ISR	0.36 ISR

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

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.

2.3.10. 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 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 owns 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 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.

- **Income test**

Means tested benefit, both income and 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 benefit (bchnm_s), plus unemployment benefit (bun), plus alimony/ maintenance payments (yptmp), plus temporary sickness benefit (bhl), plus maternity benefit (bma), plus means-tested educational allowances (in 2007 only), 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

1 November 2008 -31 December 2010

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

Average monthly net income per family member, and per a single person (LEI)	Percentage compensation of the actual amount of heat energy bill (%)
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GEO no. 106/2009:

During 1 November 2010 – 31 March 2011:

	Family	Single person
Up to155	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	0	10
786.1 - 1082	0	0



Average monthly net income per family member, and per a single person (LEI)	Percentage compensation of the actual amount of heat energy bill (%) State Budget	Percentage compensation of the actual amount of heat energy bill (%) Local Budget
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GEO no. 106/2009:

During 1 November 2011 – 31 March 2012

	Family	Single person	Compensation financed through the Local Budgets for families and single persons
Up to 155	90%	100	7
155.1 - 210	80	90	14
210.1 - 260	70	80	20
260.1 - 310	60	70	27
310.1 - 355	50	60	33
355.1 - 425	40	50	40
425.1 - 480	30	40	46
480.1 - 540	20	30	53
540.1 - 615	10	20	59
615.1 - 786	5	15	61
786.1 - 1082	0	10	0

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

II. Natural gas

1 November 2008- 31 December 2010

Average monthly net income per family member, and per a single person (LEI)	Monthly amount (Lei)
Up to 155 Lei	262
155.1 - 210	162
210.1 - 260	137
260.1 - 310	112
310.1 - 355	87
355.1 - 425	62
425.1 - 480	44
480.1 - 540	31
540.1 - 615	19



Average monthly net income per family member, and single person (LEI)	Monthly amount (Additional monthly amount) (LEI)
During November 2010 – March 2011 and November 2011 – March 2012:	
Up to 155 Lei	262
155.1 – 210	162
210.1 – 260	137
260.1 – 310	112
310.1 – 355	87
355.1 – 425	62
425.1 – 480	44
480.1 – 540	31
540.1 – 615	19

In 2008, there was an additional aid for home heating to support the families and single persons with low incomes that use gas for heating (see below).

III. Wood, coal and oil fuel

1 November 2008- 31 December 2010	
Average monthly net income per family member, and per a single person (LEI)	Monthly amount (Lei)
Up to 155 Lei	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

Average monthly net income per family member, and single person (LEI)	Monthly amount (LEI)
During November 2010 – March 2011 and November 2011 – March 2012:	
Up to 155 Lei	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, since November 1st till March 31st 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.

2.4 Social contributions

2.4.1 Employee Social 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*.

As eligibility condition the contribution base must be positive.

For policy years 2009 and 2010 there is no upper threshold for the social insurance contribution base. In 2011 and 2012 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 rates were 9.5% 2009 and 10.5% in 2010-2012.

Employee Unemployment contribution

Employee Unemployment contribution rate is 0.5% in 2008 - 2012.

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.

2.4.2 Employer Social 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*.



For policy years 2009 and 2010 there is no upper threshold for the social insurance contribution base. In 2011 and 2012 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 of the contribution base.

The Salary Guarantee Contribution is due only by private employers.

The contribution rates are detailed below:

Type of contribution	% of contribution base			
	2009	2010	2011	2012
social insurance	employer: 18.5%, 23,5%, 28,5% and 20.8%, 30.8%****	employer: 20.8%, 25.8%, 30.8%	employer: 20.8%, 25.8%, 30.8%	employer: 20.8%, 25.8%, 30.8%
unemployment insurance	employer: 0.5%	employer: 0.5%	employer: 0.5%	employer: 0.5%

EUROMOD notes: Employee 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.

2.4.3 Self-employed Social Insurance Contributions (Contribuții în cadrul bugetului asigurărilor sociale de stat, contribuții în cadrul asigurărilor pentru șomaj) (tscse_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 also employed or pensioners (except for income from author's rights in 2010). 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 author's 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 (thus 8088 Lei in 2011 and 8468 Lei in 2012) the social insurance contribution is not due.

The contribution rate was 31,3% in 2009-2012 (for author's 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 author's rights for self-employed who earn this type of income (no minimum or maximum thresholds apply for income from author 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 2009 – 2012 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 2009 – 2012 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.

2.4.4 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 was 5.5% in 2009 - 2012 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 2009 – 2012 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 the situation 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 gross employment income.

The health insurance rate paid by employers was 5.2% in 2009 - 2012.

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.

In 2009 and 2010, health insurance contributions are paid on total gross pension income.



In 2011 only pensioners that have pensions above 740 Lei pay this contribution as 5.5% of the quantum of gross pension and in 2012 the percentage 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.

2.4.5 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 unemployed and recipients of sickness and maternity benefits.

The unit of analysis is the individual (tu_individual_ro).

For the recipients of unemployment benefits (thus $bun > 0$), the contribution rate is 9.5% of the unemployment benefit amount for 2009 and 10.5% in 2010-2012.

For the recipients of sickness benefits or maternity benefits - ($bhl + bma > 0$), the contribution rate is 9.5% of the minimum wage for 2009 and 10.5% of minimum wage in 2010-2012.

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

2.4.6 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 trafficking in human beings; (g) expelled; (h) family members of guaranteed minimum income recipients.

The contribution rates and contribution base for the above categories are as follows (5.5% in 2009 - 2012 for (a), (c), (d), (f), (g); 5.5% from the unemployment benefit for (e) 2009 - 2012); 5.5% from the indemnity for work incapacity (b) 2009 - 2012); 5.5% from the social benefit received for (h) (2009 - 2012). 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; no income earner 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 Personal income tax (tin_ro)

2.5.1 Tax unit

For the personal income tax, the tax unit is the individual who has received income - 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 comprises all household members.

2.5.2 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 1st 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 3rd degree at most and between spouses; inheritance, if the succession is finalized in maximum 2 years from the moment of decease.
- 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 medalled 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

2.5.3 Tax allowances

There is a **Tax allowance for pensioners** of maximum 1000 Lei per month (for policy years 2009-2012). 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 2nd 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 of private voluntary pension contributions- contributions made to private pension plans are deductible from the tax base up to the limit of 1695 Lei per year in 2009 and 1673.5 Lei per year in 2010-2012 (the equivalent of 400 Euros in Lei). 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.

2.5.4 Tax schedule

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

2.5.5 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.

3. DATA

3.1 General description

The Romanian database used in EUROMOD is the Romanian Survey on Income and Living Conditions, named Quality of Life Survey, which actually represents the implementation of the European Union Statistics on Income and Living Conditions (EU-SILC) survey in Romania. The 2010 dataset is based on the UDB version 2010-1 from 1-03-2012. In 2010, 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 5th month of the year following the income reference year (the calendar year: January – December 2009).

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 97.06%, while the overall individual response rate is 96.57%.

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 after the 2002 Census. The PSUs were sampled with a probability proportional to size (number of permanent dwellings) and thus was constructed the Multifunctional Sample of Territorial Areas, called the master sample EMZOT. The EMZOT sample has 427 PSUs selected from urban area and 353 PSUs selected from rural area. In the second stage, dwellings are systematically selected from EMZOT. 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. Under-coverage rate was estimated as the ratio between number of new dwellings, built in the period end of 2002 year (the year of the census)- end of 2009 year and number of dwellings at the end of 2009 year (Source: Romanian Statistical Yearbook, 2010) and it was equal to 4.0%. Over-coverage rate was estimated on the basis of the survey sample, as the ratio between the number of not-eligible dwellings (not-existing addresses, or being non-residential or unoccupied or not the main addresses) and number of sampled dwellings (all addresses selected) and it accounts for 1.89%.

The EUROMOD database is built on the UDB (User Data Base) version provided by Eurostat.



Table 14. EUROMOD database description

EUROMOD database	RO_2010_a1
Original name	UDB_c10_ver_2010-1 from 01-03-12 (RO)
Provider	Eurostat
Year of collection	2010
Period of collection	10-30 May 2010
Income reference period	Year 2009
Sampling	two-stage probability sampling
Unit of assessment	Household[1]
Coverage	all citizens officially living in Romania [2]
Sample size	7718 households, 18347 individuals (16164 aged over 16 years)
Response rate	97.06%[3]

Notes:

[1] 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. All households within each dwelling are included.

[2] persons living in collective households and in institutions and households with members being diplomatic missioners are excluded from the target population.

[3] household response rate is 97.06%, the overall individual response rate is 96.57%.

3.2 Sample quality and weights

3.2.1 Non-response

A number of 7989 dwellings were successfully contacted from the 8007 valid addresses selected, thus the address contact rate being of 99.78%. The number of eligible households at contact address was 7952, out of which 7718 households have completed the interviews which were accepted for the database, thus the household response rate was 97.06% and the non-response rate was 2.94%. 99.71% of the eligible individuals from the households whose interviews were completed and accepted for the database were interviewed successfully; the individual non-response rate was 0.293%, while the overall individual non-response rate was 3.43%.

In order to deal with the non-respondent households, the sample is re-weighted, by adjusting the weights of the respondent households with the inverse of the response rate at the level of household groups by the variable considered as explicative for the non-responses. The non-response are not globally adjusted, at the entire sample level, but separately at waves level, on groups of households, groups generated by the explicative variables for the non-responses. This correspond to the so-called 'response-homogenous groups' method, which assumes that in a certain group all the units have the same probability. For the 1st wave there were used as explicative variables for non-response the region (NUTS II level) and the area of residence (urban / rural) and for the 2nd, 3rd and 4th wave - the variable region. In order to minimize the effects induced by the presence of non-response, another adjustment is done by calibration of the weights.

The non-response rate of households was mostly due to the refusal to cooperate (50% of the interviews not completed) or the households were unable to respond (31%), while in 18% of cases the entire household was temporary away during the survey collection period.

No substitution of non-respondent units has been done.

3.2.2 Weights

The cross-sectional weights that were calculated in the dataset are:

- 1) Household cross-sectional weight (DB090)
- 2) Personal cross-sectional weight for all household members (RB050)
- 3) Personal cross-sectional weight for all household members aged 16 and over (PB040)



Weighting factors are calculated by taking into account the units probability of selection, non-response adjustment and the calibration to external data relating to the distribution of persons in the target population. The weights are calculated in three steps: the first step assigns the inverse of the selection probabilities to each sampled dwelling unit, the second step adjusts for non-response, while the third step consists of calibrating the secondary weights, for each wave, by region, to the best latest available population totals. For the 1st wave, the design factor of the household is the inverse of its inclusion probability and the designed weight for individuals are the same as for the household, because in each selected dwelling, all persons are selected for the survey. In case of the households at the 2nd, 3rd and 4th wave, an indirect sampling of households is done through the panel (of persons aged 14+ at the time of the panel selection). In this case, the inclusion probabilities cannot be calculated and thus, the Weight Share Method is applied. For the 2nd wave which is a subsample selected in 2009, the design factors of households are calculated through the individual base weights which are obtained from cross-sectional weights calculated in previous year 2009 and inflated with attrition. Co-residents are given zero base weight. For the 3rd wave which is a subsample selected in 2008, there could be two cases: if the sample person was a respondent in 2009, the base weight is calculated taking into account the base weight of previous year and then corrected both: attrition between 2009 and 2010 and compensation of the re-entrees, if the sample person was a non-respondent in 2009, in which case the base weight is obtained by taking into account the cross-sectional weights RB050, calculated in 2008, corrected for the attrition between 2008-2010 and for co-residents the weight is equal to zero, For the 4th wave the approach is similar.

For the calibration of weights, it was applied an integrative calibration that means that both households and personal variables were used in the procedure. The calibration is performed at the household level using the household variables and individual variables in their aggregate form as calibration variables. This technique ensures that all members in the same household receive the same weight. Adjustments were made using the SAS macro CALMAR. Calibration variables were: “distribution of the population by age group (0-15; 16-24; 25-34; 35-49; 50-64; 65-74; 75 and over), area of residence (urban\rural) and gender” using Romanian Population Estimates at the end of the income reference period and “households totals by region”.

Table 15. Descriptive Statistics of the Grossing-up weight (rb050)

Number	18347
Mean	1169.793
Median	840.5977
Maximum	9180.918
Minimum	124.645
Max/Min	73.656
Decile 1	470.421
Decile 9	2170.187
Dec 9 / Dec1	4.613

3.2.3 Item non-response and under-reporting

The National Institute of Statistics from Romania reports that there are no item non-responses in the EU-SILC 2010 due to the checking programs used at the county level which show the missing items and consequently the supervisors of data collection do all the necessary checking and identify whether it is a loading error or the information has not been collected, in which case the household is interviewed once again.

As concerning the income reporting, it seems that, for respondents, the most difficult information to declare was the value of incomes received in the previous calendar year, the social insurance contributions, the taxes on wealth, the housing costs, and also some households found difficult to estimate the rent they would receive if they had rent the dwelling. The National Institute of Statistics carries out on monthly basis the Household Budget Survey (HBS), which is a nationally representative survey which covers 3200 households every month. But, a full comparison of incomes between HBS and EU-SILC data is not possible due to some methodological differences, especially regarding the differences at the level of income elements collected and included in the EU-SILC, the HBS collecting the income



elements only at household level and having the income reference period the previous month. There are differences between aggregates calculated on the basis of the two surveys, possibly due to the greater value of the income taxes and social insurance contributions for wages, own account activities and pensions in EU-SILC, where these elements are automatically calculated (if the person declared there were paid). In HBS the person should declare himself the value of these components in the diary.

3.3 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 information and related income as well.

3.4 Imputations and assumptions

3.4.1 Time period

The reference period for the socio-demographic variables is the time of data collection, February 2010, 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 2009, 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.

3.4.2 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 the sums are collected in the form of 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;
- the interest for dividends and money withdrawn from bank.

3.4.3 Other imputed 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 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.
- Marriage grant –isolated from family and children allowances (hy050) for couples with no children if the amount of the benefit equals the marriage grant.
- Universal child benefit –disaggregated from family and children allowances (hy050) based on the benefit rules (number of children and their ages).
- Allowance and the outfit for new born children —disaggregated from family and children allowances (hy050) based on benefit rules: the existence of a child born in the income reference year.
- 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 marriage grant, the universal child benefit, the allowance and the outfit for new born children, the child raising benefit and the maternity benefit.
- 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 2009.



3.4.4 Other data adjustments

There were 47 individuals in the original SILC dataset who are non-respondent. Income components for these individuals have been imputed based on the household income inflation factor (hy025) and age. The household income that results from applying the inflation factor has been allocated to the non-respondent individuals. It is assumed that the source of this income is the most prevalent observed income source corresponding to the non-responded individual's age group.

Children born after the income reference period are dropped from the sample. No weights adjustment is carried out on this account.

3.5 Updating

The updating factors are used in order to update the monetary variables from 2009 to 2010, 2011 and 2012. The socio-demographic characteristics, labour market variables and not simulated income variables are not updated, remaining at their initial values.

Table 16. Updating factors

Index	Income Source	2009-2010	2009-2011	2009-2012	Source
<i>default</i>	Default	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>yem</i>	employment income	0.9639	1.0688	1.0688	Change in average gross wages. National Institute of Statistics; Labour Cost Survey
<i>yse</i>	self-employment income	0.9768	1.0133	1.0133	Change in average gross self-employment income. National Institute of Statistics; Household Budget Survey
<i>ypr</i>	property income	0.8194	0.6732	0.6732	Change in average household property income. National Institute of Statistics; Household Budget Survey
<i>yyi</i>	investment income	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>poa</i>	old-age pensions	1.0581	1.0721	1.0721	Change in the annual average of monthly pensions; National Institute of Statistics; National House of Pensions
<i>pdi00</i>	disability pensions	0.9578	1.0913	1.0913	Change in the annual average of monthly pensions; National Institute of Statistics; National House of Pensions
<i>psu</i>	survivor pensions	1.0594	1.1151	1.1151	Change in the annual average of monthly pensions; National Institute of Statistics; National House of Pensions
<i>bma</i>	maternity benefit	1.0477	1.0801	1.1539	Based on the average increase in previous year's gross wages. National Institute of Statistics; Labour Cost Survey
<i>bhl</i>	sickness benefit	1.0477	1.0801	1.1539	Based on the average increase in previous



<i>bun</i>	unemployment benefit	1.0000	0.8334	0.8334	year's gross wages. National Institute of Statistics; Labour Cost Survey
<i>yempv</i>	previous wage	1.0477	1.0801	1.1539	Change in average benefit-National Institute of Statistics, Labour cost survey
<i>bhoen</i>	heating benefit	1.0000	1.0000	1.0000	Based on the average increase in previous year's gross wages. National Institute of Statistics; Labour Cost Survey
<i>bccnw</i>	raising allowance	1.1755	1.0238	1.0238	Benefit thresholds and amounts unchanged since 2009
<i>bchnm</i>	universal child allowance	1.0000	1.0000	1.0000	Change in the annual payments divided by number of recipients. Ministry of Labour and Social Protection
<i>bchba</i>	allowance for new-born children	1.0000	0.0000	0.0000	Based on benefit rules
<i>bchmt</i>	means-tested family allowances	0.9937	0.8706	0.8706	Based on benefit rules
<i>bdi</i>	disability benefit	0.8409	0.8387	0.8387	Change in the annual payments divided by number of recipients. Ministry of Labour and Social Protection
<i>yot</i>	Other income (received by children under 16)	1.0720	1.1110	1.1514	Change in the annual payments divided by number of recipients. Ministry of Labour and Social Protection
<i>yivwg</i>	Imputed wages in the previous year	0.9639	1.0688	1.0688	Consumer Price Index ; National Institute of Statistics
<i>ypp</i>	Private pensions	1.0000	1.0000	1.0000	Change in average gross wages. National Institute of Statistics; Labour Cost Survey
<i>xpp</i>	Contributions to private pension plans	1.0720	1.1110	1.1514	The variable is 0 in the dataset
<i>xmp</i>	Private maintenance payments	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>ypt</i>	Inter-household transfers received	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>bfacp</i>	Marriage grant	1.0000	1.0000	1.0000	The variable is 0 in the dataset
<i>bed</i>	Education allowances	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>xhcot</i>	Other housing costs	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>xhcrt</i>	Rent paid	0.8194	0.6732	0.6732	Consumer Price Index ; National Institute of Statistics
<i>xhcmo</i>	Mortgage interest paid	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>mi</i>	Imputed rent	0.8194	0.6732	0.6732	Change in average household property income. National Institute of Statistics; Household Budget Survey
<i>kivho</i>					
<i>tad</i>	Tax adjustments	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>tis</i>	Taxes and social	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of



	insurance contributions				Statistics
<i>tpr</i>	Property taxes	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>kfb</i>	In-kind benefits	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>yunsv</i>	Severence payments	0.9639	1.0688	1.0688	Change in average gross wages. National Institute of Statistics; Labour Cost Survey
<i>bsa</i>	Social assistance (MGI)	1.8605	2.1311	2.4536	Change in the annual payments divided by number of recipients. Ministry of Labour and Social Protection
<i>afc</i>	Financial capital	1.0720	1.1110	1.1514	Consumer Price Index ; National Institute of Statistics
<i>yds</i>	Disposable income	1.0007	1.0503	1.0503	Change in average disposable income. National Institute of statistics; Household Budget Survey

4. VALIDATION

4.1 Aggregate Validation

It should be noted that 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.

The components of disposable income, as they are defined in EU-SILC vs. EUROMOD can be found in the table below. There are no major differences between the two definitions for disposable income, except for the *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 [2009, 2010, 2011, 2012]	EU-SILC [2009]
	ils_dispy	HY020
Employee cash or near cash income	yem	PY010G
Employer's social insurance contribution	ils_sicer	PY030G
Contributions to individual private pension plans	xpp	PY035G
Cash benefits or losses from self-employment	yse	PY050G
Pension from individual private plans	ypp	PY080G
<i>Unemployment benefits</i>	bun_s	PY090G
<i>Old-age benefits</i>	poa	PY100G
<i>Survivor' benefits</i>	psu	PY110G
Sickness benefits	bhl	PY120G
Disability benefits	pdi00, bdi	PY130G
Education-related allowances	bched_s	PY140G
Income from rental of a property or land	yprrt	HY040G
<i>Family/children related allowances</i>	bma, bccnw_s, bchnm_s, bccrw_s, bchba_s, bchmt_s	HY050G
Social exclusion not elsewhere classified	bhoen_s, bsa_s, bsaoa_s	HY060G
Housing allowances	-	HY070G
Regular inter-household cash transfer received	ypt	HY080G
Interests, dividends, etc.	yiyl	HY090G
Income received by people aged under 16	yot	HY110G
Regular taxes on wealth	tpr	HY120G
<i>Regular inter-household cash transfer paid</i>	xmp	HY130G
<i>Tax on income and social contributions</i>	ils_taxsim, ils_sicce, ils_sicse, tschl_s	HY140G
<i>Repayments/receipts for tax adjustment</i>	tad	HY145N

The total disposable income in EU-SILC is computed as follows:

$$\begin{aligned}
 \text{HY020} = & \sum \text{PY010G} + \sum \text{PY021G} + \sum \text{PY050G} + \sum \text{PY090G} + \sum \text{PY100G} + \sum \text{PY110G} + \sum \text{PY120G} + \\
 & \sum \text{PY130G} + \sum \text{PY140G} + \text{HY040G} + \text{HY050G} + \text{HY060G} + \text{HY070G} + \text{HY080G} + \text{HY090G} + \\
 & \text{HY110G} - \text{HY120G} - \text{HY130G} - \text{HY140G}
 \end{aligned}$$

The sum for all household members of gross personal income components [gross employee cash or near cash income (PY010G); company car (PY021G); gross cash benefits or losses from self-employment (including royalties) (PY050G); unemployment benefits (PY090G); old-age benefits (PY100G); survivor' benefits (PY110G), sickness benefits (PY120G); disability benefits (PY130G) and education-related allowances (PY140G); income from rental of a property or land (HY040G); family/children related allowances (HY050G); social exclusion not elsewhere classified (HY060G); housing allowances (HY070G); regular inter-household cash transfers received (HY080G); interests, dividends, profit from capital investments in unincorporated business (HY090G); income received by people aged under 16 (HY110G)] **minus** [regular taxes on wealth (HY120G); regular inter-household cash transfer paid (HY130G); tax on income and social insurance contributions (HY140G)]. The variable HY140G includes tax adjustments-repayment/receipt on income, income tax at source and social insurance contributions (if applicable).

The standard disposable income in EUROMOD (ils_dispy) is computed as follows = **Original income (ils_origy) + benefits (ils_ben) – taxes (ils_tax) - employee social insurance contributions (ils_sicce) - self-employed social insurance contributions (ils_sicse) – health insurance contributions (tschl_s)**



Original income (ils_origy) = income : employment (yem) + income : self employment (yse) + income : investment (yiy) + income : property : rent (yprrt) + income : private pension (ypp) + income : other (yot) + income : private transfers (ypt) - expenditure : maintenance payment (xmp) + income : unemployment : severance pay (yunsv)

Benefits (ils_ben) = Pension income (from the public pillar) (ils_pen) + Non-means tested benefits (Excluding pensions) (ils_bennt) + Means-tested benefits (ils_benmt)

Non-means tested benefits (Excluding pensions) (ils_bennt) = Maternity benefit (bma) + Child raising allowance (bccnw_s) + Sickness benefit (bhl) + Contributory unemployment benefit (bun_s) + Universal child allowance (bchm_s) + Child raising incentive (bccrw_s) + (Allowance for newborn children and the outfit for newborn children (bchba_s) + Disability benefit (bdi)

Means-tested benefits (ils_benmt) = Social assistance (guaranteed minimum income) (bsa_s) + Means tested educational allowance (Money for High School) (bched_s) + Means tested family benefits (bchmt_s) + Means tested heating benefit (bhoen_s) + Social allowance for pensioners (bsaoa_s)

Taxes (ils_tax) = simulated taxes (ils_taxsim) + property tax (tax on wealth included) (tpr)



4.1.1 Validation of incomes inputted into the simulation

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, especially for 2009 and 2010, when the number of registered unemployment has grown significantly as a result of the economic crises. It should be also noted that the unemployed are under-represented in the original dataset. We compared the number of unemployed with two different external data sources, survey data (LFS) and administrative data (from the National Agency for Employment) and it seems that the comparison with the administrative data (registered unemployment) performs better. 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.

Table 4.2 Number of employed & unemployed

	Input dataset (I)		External Source (II)			Ratio (I/II)			
	2009	2009	2010	2011	2012	2009	2010	2011	2012
Number of employed	8803,7568	9243,457	9239,390	9137,736	9018,836	0,95	0,95	0,96	0,98
Number of registered unemployed	120,1975	709,383	626,960	461,013	441,220	0,17	0,19	0,26	0,27
Number of ILO unemployed		680,683	725,150	730,217	740,062				

Notes: Number of employed and unemployed from external statistics are computed as averages of quarterly/ monthly data over the year. For 2012, figures refer to the first quarter.

Sources : EUROMOD 7.0+; External statistics:

1. For registered unemployed, 2009-2011, Romanian Statistical Yearbook, 2010, National Institute of Statistics, p. 112.
2. For registered unemployed, 2010, data of National Agency for Employment, <http://www.anofm.ro/situatia-operativa-a-somajului-inregistrat-la-data-de-31-12-2010>
3. For ILO unemployed, Labour Force in Romania. Employment and unemployment, National Institute of Statistics, Annual Publications
4. For employed, Labour Force in Romania. Employment and unemployment, National Institute of Statistics, Annual Publications
5. For ILO unemployed, data of National Institute of Statistics, http://www.insse.ro/cms/files/statistici/comunicate/com_anuale/ocup-somaj/somaj_2009.pdf
6. Data for 2011 and the first trimester of 2012 are from National Institute of Statistics, Tempo Online database, Labour Force Survey
7. Data regarding the number of registered unemployed of 2012 refer to the existing situation from 31st of August.
- 8.

Definitions:

Registered unemployed are persons who fulfill the cumulative conditions stipulated by the Law no.76/2002 regarding the system of unemployment insurance and employment incentives and who register to the employment agency in the territorial zone they have domicile or, by case, residence, or another provider of employment services, functioning according to the law, in order to get a job. According to the legislation in force, unemployed quality is held by person who fulfills the following cumulative conditions:

- a) he is looking for a job from 16 years old at least to pension age;
- b) his health, his physical and psychical capacities make him able to work;
- c) he has no job, he gets no income or, from legal activities, he gets an income lower than the value of reference social indicator according to the Law no.76/2002;
- d) he is available to start work in the next period if he finds a job;



There are **assimilated unemployed** those who are:– graduates of educational institutions and graduates of special schools for disabled persons aged 16 years at least, who, during a 60 days period since graduation, did not succeed in being employed according to their vocational training;
– persons who, before carrying out their military service, were not employed and who, during a 30 days period since the end of military service, could not be employed.

ILO unemployed, according to International Labour Office (ILO) criteria, are persons aged 15-74 years who, during the reference period, simultaneously meet the following conditions:
– have no job and are not carrying out any activity in order to get income;
– are looking for a job, undertaking certain actions during the last four weeks (registering at employment agencies, or private agencies for placement, attempts for starting an activity on own account, publishing notices, asking for a job among friends, relatives, mates, trade unions a.s.o.);
– are available to start work within the next two weeks, if they immediately find a job.



Table 4.3 Market Income-Number of recipients

	Input database (I)		External Source (III)			Ratio (I/III)			
	2009	2009	2010	2011	2012	2009	2010	2011	2012*
Original income									
Employment income	6801,19	6213,037	6061,467	6153,268	6185,731	1,09	1,12	1,11	1,10
Self-employment income	2500,33	1917,714	1996,822	1823,807	1760,299	1,30	1,25	1,37	1,42

Notes: external statistics computed as quarterly averages over the year; *figures for 2012 refer to the first quarter.

Sources: EUROMOD 7.0 +; External statistics: for employment and self-employment number of recipients, National Institute of Statistics, Labour Force Survey, Tempo online database.

The simulation results on the number of employed is highly consistent with the information offered by the external statistics, while the number of self-employed is overestimated in EUROMOD as compared to LFS data, probably because though in LFS data the employment status refers to the main employment status and if a person is employee as main status and self-employed as secondary status, while LFS captures only the former, EUROMOD captures both.

Table 4.4 Market Income-Aggregate amounts

	Input (I)	External source (III)	Ratio (I/III)	Uprated input (I)			External source (III)			Ratio(I/III)			
	2009	2009	2009	2010	2011	2012	2010	2011	2012	2009	2010	2011	2012
Original income													
Av. monthly earnings	1320,62	1361,00	0,97	1273,01	1411,48	1411,48	1391,00	1444,00	N/A	0,97	0,92	0,98	N/A
Employment income -total	107781,28	105702,18	1,02	103895,48	115196,73	115196,73	99878,83	103326,04	N/A	1,02	1,04	1,11	N/A
Self-employment income	13927,52	9233,13	1,51	13604,67	14112,30	14112,30	10029,19	N/A	N/A	1,51	1,36	N/A	N/A
Investment income	124,96	N/A	N/A	133,95	138,82	143,87	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property Income	403,00	397,70	1,01	330,22	271,30	271,30	325,80	N/A	N/A	1,01	1,01	N/A	N/A
Severance payments	112,00	N/A	N/A	107,96	119,70	119,70	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: the monthly average of self-employment income per household extracted from the Household Budget Survey is multiplied by the average number of households. N/A - not available

Sources: EUROMOD 7.0+; External statistics: for employment income, National Institute of Statistics, Labour Cost Survey; for self-employment and property income, National Institute of Statistics, Household Budget Survey, Tempo online database.



As it is obvious from the Table 4.4, the average employment income is below external benchmarks, while the total employment income is overestimated in EUROMOD as a result of the overestimation of the number of employed persons. Possible explanations for the average employment income being below external benchmarks are connected to the fact that the declared income might be underestimated by respondents compared to the real one. It is also possible that the EU-SILC survey does not manage to reach appropriately the high income groups, while the external statistics for employment income is an enterprise survey (Labour Cost Survey) which covers all ranges of employment income.

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, compared to the EUROMOD database, consisting of a sample of 7718 households. The difference in the two sample sizes could partly explain the gap between the input and external statistics.

The estimations for the property income are consistent with the external data.

Table 4.5 Non-simulated taxes and benefits-Number of recipients/payers

	Input database (I)	External Source (III)				Ratio (I/III)			
		2009	2010	2011	2012	2009	2010	2011	2012*
Pensions									
Old-age pension	4078.38	4172	4189	4170	N/A	0.98	0.97	0.98	N/A
Disability (invalidity) pension	736.36	909	887	834	N/A	0.81	0.83	0.88	N/A
Survivor pension	424.71	608	599	585	N/A	0.70	0.71	0.73	N/A
Benefits									
Disability benefit	121.9	1161.729	1210.653	1204.577	1200.886	0.10	0.10	0.10	0.10

Notes: N/A - not available; data for 2012 refers to the first quarter;

Sources: EUROMOD 7.0+; External statistics: for pensions, National Institute of Statistics, National Pensions House; for disability benefits, the Ministry of Labour, Family and Social Protection.

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.

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.

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.



Table 4.6 Non-simulated taxes and benefits-Aggregate amounts

	Input (I)	External source (III)	Ratio (I/III)	Uprated input (I)			External source (III)			Ratio(I/III)		
	2009	2009	2009	2010	2011	2012	2010	2011	2012	2010	2011	2012
Pensions												
Old-age & early old-age pension	35446,9	38071,7	0,931	37505,4	38002,1	38002,1	36949,6	41869,6	N/A	1,015	0,908	N/A
Disability (invalidity) pension	4405,3	5912,1	0,745	4219,3	4807,3	4807,3	5664,1	5684,5	N/A	0,745	0,846	N/A
Survivor pension	2109,5	2779,8	0,759	2234,8	2352,4	2352,4	2600,4	2927,3	N/A	0,859	0,804	N/A
Benefits												
Disability benefits	351,0	1641,0	0,214	295,2	294,4	294,4	1734,3	1721,1	N/A	0,170	0,171	N/A

Notes: N/A - not available

Sources: EUROMOD7.0+; External statistics: for pensions, National Institute of Statistics, National Pensions House; for disability benefits, the Ministry of Labour, Family and Social Protection



4.1.2 Validation of outputted (simulated) incomes

In the case of the *allowance for newborn children* and of the *outfit for newborn children*, the discrepancies between the input database and the external source are quite important. One possible explanation is that there are not enough children aged 0 in the data (compared to EUROSTAT figures- the number in the EM dataset is significantly smaller).

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.

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 (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.

The *unemployment benefit* recipients are severely under-simulated. At least part of the under-simulation is explained by the too low number of unemployed in the dataset, and for the years 2009 and 2010 additionally by the sharp increase in the number of unemployed who receive unemployment benefit.

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.).

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.

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.

The *support allowance* for families with children is strongly overestimated especially in 2011 and 2012. The drop in 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.

Other taxes & benefits are in-line with the external information provided.



Table 4.7 Simulated taxes and benefits-Number of recipients

	Input database (I)				Original data (II)		Ratio (I/II)	External source (III)			Ratio (I/III)			
	2009	2010	2011	2012	2009	2009	2009	2010	2011	2012	2009	2010	2011	2012*
Benefits														
Universal child benefit (state allowance for children)	4189.7 7	4189.7 7	4189.7 7	4189.7 7	2552.7	1.64	3888.01	3892.41	3869.18	3877.34	1.08	1.08	1.08	1.08
Allowance for new born children	90.54	90.54	-	-	N/A	N/A	196.567	128.802	-	-	0.46	0.70	-	-
Outfit for new born children	90.54	90.54	-	-	N/A	N/A	202.166	149.455	-	-	0.45	0.61	-	-
Child raising allowance	95.75	95.75	95.75	95.75	N/A	N/A	181.405	196.495	196.68	171.781	0.53	0.49	0.49	0.56
Child raising incentive	69.25	69.25	69.25	69.25	N/A	N/A	14.575	9.769	10.288	13.403	4.75	7.09	6.73	5.17
Complementary family allowance	1437.1 3	1462.4 9	1071.9	1068.4 1	N/A	N/A	548.579	604.609	N/A	N/A	2.62	2.42	-	-
Support allowance for the lone parent	294.64	298.69	243.53	243.53	N/A	N/A	193.958	200.656	N/A	N/A	1.52	1.49	-	-
Support allowance for family			1315.4 3	1311.9 4	N/A	N/A	N/A	N/A	325.12	339.576	-	-	4.05	3.86
Social Assistance (guaranteed min. income)-Before calibration	1186.5 8	1270.4	1033.8 2	1039.8 3	1707.4 2	0.69	221.603	232.366	186.704	196.5	5.35	5.47	5.54	5.29
Social Assistance (guaranteed min. income)After calibration	805.96	871.01	683.25	686.09	1707.4 2	0.47	221.603	232.366	186.704	196.5	3.64	3.75	3.66	3.49
Unemployment benefit	165.91	165.91	165.91	165.91	172.58	0.96	435.50	329.64	182.54	N/A	0.38	0.50	0.91	N/A
Minimum pension	565.15	842	589.05	589.05	N/A	N/A	652.571	646.598	619.292	607.528	0.87	1.30	0.95	0.97
Money for high-school)	162	163.14	134.37	132.07	N/A	N/A	124.935	124.569	120.987	N/A	1.30	1.31	1.11	N/A
Heating aid	3559.8 3	3502.7 4	2647.5	2634.8 5	N/A	N/A	3612.26	3359.51	1532.58	N/A	0.99	1.04	1.73	N/A
Social insurance contributions														
<i>Employee contributions</i>														



Social insurance contributions	6801.1 9	6801.1 9	6801.1 9	6801.1 9	N/A	N/A	6213.01	6061.45	6153.27	6185.73	1.10	1.12	1.11	1.10
Unemployment	6801.1 9	6801.1 9	6801.1 9	6801.1 9	N/A	N/A	6213.037	6061.467	6153.268	6185.731	1.10	1.12	1.11	1.10
<i>Self-employed contributions</i>														
Social insurance contributions	2438.2 5	2438.2 5	482.35	456.02			1917.714	1996.822	1823.807	1760.299	1.27	1.22		
<i>Employer contributions</i>														
Social insurance contributions	6801.1 9	6801.1 9	6801.1 9	6801.1 9	N/A	N/A	6213.037	6061.467	6153.268	6185.731	1.09	1.12	1.11	1.10
Unemployment	6801.1 9	6801.1 9	6801.1 9	6801.1 9	N/A	N/A	6213.037	6061.467	6153.268	6185.731	1.09	1.12	1.11	1.10
Sickness	6801.1 9	6801.1 9	6801.1 9	6801.1 9	N/A	N/A	6213.037	6061.467	6153.268	6185.731	1.09	1.12	1.11	1.10
Accident	6801.1 9	6801.1 9	6801.1 9	6801.1 9	N/A	N/A	6213.037	6061.467	6153.268	6185.731	1.09	1.12	1.11	1.10
Salary guarantee contribution	5938.9 7	5938.9 7	5938.9 7	5938.9 7	N/A	N/A	4458.479	4414.023	4538.429	4596.578	1.33	1.35	1.31	1.29
<i>Health insurance contributions (all)</i>														
Health insurance contributions paid by employee. self-employed. pensioners etc. (contributed health insurance not included)	13472. 2	13395. 5	11376. 2	11376. 2	N/A	N/A	13806.8	13733.3	13576.1	N/A	0.98	0.98	0.84	N/A

Notes:* - figures for 2012 refer to the first quarter; for unemployment benefit and minimum pension recipients the data in the table is computed as monthly averages over the year. N/A - not available; - not applicable;

Sources: EUROMOD 7.0 +; External statistics: for benefits, except for the program regarding "money for high-school" - data of Ministry of Labour, Family and Social Protection, www.mmuncii.ro, Statistical Bulletin on Labour and Social Protection; for the benefit "money for high-school" data of Ministry of Education,; for A - registered unemployed, Romanian Statistical Yearbook, National Institute of Statistics. For more details, see Table 4.2; for guaranteed minimum social pension, National House of Pensions and Other Social Insurance Rights, <http://www.cnpas.org>; for employee and self-employed contributions, National Institute of Statistics, Labour Force Survey.



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 *allowance for new born children* and the *outfit for new born children*, the *child raising allowance*, the *support allowance for lone parent families*, which are below external benchmark, but also for the *child raising incentive* which is approximately 6 times 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 to 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 - It was agreed that given that no clear external statistics related to self-employed have been found, no figures will be entered (rather than using figures which may not be appropriate).

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.



Table 4.8 Simulated taxes and benefits- Aggregate amounts

	Input (I)				Original (II)	Ratio (I/II)	External source (III)				Ratio(I/III)			
	2009	2010	2011	2012			2009	2009	2010	2011	2012	2009	2010	2011
Benefits														
State allowance for children)	2521.82	2521.82	2521.82	2521.82	1714.4	1.15	2894.51	2916.95	2834.78	700.25	0.87	0.86	0.89	3.60
Allowance for new born children	21.27	21.27	-	-	N/A	N/A	44.45	29.63	-	-	0.48	0.72	-	-
Outfit for new born children	13.87	13.87	-	-	N/A	N/A	30.31	22.51	-	-	0.46	0.62	-	-
Child raising allowance	1214.84	1171.04	1112.70	1112.70	N/A	N/A	1737.81	2212.72	2176.42	484.05	0.70	0.53	0.51	2.30
Child raising incentive	78.86	78.86	394.32	394.32	N/A	N/A	18.72	12.26	20.20	12.52	4.21	6.43	19.52	31.48
Complementary family allowance	1005.00	1025.34	635.03	633.51	N/A	N/A	405.03	442.17	-	-	2.48	2.32	-	-
Support allowance for the lone parent family	260.04	263.44	203.60	203.60	N/A	N/A	180.74	189.03	-	-	1.44	1.39	-	-
Support allowance for family	-	-	838.63	837.11	-	-	-	-	223.29	60.19	-	-	3.76	13.91
Social Assistance (guaranteed min income) –before calibration	1926.88	2445.32	1500.18	1513.49	868.761	2.22	414.58	479.10	387.03	102.07	4.65	5.10	3.88	14.83
Social Assistance (guaranteed min income) - after calibration	1413.51	1823.60	1024.63	1035.70	868.761	1.63	414.58	479.10	387.03	102.07	3.41	3.81	2.65	10.15
Unemployment benefit	610.15	613.02	577.25	604.41	570.10	1.07	1734.41	2433.83	1285.75	N/A	0.35	0.25	0.45	N/A
Minimum pension	334.56	645.23	431.08	431.08	N/A	N/A	698.18	687.80	N/A	N/A	0.48	0.98	N/A	N/A
Heating aid	974.84	1014.16	819.21	849.22	N/A	N/A	490.23	857.30	443.25	220.08	1.99	1.18	1.85	3.86
Taxes														
Personal income tax	13293.4	12724.4	14744.6	14808.3	N/A	N/A	18546.3	19043.10	19076.40	N/A	0.72	0.67	0.77	N/A
Tax allowance	59512.4	61150.1	60938.3	60937.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social insurance contributions														
Employee contributions														
Social insurance contributions (pension, invalidity, death)	11317.0	10909.0	12095.7	12095.7	N/A	N/A	11112.08	10657.59	11329.55	N/A	1.02	1.02	1.07	N/A
Unemployment	538.91	519.48	575.98	575.98	N/A	N/A	644.35	586.72	496.94	559.79	0.84	0.89	1.16	1.03
Self-employed contributions														
Social insurance contributions	3594.66	3898.29	1255.36	1241.99	N/A	N/A	383.52	404.40	464.44	N/A	9.37	9.64	2.70	N/A
Sickness	97.62	105.86	34.09	33.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Accident	114.85	124.55	37.97	37.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Employer contributions														
Social insurance contributions	22418.51	21610.26	23960.92	23960.92	N/A	N/A	22113.58	21229.88	23432.55	N/A	1.01	1.02	1.02	N/A
Unemployment	538.91	519.48	575.98	575.98	N/A	N/A	677.55	590.52	500.82	568.39	0.80	0.88	1.15	1.01
Sickness	916.00	883.04	979.11	979.16	N/A	N/A	808.52	796.89	891.15	N/A	1.13	1.11	1.10	N/A
Accident	161.67	155.84	172.80	172.80	N/A	N/A	323.92	249.35	259.99	N/A	0.50	0.62	0.66	N/A
Salary guarantee contribution	228.87	220.62	244.62	244.62	N/A	N/A	221.92	221.97	195.89	207.71	1.03	0.99	1.25	1.18
Health insurance contributions (all)														
Health insurance contributions paid by employee. self-employed. pensioners etc. (contributed health insurance not included)	20048.77	19512.05	21207.68	20192.74	N/A	N/A	12753.72	12110.48	13868.15	N/A	1.57	1.61	1.53	N/A
Credited social & health insurance contributions														
Social insurance contributions paid on behalf of the unemployed and recipients of sickness and maternity indemnities	67.76	79.20	83.29	86.46	N/A	N/A	447.70	765.91	N/A	N/A	0.15	0.10	N/A	N/A
Health insurance contributions paid for the unemployed. recipients of child raising allowance. recipients of sickness and maternity indemnities. recipients of the guaranteed minimum income	147.75	164.00	122.74	124.07	N/A	N/A	171.25	261.00	203.83	N/A	0.86	0.63	0.60	N/A

Notes: *-figures for 2012 refer to the first quarter; employer sickness contribution is the aggregated employer and self-employed with employees sickness contribution; N/A-not available; - not applicable

Sources: EUROMOD 7.0+; External statistics:for benefits, Ministry of Labour, Family and Social Protection, www.mmuncii.ro, Statistical Bulletin on Labour and Social Protection; for personal income tax, the State Budgets, Ministry of Finance (for 2010 it is provisional data); for social insurance and accident contributions, the Social Insurance Budgets, National Pensions House; for health insurance and sickness contributions, the Health Insurance Budget, the National Health Insurance House; for unemployment insurance and salary guarantee fund contributions, the Unemployment Insurance Budget, the National Employment Agency.



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

As it is shown in the table below (Table 4.9), the income distribution slightly differs between the two sources, EUROMOD and SILC. The mean and median income are slightly lower in EUROMOD, while the income inequality indexes are under-simulated (the income share ratio S80/ S20, Gini). 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 in the 10th decile leads to the under simulation of the S80/ S20 measure.

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. Secondly, Table 4.8 shows that 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 that could be brought forward. However, overall- differences between EUROMOD generated results and the external benchmark are small.

Table 4.9 Income distribution

Indicator	EUROMOD (I)				External Source (II)				Ratio (I/II)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Decile shares												
1	2.309	2.455	2.638	2.645	2.4	2.2	N/A	N/A	0.96	1.12	N/A	N/A
2	4.259	4.364	4.369	4.351	4.2	4.2	N/A	N/A	1.01	1.04	N/A	N/A
3	5.701	5.8	5.781	5.781	5.7	5.6	N/A	N/A	1.00	1.04	N/A	N/A
4	6.905	6.92	6.956	6.924	6.8	6.9	N/A	N/A	1.02	1.00	N/A	N/A
5	8.153	8.186	8.22	8.129	8.0	8.1	N/A	N/A	1.02	1.01	N/A	N/A
6	9.435	9.486	9.27	9.382	9.3	9.5	N/A	N/A	1.01	1.00	N/A	N/A
7	10.954	10.91	10.878	10.929	10.8	10.9	N/A	N/A	1.01	1.00	N/A	N/A
8	12.904	12.848	12.855	12.853	12.9	12.9	N/A	N/A	1.00	1.00	N/A	N/A
9	15.646	15.687	15.541	15.559	15.5	15.7	N/A	N/A	1.01	1.00	N/A	N/A
10	23.736	23.344	23.492	23.447	24.4	23.9	N/A	N/A	0.97	0.98	N/A	N/A
Median	8587.576	8504.533	9112.46	9160.49	8636.00	8915	N/A	N/A	0.99	0.95	N/A	N/A
Mean	9737.651	9659.663	10421.78	10489.23	10066.00	10164	N/A	N/A	0.97	0.95	N/A	N/A
Gini	0.328	0.322	0.32	0.32	0.333	0.332	N/A	N/A	0.98	0.97	N/A	N/A
S80/S20	5.996	5.723	5.57	5.576	6	6.2	N/A	N/A	1.00	0.92	N/A	N/A

Notes: Based on 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; computed at the individual level.

Sources: EUROMOD 7.0+; Eurostat statistics database-

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

4.2.2 Poverty rates

The calculations based on EUROMOD are generally consistent with the information from SILC regarding the poverty rates. In general, EUROMOD produces slightly higher poverty rates than SILC in 2009 and slightly lower ones



compared to SILC in 2010. In all likelihood this is due to the fact that a series of austerity measures have been introduced in Romania in July 2010. As EUROMOD simulates policies in effect on the 30th of June, the austerity measures are not captured. 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 for the two oldest age groups, especially in 2009. This may be due to the frequent changes made during this period to the calculation of health insurance contributions due on pension income, the timing of which is not captured accurately in EUROMOD (as policies are simulated as of 30th of June). It may also be due to the strong underestimation of the minimum old-age pension in 2009.

Table 4.10 At risk of poverty rates by gender and age

Indicator	EUROMOD (I)				External Source (II)				Ratio (I/II)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
40% median HDI												
Total	10.54	10.07	9.057	8.918	9.7	10.7	N/A	N/A	1.087	0.941	N/A	N/A
Males	10.941	10.586	9.567	9.458	9.8	11.1	N/A	N/A	1.116	0.954	N/A	N/A
Females	10.158	9.579	8.573	8.404	9.6	10.3	N/A	N/A	1.058	0.930	N/A	N/A
50% median HDI												
Total	16.115	15.207	15.063	15.116	15.0	16.1	N/A	N/A	1.074	0.945	N/A	N/A
Males	16.057	15.63	15.035	15.102	14.8	16.0	N/A	N/A	1.085	0.977	N/A	N/A
Females	16.171	14.805	15.089	15.13	15.2	16.1	N/A	N/A	1.064	0.920	N/A	N/A
60% median HDI												
Total	21.598	21.082	20.362	20.504	21.1	22.2	N/A	N/A	1.024	0.950	N/A	N/A
Males	22.102	21.402	20.727	20.863	20.7	21.9	N/A	N/A	1.068	0.977	N/A	N/A
Females	22.102	21.402	20.727	20.863	21.4	22.5	N/A	N/A	1.033	0.951	N/A	N/A
70% median HDI												
Total	28.299	27.769	27.533	27.328	27.6	29.0	N/A	N/A	1.025	0.958	N/A	N/A
Males	28.299	27.769	27.533	27.328	27.1	28.4	N/A	N/A	1.044	0.978	N/A	N/A
Females	29.391	28.427	28.484	28.335	28.0	29.6	N/A	N/A	1.050	0.960	N/A	N/A
60% median HDI												
0-15 years	30.411	30.115	29.333	29.643	31.3	32.40	N/A	N/A	0.972	0.929	N/A	N/A
16-29 years	26.173	26.562	25.639	25.565	25.3	29.70	N/A	N/A	1.035	0.894	N/A	N/A
30-44 years	20.486	20.481	20.028	20.21	20.3	21.80	N/A	N/A	1.009	0.939	N/A	N/A
45-64 years	16.604	16.07	14.939	15.016	14.3	15.70	N/A	N/A	1.161	1.024	N/A	N/A
65+ years	18.918	15.502	15.033	15.137	16.7	14.10	N/A	N/A	1.133	1.099	N/A	N/A

Notes: 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.

Sources: EUROMOD 7.0+; Eurostat statistics database-

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

4.2.3 Validation of minimum wage

The simulations in the baseline scenario and the scenario with the minimum wage included which corrects the employment income with the minimum wage based on hours worked and on the number of months worked are consistent in comparison to each other. The differences between the two scenarios are small and in the expected direction.



Table 4.11 Impact of minimum wage

	Baseline (I)				Minimum wage included (II)				Ratio (I/II)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Disposable income (total)	135825.1	135051.8	145511.5	146553.9	136169.4	135466.2	145976.7	147136.8	0.997	0.997	0.997	0.996
Gross employee earnings (total)	107781.3	103890.4	115196.6	115196.6	108266.7	104471.7	115866.4	116040.8	0.996	0.994	0.994	0.993
Income tax (total)	13311.23	12740.79	14763.84	14827.5	13360.28	12798.06	14836.03	14922.86	0.996	0.996	0.995	0.994
Employee SICs (total)	11855.94	11427.94	12671.63	12671.63	11909.34	11491.88	12745.3	12764.48	0.996	0.994	0.994	0.993
Social assistance (total)	1413.57	1823.68	1024.61	1035.68	1413.08	1822.41	1023.73	1034.8	1.000	1.001	1.001	1.001
Gini (Eq HDI)	0.33	0.32	0.32	0.32	0.33	0.32	0.32	0.32	1.000	1.000	1.000	1.000
At poverty risk (60% median HDI)	0.22	0.21	0.21	0.21	0.22	0.21	0.20	0.20	1.000	1.000	1.050	1.050

Source: EUROMOD 7.0+



4.3 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 in 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 2010 SILC with 2009 income data, for the consequent years the monetary variables are uprated with income specific uprating factors. The socio-demographic characteristics, labour market variables and not simulated income variables are not updated, remaining at their initial values.
- Many of the benefit income variables 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, especially for 2009 and 2010, when the number of registered unemployment has grown significantly (by 90% compared to 2007).
- Average employment income and total employment income are below external benchmarks, as well property income, while self-employment income is over estimated in the dataset.
- There is a large drop in self-employed who are simulated to be paying social insurance contributions in 2011; this drop is due to a change in policy rules between 2010 and 2011; however, the corresponding drop in external statistics is much smaller.
- The number of recipients of the guaranteed minimum income is severely overestimated in EUROMOD. 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).
- 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 (*allowance for new born children, outfit for new born children, child raising allowance*) are under-simulated both in numbers and amount mainly because there are not enough children aged 0 in the dataset.
- Means-tested benefits for families with children are strongly overestimated particularly in 2011 and 2012
- 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 a calibration exercise carried out for the minimum guaranteed income, it is assumed 100% benefit take-up and compliance rates.

5. REFERENCES

- Romanian Statistical Yearbook 2010-2007, National Institute of Statistics, Romania.



- Statistical Bulletin for Labour and Social Protection, 2009-2011, Ministry of Labour, Family and Social Protection, www.mmuncii.ro
- Strategic National Report regarding Social Protection and Social Inclusion, 2008, Ministry of Labour, Family and Social Protection
- Household Budget Survey Methodology, National Institute for Statistics, 2010, www.insse.ro
- Statistics on Income and Living Conditions (EU-DILC 2008), Intermediate Quality Report, National Institute for Statistics, 2008, www.insse.ro
- Social Insurance Budgets, 2009-2011, National House for Pensions, www.cnpas.org
- Unemployment Budgets, 2009-2011, National Agency for Employment, www.anofin.ro
- Health Insurance Budgets, 2009-2011, National House for Health Insurances, www.cnas.ro
- State Budgets, 2009-2011, Finance Ministry, www.mfinante.ro
- The National Authority for Disabled Persons, www.anph.ro

- *Sources for tax-benefit descriptions/rules*

www.mmuncii.ro

www.anps.ro

www.cdep.ro

www.edu.ro