

EUROMOD

COUNTRY REPORT



LITHUANIA (LT)

2009-2013

Viginta Ivaškaitė-Tamošiūnė, Romas Lazutka, Lina Salanauskaitė

14/04/2014



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 Lithuania. 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.

EUROMOD coordinator: Holly Sutherland

EUROMOD coordinator assistant: Cara McGenn

EUROMOD developer responsible for Lithuania: Jekaterina Navickė

National team for Lithuania: Viginta Ivaškaitė-Tamošiūnė, Romas Lazutka, Lina Salanauskaitė

The results presented in this report are derived using EUROMOD version G2.0. EUROMOD is continually being improved and the results presented here may not match those that would be obtained with later versions of EUROMOD.

For more information, see: <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 equal opportunities 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.

CONTENTS

1.	BASIC INFORMATION	5
1.1.	Basic information about the tax-benefit system	5
1.1.1	Commonly used parameters and definitions	7
1.2	Social Benefits	9
1.3	Social contributions	16
1.4	Taxes	18
2.	SIMULATION OF TAXES AND BENEFITS IN EUROMOD	20
2.1	Scope of simulation	20
2.2	Order of simulation and interdependencies	26
2.3	Policy switches	27
2.4	Social benefits	27
2.4.1	Birth grant (<i>bchba_s</i>)	27
2.4.2	Child benefit (<i>bch00_s</i>)	28
2.4.3	Pregnancy grant (<i>bmaprnc_s</i>)	29
2.4.4	Maternity leave benefit (<i>bmaprct_s</i>)	30
2.4.5	Paternity leave benefit (<i>bplct_s</i>)	32
2.4.6	Maternity (paternity) leave benefit (<i>bmact_s</i>)	33
2.4.7	Social benefit (<i>bsa00_s</i>)	35
2.4.8	Unemployment social insurance benefit (<i>bunct_s</i>)	41
2.5	Social contributions	44
2.5.1	Employee social insurance contributions (<i>ils_sicee</i>)	44
2.5.2	Employer social insurance contributions (<i>ils_sicer</i>)	44
2.5.3	Credited social contributions (<i>ils_sicct</i>)	45
2.5.4	Self-employed social contributions (<i>ils_sicse</i>)	47
2.5.5	Compulsory health insurance contributions for those not otherwise insured (<i>thl_s</i>)	50
2.6	Minimum wage	50
2.7	Personal income tax (<i>tin_s</i>)	51
2.7.1	Tax unit	51
2.7.2	Exemptions	51
2.7.3	Tax allowances	51
2.7.4	Tax base	54
2.7.5	Tax schedule	55
2.7.6	Tax credits (deductible expenses)	56
2.7.7	Withholding tax and final tax liability	57
3.	DATA	58
3.1	General description	58

3.2	Sample quality and weights	59
3.2.1	Non-response	59
3.2.2	Weights	59
3.2.3	Item non-response and under-reporting	60
3.3	Data adjustment	61
3.4	Imputations and assumptions	61
3.4.1	Time period	61
3.4.2	Gross incomes	61
3.4.3	Merged and imputed variables	62
3.5	Updating	63
4.	VALIDATION	63
4.1	Aggregate Validation	63
4.1.1	Definition of disposable income	64
4.1.2	Validation of incomes inputted into the simulation	65
4.1.3	Validation of outputted (simulated) incomes	67
4.1.4	Income distribution	69
4.1.5	Income inequality	69
4.1.6	Poverty rates	70
4.1.7	Validation of minimum wage	71
4.1.8	Validation of employment adjustments	71
4.1.9	Summary of “health warnings”	71
	References	72
ANNEX I: VALIDATION TABLES		74
ANNEX II: RECALCULATIONS OF PENSIONS		83
ANNEX III: UPDATING FACTORS		85

1. BASIC INFORMATION

1.1. Basic information about the tax-benefit system

- The Lithuanian benefit system is organized mainly on the state level. Municipalities provide a few local benefits, such as a municipal support which is given to families in need (e.g. asocial or dysfunctional families). However, this benefit is mainly based on available local budget and does not have pre-defined eligibility rules. In other cases, municipal authorities set parameters which indicate local living standards, but are used by state defined benefits or tax programs¹.
- Tax-benefit system is a unified national system in Lithuania. The one exception is business certificate (see more details on this type of taxation in chapter 1.6), which acquisition price varies across municipalities.
- The “fiscal year” runs from 1st January to 31st December.
- Main benefit and tax changes often happen at different times of the fiscal year, i.e. such as 1st July. For example, basic pension amount and minimum monthly salary are usually changed as of 1st July.
- Retirement age: the *Law on State Social Insurance* pensions, which came into force in 1995, has foreseen that the state pension age should gradually increase from 55 to 60 years for women and from 60 to 62.5 years for men. Effectively, the state pension age on 30th June, 2005 was 59.5 for women and 62.5 for men. As of 2006, the final statutory retirement age both for men and women has been reached: 62.5 and 60 respectively. It did not change during the course of 2006-2011. Since 1st January, 2012 the state pension age should gradually increase by 4 months yearly from 60 to 65 years for women and by 2 months yearly from 62.5 to 65 years for men Effectively, the state pension age on 30th June, 2012 was 60 years and 4 months for women and 62 years and 8 months for men For all the changes in pension age for women and for men from 2012 until 2026 see Table 1.

Table 1 Pension age for women and men effective on June 30, 2012-2026

Year	Women	Men
2012	60 years 4 months.	62 years 8 months
2013	60 years 8 months	62 years 10 months
2014	61 years	63 years
2015	61 years 4 months	63 years 2 months
2016	61 years 8 months	63 years 4 months
2017	62 years	63 years 6 months
2018	62 years 4 months	63 years 8 months
2019	62 years 8 months	63 years 10 months
2020	63 years	64 years
2021	63 years 4 months	64 years 2 months
2022	63 years 8 months	64 years 4 months
2023	64 years	64 years 6 months
2024	64 years 4 months	64 years 8 months
2025	64 years 8 months	64 years 10 months
2026	65 years	65 years

¹ For example, in case of granting social assistance municipal authorities have a right to:

- grant social assistance benefit in the form of services (i.e. food) for longer than three months’ period after (a standard period set by the law).
- approve procedures on payments of state entitlements or average fuel prices (i.e. in case of social assistance).

- The minimum school leaving age is 16 years old. Compulsory education is from age 7 to 16. The age of majority is 18².
- *Dependent child* definition:
 - a. By default, the “*dependent child*” status is lost (unless recognized by the court otherwise) if a person has a partner (married or legally cohabitating) or becomes a parent herself.
 - b. Generally, *for tax and benefit purposes*, dependent children are own or adopted children (except fostered children) under 18 years of age.
 - c. *For benefit purposes*, persons between ages 18 (hereinafter referred to as inclusive) up to 24 years (hereinafter referred to as exclusive) old are *often* considered to be dependent children, if they are (a) unmarried and not living together with another person, (b) not parents themselves, and (c) full-time pupils and students of general education schools or other institutions of formal education, as well as persons from the day of finishing general education schools which they attended as full-time pupils until 1st September of the same year. The precise “dependent child” definition is usually a benefit specific definition, and could cover different conditions, as in the two examples below:
 - For social assistance, persons up to the age of 24, (unless married, living together with another person or parents themselves) if unemployed or studying full-time, can only be treated as dependent children, therefore, restricting their rights to claim the benefit as a “single person”.
 - For child benefit purposes, enrolment in full-time secondary education is required for children at the age of 18 or older, who are raised in families with up to two children. Children up to the age of 24 are eligible, if raised in families with three or more children and enrolled in secondary, vocational, post-secondary or higher education.
 - d. *For tax purposes*, dependent children are defined as children under the age of 18 or older, if in full-time secondary education.
- Lone parent is defined as a parent of a dependent child, not legally married or officially cohabiting (cohabitation is approved by the official contract) to anyone.
- The income tax system is an individual system, with the spouses being assessed independently.
- Different income sources are taxed differently in 2005-2008 (e.g. salaries, income from authorship contracts). Reduced personal income tax rate was abandoned since 2009 (see Section 2.6).
- Taxpayers can fill a tax return form in order to make deductions from income tax or to return unused annual tax allowance at the end of the financial year, although it is not obligatory, unless in cases of gaining non-work related income.
- Generally, no statutory indexing regimes are applied for Lithuanian benefits or taxes. For example, some laws foresee inflation indexation, such as in case of flat rate pensions.
- The means-tested benefit system assesses entitlement according to the average per capita monthly income of benefit unit according to the last three or twelve months’

² Majority is an age threshold, recognized by the law, as a moment when a child assumes control over his/her actions, thereby terminating the legal control and legal responsibilities of parents or guardians.

income history. The benefit unit is the nuclear family - the married couple or single adult plus any dependent children.

1.1.1 Commonly used parameters and definitions

Social benefits, pensions and compensations are often calculated in relation to reference amounts, as indicated below.

MSL refers to a “minimum standard of living (*minimalus gyvenimo lygis*)” and is estimated by the Government in accordance with the procedure established by *the Law of Republic of Lithuania on Individual Income Security (1994)*. As of August 2008³, a term Basic Social Allowance (*bazinė socialinė išmoka (BSA)*) replaced the MSL term. For the reference purpose, we are going to use MSL rather than BSA when describing 2005-2008 policy systems. Table 1.5 shows MSL levels which were effective on 30th June 2005-2013.

The State Supported Income (*valstybės remiamos pajamos*) level (hereinafter referred to as “**SSI**”) is the Government approved personal income level after taxes and contributions, but before transfers of cash social assistance. Table 1.1 shows SSI levels which were effective on 30th June 2005-2013.

Table 1.1 Monthly MSL and SSI levels effective on June 30, 2005-2013, LTL

	2005	2006	2007	2008	2009	2010	2011	2012	2013
MSL (BSA)	125	125	130	130	130	130	130	130	130
SSI	135	165	205	285	350	350	350	350	350
				350					
				(since 2008.08.01)					

Source: Based on *the relevant version of Government of Lithuanian Republic Resolution „Dėl bazinės socialinės išmokos dydžio patvirtinimo“* and *„Dėl valstybės remiamų pajamų dydžio patvirtinimo“*.

As Table 1.5 shows, the monthly MSL (BSA) level haven’t changed since 2007, but monthly SSI level was increased from LTL285 to LTL350 since the 1st August, 2008 and was kept constant in 2009-2013.

A number of other commonly used definitions for benefit calculations, such as income lists, are presented here:

Reimbursable Income (*draudžiamosios pajamos*), hereinafter referred to as “**RI**”, defines the *list* of the person’s *insured income* on the basis of which a number of contributory benefits, such as maternity leave and paternity leave benefits, sickness benefit or unemployment benefit, are paid.

Insured income includes all income of a person on which state social insurance contributions were (or had to be) paid:

- earnings;
- sickness benefit (including the first two days of sickness for which the employer pays), vocational rehabilitation, maternity leave, paternity leave, maternity (paternity) leave benefits set by *the Law on Sickness and Maternity Social Insurance*;
- sickness benefits due to occupational accidents or occupational disease allowances payable in accordance with *the Law on Social Insurance of Occupational Accidents and Occupational Diseases*;

³ Lietuvos Respublikos Seimas (2008). *Minimaliojo darbo užmokesčio dydžių, socialinės apsaugos išmokų ir bazinio bausmių ir nuobaudų dydžio indeksavimo įstatymas. Valstybės žinios: 2008-07-22 Nr.83-3294*

- unemployment social insurance allowances payable in accordance with *the Law on Unemployment Social Insurance*.⁴

Vocational rehabilitation income, as *insured income*, has been added to the list as of 2006. The rest of the **RI** income list did not change over the period of 2005-2008, although there were some important changes made to insured income list and valid starting from 1st January, 2009. The main changes were: inclusion of income from sports, performing or authorship agreements into the insured income list; inclusion of annual income of self-employed persons and some other groups (solicitors, bailiffs, individual business owners, farmers and partners, etc.) into the insured income list.⁵ There were no major changes made to the insured income list in 2010 and 2013.

The **average monthly reimbursable income (AMRI)** is the sum of the **RI** incomes averaged over the last three months before the right to the relevant benefit has been granted. Since 1st July 2009 AMRI was averaged over the 9 months and since 1st October 2009 – over 12 months one month before the right to maternity leave, paternity leave and maternity (paternity) leave benefits.⁶ Changes didn't affect other benefits, such as vocational rehabilitation allowance and occupational disease allowance which are still based on income averaged over 3 months' period. No major changes were made in 2010-2013.

Current year's insured income (*einamųjų metų draudžiamosios pajamos*), is the state approved income threshold mainly used for the purpose of state social insurance benefit calculations and defined by the *Law on State Social Insurance Pensions*. Table 1.2 shows *current year's insured income* (hereinafter referred to as "**CYI**") levels which were effective on 30th June 2005-2013.

Table 1.2 Current year's insured income (monthly), 30th June 2005-2013, LTL

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Current year's insured income (CYI)	1,084	1,212	1,356	1,414	1,488	1,170	1,170*	1,488	1,488

Source: Based on *the Government of Lithuanian Republic Resolution "Dėl Valstybinės Socialinio Draudimo Bazinės Pensijos Padidinimo ir Einamųjų 2005 Metų Draudžiamųjų Pajamų Naujo Dydžio Patvirtinimo"* [25.05.2005] and relevant changes.

* In 2010 the CYI of LTL 1,170 was applied for calculation of all applicable benefits, except of the state social insurance pensions, in which case the 2009 level of CYI should be taken into account.

State social insurance basic pension (*valstybinio socialinio draudimo bazinė pensija*) is the state approved amount, mainly used for the calculation of social insurance benefits, such as old-age pension or vocational rehabilitation allowance.

Table 1.3 Basic monthly pension, 30th June 2005-2013, LTL

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Basic monthly pension, LTL	172	200	266	316	360	360	360	360	360

Source: Based on *the Law of State Social Insurance Pensions LRG Decision "Dėl Valstybinės Socialinio Draudimo Bazinės Pensijos Didinimo ir Einamųjų Metų Draudžiamųjų Pajamų Patvirtinimo"*, 2004 March 24, No. 235, and its relevant amendments and changes

⁴ *Insured income is defined by the "Lietuvos Respublikos Valstybinio socialinio draudimo įstatymas"*.

⁵ Further changes to the article defining insured income list were made in July and December 2009, and later in June 2010.

⁶ Based on the following law "Lietuvos Respublikos Ligos ir motinystės socialinio draudimo įstatymo 3, 4, 5, 6, 8, 9, 16, 18, 19 straipsnių pakeitimo ir papildymo Įstatymas". 2008.12.18 Nr. XI-71.

http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=334539

Most of the state pensions in Lithuania are calculated in relation to the **state pension base** (*valstybinių pensijų bazė*), the amounts of which during the period of 2005-2013 are indicated below:

Table 1.4 State pension base and minimum monthly salary,, 30th June 2005-2013, LTL

	2005	2006	2007	2008	2009	2010	2011	2012	2013
State pension base, LTL	138	138	172	200	200	200	200	200	200
Minimum monthly salary (MMS)	500	550	600	800	800	800	800	800	1000

Source: Based on the Government of Lithuanian Republic Resolution “*Dėl Biudžetinių Įstaigų Ir Organizacijų Darbuotojų Darbo Užmokesčio, Valstybinės Socialinio Draudimo Bazinės Pensijos ir Minimalių Dydžių Didinimo*” [01.04.1998] and its relevant changes.

Minimum monthly salary (*minimali mėnesinė alga*), which is listed in Table 1.8, is used for calculations of such social benefits, as educational stipends. This reference amount is also used for defining social contributions (see more details in section 2.5.3).

1.2 Social Benefits

- *Non-contributory benefits*

All non-contributory benefits are non-taxable.

Birth grant (*vienkartinė išmoka gimus vaikui*): a lump-sum cash benefit paid upon the birth of a child; it amounted to 8 MSL per child during the entire 2005-2008 period. Since January 1, 2009 the birth grant has increased to 11 MSL per child.⁷ No changes were made in 2010-2013.

Child benefit (*išmoka vaikui*): a monthly cash benefit paid to a family raising one or more dependent children. The benefit level is calculated in relation to MSL (BSA) and varies based on the number of children in the family and their age. Since the 1st March, 2009 entitlement to the benefit became means tested for families that raise one or two children aged 3-18 or 21 if in full-time education.⁸ Starting from January 1, 2010 both eligibility criteria and the income test were tightened according to the Temporary Law on Recalculation and Payment of Social Benefits. Since the 1st January, 2012 entitlement to the benefit became means tested also for families that raise one or two children aged less than 3 years as well. Since then no changes were made.

Benefit to a conscript’s child (*išmoka privalomosios tarnybos kario vaikui*): a monthly benefit paid for each child in the amount of 1.5 MSL during the military service of the father. The level of the benefit did not change during the course of 2005-2013. According to *Law on the Benefits to Children*, the benefit is paid to the mother of the child of a conscript, unless she is not a permanent resident of the Republic of Lithuania. In that case, the benefit is paid to the child’s father. The recipient of this benefit is also entitled to a child benefit as described above.

⁷ Based on the following law “Lietuvos Respublikos Išmokų vaikams įstatymo 1, 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 18, 20, 22 straipsnių ir antrojo, trečiojo skirsnių pavadinimų pakeitimo įstatymas”. 2008.07.01. Nr. X-1664: http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=324329

⁸ Based on the following law “Lietuvos Respublikos Išmokų vaikams įstatymo 6, 8, 12, 13, 20 straipsnių pakeitimo ir papildymo ir 22 straipsnio pripažinimo netekusiu galios įstatymas”. 2008.12.19 Nr. Xi-90: http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=334470

Guardianship benefit (*globos (rūpybos) išmoka*): a monthly benefit to a child placed under guardianship in a family or non-governmental guardianship institution during the period of the guardianship (curatorship). Its amount equalled 4 MSL per month in 2005 and 2006 (as of 30th June). Since 2007, the guardianship benefit is paid as a difference between 4 MSL and the cumulative amount of an orphan's pension and (or) a child maintenance obligation. If upon the expiration of a child's guardianship (curatorship) due to turning 18 years old,⁹ emancipation or entering marriage, a child continues in full-time secondary, vocational, post-secondary or higher education, he or she is paid an applicable guardianship benefit until the age of 24. Since the 1st January 2009 the amount of the guardianship benefit for a child who is under guardianship in a family-type guardianship institution (with more than 6 children) was set to 8 MSL (BSA), or the difference between 8 MSL (BSA) and cumulative amount of an orphan's pension and (or) a child maintenance obligation.¹⁰ If the child under guardianship is on free boarding at a secondary or vocational school the amount of the guardianship benefit decreases to 2 MSL (BSA). No major changes were made in 2010-2013.

Grant for housing (settlement) (*vienkartinė išmoka įsikurti*): a lump sum 50 MSL benefit in 2005-2008 and a lump sum of 75 MSL (BSA) in 2009, given to a child upon the expiration of a guardianship due attaining the legal age of 18, emancipation, or contracting a marriage. The benefit is given to purchase a dwelling or to cover accommodation related expenses. The benefit cannot be paid in cash unless the unused part of the grant is less than 1 MSL (BSA). No changes were made in 2010-2013.

Pregnancy grant (*vienkartinė išmoka nėščiai moteriai*): a lump-sum benefit to a pregnant woman who is not eligible to receive a maternity leave benefit. The grant amounts to 2 MSL and is paid 70 days before the term of child birth. The benefit remained unchanged during the course of 2005-2013.

Social benefit (*socialinė pašalpa*): granted to families or single persons if they pass established eligibility, assets and income tests. The monthly per capita benefit is equal to 90% of the difference between 1*SSI and per capita family income. Social assistance benefit is granted for three months. The application must be re-submitted upon benefit expiration, unless local authorities have granted the benefit for the period exceeding three months. There were no major changes to social benefits in 2010-2011. Since 1st January 2012 several changes were introduced: equivalence scales for benefit amount, reduction of benefit amount for long term dependants on Social benefit and payment of Social benefit for former long-term unemployed during the first 6 months of employment.

All municipalities pay social assistance benefits to residents from targeted subsidies allocated to them from the national budget. However since 1st January 2012 in 5 municipalities (Municipality of Akmenė, Panevėžys, Radviliškis, Raseiniai, Šilalė) Social benefit providing function is transferred to municipalities' discretion and this benefit is paid from their budgets. Thus, after the assessment of specific local conditions and circumstances these municipalities will have more power in granting social assistance benefit (for example, to pay additional social assistance benefit, to reduce the amount of social assistance benefit, etc.). No major changes were made in 2013.

State social assistance benefits/pensions (*valstybinės šalpos išmokos*): there are five types of social assistance pensions: social assistance pensions; orphan's social assistance pension;

⁹ The legal age of majority.

¹⁰ Based on the following law "Lietuvos Respublikos Išmokų vaikams įstatymo 6, 8, 12, 13, 20 straipsnių pakeitimo ir papildymo ir 22 straipsnio pripažinimo netekusiu galios įstatymas". 2008.12.19 Nr. XI-90. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=334470

targeted compensations for nursing expenses; nursing allowances; relief compensations. Social assistance pensions are calculated in relation to a *basic monthly pension* (see Table 1.7).

Compensations for special working conditions (*kompensacijos už ypatingas darbo sąlygas*) are paid to people who have worked in hazardous jobs. The monthly compensation is equal to 150% of the basic monthly pension (see Table 1.7). It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011.

State pensions:

State pensions of degree one or two of the Republic of Lithuania (*Lietuvos Respublikos pirmojo ir antrojo laipsnių valstybinės pensijos*) are awarded to citizens for distinguished achievements or for individual or respective status (i.e. top-level state officials, prizemen of Olympic Games, etc), if these persons have attained an old-age retirement age or have partially or fully lost their capacity to work. The limit for assigning new state pensions is not more than 15 new degree one pensions and not more than 45 new degree two pensions per year. A state pension of the first degree is equal to 4 *state pension bases*. A state pension of the second degree amounts to 2 *state pension bases* (see Table 1.8). It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and it is hold on until 31 12 2012. According to the decision made at the end of 2012, provisions of this law remain in force until 31 12 2013.

State pensions for victims (*nukentėjusiųjų asmenų valstybinės pensijos*) are given to the persons recognised as incapable or partially capable of work due to a number of state recognized aggressions (i.e. 11-13 January 1991 events), political imprisonment, deportations, participation in the resistance to the occupation, for participants in elimination of the consequences of the accident at the Chernobyl Nuclear Power Plant, or persons who became disabled due to military service in the Soviet Army. These pensions are paid if persons have attained an old-age retirement age or have partially or fully lost their capacity to work. The pension amount is calculated in relation to the *state pension base* (see Table 1.8) and varies for different victim groups.

State Pensions for officers and soldiers (*pareigūnų ir karių valstybinės pensijos*) are awarded to officers and soldiers or their family members. There are three types of these pensions: for the service; for lost capacity for work; for widows and orphans. The assigned pension amount is calculated based on the service record and former wage. It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and it is hold on until 31 12 2012. According to the decision made at the end of 2012, provisions of this law remain in force until 31 12 2013.

State pensions for scientists (*mokslininkų valstybinės pensijos*) are awarded to scientists on the basis of *the temporary Law on State Pensions for Scientists*. These pensions are given to individuals with an academic degree or title and at least a 10 year career of a doctor or habilitated doctor at the age of old-age pension or having lost 60–100% of their capacity for work. The size of the pension depends on the insurance record and is calculated in relation to the *state pension base* (see Table 1.8). It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and it is hold on until 31 12 2012. According to the decision made at the end of 2012, provisions of this law remain in force until 31 12 2013.

State pensions for judges (*teisėjų valstybinės pensijos*) are awarded to the retiring persons, who worked as judges of the Constitutional Court, the Supreme Court of Lithuania, the Court of

Appeal of Lithuania, the Supreme Administrative Court of Lithuania and other Lithuanian general jurisdiction and specialized courts as well as judges of any international court elected or delegated by Lithuania, if they have at least five years of judicial service. The pension amount depends on the service record and is calculated as a percentage of the average salary over the last five years of the judicial work. It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and it is hold on until 31 12 2012. According to the decision made at the end of 2012, provisions of this law remain in force until 31 12 2013.

Persons entitled to receive state pension also have a right to receive state social insurance pension, unless otherwise provided by the law.

- **Contributory benefits**

Taxable contributory benefits:

Maternity leave benefit (*motinystės pašalpa*): a lump sum benefit paid to a pregnant woman who has a right to the *Sickness and Maternity Social Insurance*. The benefit is paid for a total of 126 calendar days, covering the period before and after the child birth. Before 1st July 2009 the maternity benefit was equal to 100% of the recipient's average monthly reimbursable income AMRI (see section 1.4.1 for more details) with minimum and maximum amounts specified. The level of the benefit didn't change in 2010-2011, although the required insurance record was extended and the maximum benefit amount decreased during this period. No changes made in 2012-2013.

Paternity leave benefit (*tėvystės pašalpa*): a lump sum benefit, which is effective since 1st July 2006 and is granted on the basis of *the Law on Sickness and Maternity Social Insurance*. This benefit could be claimed by a father for the first month of child care (from the child birth until the child reaches the age of one month). The benefit is granted on the basis of *the Law on Sickness and Maternity Social Insurance* if a person before the first day of paternity leave had no less than 7 months over the last 24 months of sickness and maternity social insurance record. Before 1st July 2009 the amount of paternity benefit was 100% of the benefit recipient's AMRI (see chapter 1.4.1 for more details) with minimum and maximum thresholds specified. The level of the benefit didn't change in 2010-2011, although the required insurance record was extended and the maximum benefit amount decreased during this period. Since 2011 amount of the benefit is reduced if additional income (eligible for sickness and maternity social insurance contributions) is received. No changes made since 2011.

Maternity (paternity) leave benefit (*motinystės (tėvystės) pašalpa*): a monthly payment granted on the basis of *the Law on Sickness and Maternity Social Insurance* if a person before the first day of childcare leave had no less than 7 months over the last 24 months of sickness and maternity social insurance record. The benefit is paid to one of the parents (adoptive parents) or a guardian until the child reaches the age of 1 year (or 2 years as of 2008). The benefit was calculated in relation to AMRI until July 2009 (see more details in section 1.4.1) with minimum and maximum levels specified. The level of the benefit didn't change until the 1st July 2010, and was reduced thereafter. The required insurance record was extended and the maximum benefit amount decreased during 2010-2011. Since 1st January 2012 Maternity (paternity) leave benefit duration of payment and its amount became optional. It may be paid 1 or 2 years by decision of beneficiaries. No major changes were made in 2013.

Non-taxable contributory benefits:

Old-age pension (*senatvės pensija*): monthly pension paid for persons who attain the old-age retirement age as specified by the *Pensions' law* and have the minimum insurance period

specified for the old-age pension. A state social insurance pension consists of two parts: the basic part and the supplementary part. The basic pension cannot be less than 110% of MSL (BSA). Since 2004 every person insured for full pension insurance (basic and supplementary parts of pension) may voluntarily choose either to stay only in the social insurance system or switch to the 2nd pension pillar by directing a part of social insurance contributions to a personal account in a chosen privately managed pension fund. This cumulative part of the pension adds to the supplementary part of the old age pension. Early old-age pension (*išankstinė senatvės pensija*) can be claimed up to five years before the regular retirement age with 30 years of insurance and after one year of unemployment. It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011. Amendments to the Law on State Social Insurance Pensions, which envisage a gradual increase in the retirement age, became effective as of 1 January 2012. The retirement age is increased by 4 months per calendar year for women and 2 months per calendar year for men, until it reaches 65 years in 2026. Before 2012, the retirement age for men was 62 years and 6 months, and 60 years for women.

Work incapacity pension (*netekto darbingumo pensija*)¹¹: assigned to a person for whom a certain level of incapacity for work is established. The pension varies according to the assessed degree of disability, as well as a person's attained period of insurance. The *minimum* and *obligatory* insurance periods are defined based on a person's age. The work incapacity pension is calculated in analogy to the old age pension, its basic part is calculated in relation to the basic pension amount (see Table 1.7). It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011. No major changes were made in 2012-2013.

Survivor's or orphan's pension (*našlių ir našlaičių pensija*): pension paid monthly to the spouse and children of a deceased person if the deceased person had been entitled or received the state disability (work incapacity) pension or old-age pension (see above). The pension level has been linked to the insured person's pension during the period 2005-2006. Later on, the survivor pension has been changed to a lump-sum monthly amount, equal to 70 LTL (since January 1st 2010 a coefficient of 0.95 is applied according to a Temporary Law on Recalculation and Payment of Social Benefits). The orphan's pension is linked to the deceased person's pension. It was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011. No major changes were made in 2012-2013.

Unemployment social insurance benefit (*nedarbo draudimo išmoka*) is a monthly benefit paid to the unemployed people if they have a sufficient unemployment social insurance record. The required service record is at least 18 months during the last three years and a person must be actively looking for a job. The duration of benefit payment depends on the unemployment insurance history. The benefit amount is comprised of fixed and variable components, which relate to the SSI, CYI and the averaged *insured income* levels. With the adoption of the Temporary Law on Recalculation and Payment of Social Benefits starting from the 1st January 2010 the monthly benefit was capped at LTL 650 for the entire period of the benefit payment. No changes in 2011-2013.

Sickness benefit (*ligos pašalpa*): granted on the basis of the *Law on Sickness and Maternity Social Insurance* and is given to people who have required social insurance coverage. The benefit is calculated on the basis of reimbursable income (RI) with maximum and minimum

¹¹ Until 1st July 1, 2005 defined as disability (*invalidumo*) pension.

thresholds applied. There were reductions in the sickness benefits valid from June 1, 2009¹² and the upper limit set since January 1, 2010¹³. No changes in 2011-2013.

Vocational rehabilitation allowance (*profesinės reabilitacijos pašalpa*): granted on the basis of the Law on Sickness and Maternity Social Insurance. The allowance is paid monthly for the entire period of the rehabilitation programme, but not for longer than 180 calendar days. The allowance is equal to 85% of AMRI, and it cannot be lower than 2 times *basic monthly pensions* (see Table 1.7), valid before the start of rehabilitation. The benefit has been introduced since 1st July 2005. The rules did not change during the course of 2006-2009. The upper limit for this type of allowance was set since January 1, 2010 until December, 2011 with the introduction of the Temporary Law on Recalculation and Payment of Social Benefits. No changes were made in 2012-2013.

Occupational disease allowance (*profesinės ligos pašalpa*): monthly allowance paid to people, covered by social insurance, at the moment when the right to this benefit has occurred. The benefit is paid until the person's return to work or until the assignment of other benefit, i.e. work incapacity pension. The benefit is calculated on the basis of reimbursable income (RI) and is equal to 100% of the AMRI.

Work incapacity grant (*netekto darbingumo vienkartinė kompensacija*): a lump-sum amount paid in the amount of 10% of the sum of RI, averaged over the last 12 salary months, times 24 (months) if up to 20% of work capacity is (temporarily) lost; or 20% of the sum of RI, averaged over the last 12 salary months, times 24 (months) if less than 30%, but more than 20% of work incapacity is (temporarily) lost. If the lost work incapacity is permanent, then the grant is three times higher than the relevant grant amount, indicated under different degrees of lost (temporary) work incapacity.

Work incapacity periodical compensation (*netekto darbingumo periodinė kompensacija*) is a monthly compensation for insured persons who lost 30% or more of his/her work capacity because of an accident at work or professional disease.

- ***Abolished benefits***

State and state social insurance loss of breadwinner's pensions (*valstybinės maitintojo netekimo pensijos ar valstybinės socialinio draudimo maitintojo netekimo pensijos*) are awarded for the persons deceased before January 1, 1995. The persons who are entitled to receive or who receive these pensions also have a right to simultaneously receive one of the following (if entitled) pensions: the state social insurance old-age, work incapacity, invalidity, retirement, survivor's or orphan's pension. The exception is the orphan's pension which should be paid together with the loss of breadwinner's pension if the other parent was deceased before 1st January 1995. For those still in receipt, it was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011.

Retirement pensions (*ištarnauto laiko pensijos*) are paid if the entitlement to these pensions has been granted before January 1, 1995. A person could choose to opt for old-age or work incapacity pensions instead of the retirement pension. For those still in receipt, it was affected by

¹² Based on the following law "Lietuvos Respublikos Ligos ir motinystės socialinio draudimo įstatymo 9, 10, 14, 211, 24 straipsnių pakeitimo ir papildymo įstatymas". 2009.04.28 Nr. XI-237.

¹³ Based on the following law "Lietuvos Respublikos socialinių išmokų perskaičiavimo ir mokėjimo laikinasis įstatymas". 2009.12.09 Nr. XI-537. Žin., 2009, Nr. 152-6820.

the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011.

Invalidity pensions (*invalidumo pensijos*) are pensions for the disability reasons and awarded before July 1, 2005. Invalidity pensions are paid until the expiration of their entitlement or until other pensions types, such as old-age or work-incapacity pensions have been assigned. Paid invalidity pensions are updates with major parameter changes (i.e. change in social pension base). If people at the same time are entitled to receive the old-age pension, they are entitled to choose a larger pension or one of these pensions at their own choice. For those still in receipt, it was affected by the Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania which came into effect on January 1, 2010 and was hold on until 31 12 2011.

- *Not strictly benefits*

Promotional education stipends (*skatinamosios stipendijos*): educational stipends given to students from all type of higher public educational institutions. The stipends are paid from the institutional scholarship funds based on specific institutional educational performance criteria, while the government defines overarching maximum stipend levels. Maximum levels also depend on the educational institution type. Since 2009 the rate and criteria for receiving promotional education stipends are determined by the schools themselves according to the regulations on the provisions of stipends. No major changes applied in 2010-2013.

Social stipends (*socialinės stipendijos*): is a type of educational stipend given to students from low income families if they study at public educational institutions. Social stipends are assigned to educational establishment, as part of their institutional scholarship fund. Since the 1st January 2009, social stipends (3 MSL (BSA)¹⁴) are paid only for the students in higher education, students have a right to get social stipends and promotional stipends at the same time; students from vocational training institutions can get lump sum payments from the school budget on decision of appropriate administrative body. No major changes applied during 2010-2011. Since the July 1, 2011 the State Studies Foundation is responsible for Social stipends payment.¹⁵ No changes were made afterwards.

Compensations for heating of a dwelling, cold and hot water expenses, and sewage (*kompensacijos už būsto komunalines paslaugas*) (hereinafter referred to as “compensations”): granted to families and single persons if the value of family’s or person’s assets does not exceed the established ratio of property value and if all family members (single persons) meet the same eligibility criteria as described for the receipt of the social benefit. Compensations are only paid for the specified ratios of expenses, based on the notional defined sizes of useful space and ratios for certain types of utilities. There were no major changes to social benefits in 2010-2011. Since 1st January 2012 Compensations are paid also for those, who rent apartments (only owners of apartments were eligible before). The notional defined size of useful space applied for compensations calculation was increased since 1st January 2012. No major changes were made in 2013.

¹⁴ Based on the following resolution “Nutarimas dėl Lietuvos Respublikos Vyriausybės 1995 m. kovo 31 d. nutarimo Nr. 473 „Dėl valstybinių aukštųjų mokyklų dieninės studijų formos pagrindinių, vientisųjų ir antrosios studijų pakopos studentų stipendijų“ pakeitimo”. 2008.10.14 Nr. 1033. http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=329076

¹⁵ Based on the following resolution “Socialinių stipendijų aukštųjų mokyklų studentams skyrimo ir administravimo tvarkos aprašas”. Patvirtinta Lietuvos Respublikos Vyriausybės 2009 m. gruodžio 23 d. nutarimu Nr. 1801. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=390234

Municipal support (*vienkartinės pašalpos iš savivaldybių biudžetų*): municipalities have a right to grant a one-time social support benefit for the families or single persons if they do not pass the income test or the eligibility criteria imposed on the family members. The rules of granting a one-time municipal social support are set at the local authorities' level.

Social assistance to pupils (*socialinė parama mokiniams*): means-tested non-cash benefit that consists of free meals to pupils and free school's supplies prior to the beginning of a new school year.

Compensation for drugs and medical devices (*vaistų ir medicinos pagalbos priemonių įsigijimo išlaidų kompensavimas*): awarded to insured people based on *the Law of Health Insurance*. Children until age of 18 and 1st degree disabled people have a right to 100% compensation for approved drugs and medical devices. Pensioners, other disabled people, or people ill with certain disease have a right to partial compensation of approved drugs and medical devices. People get immediate discounts at pharmacies.

Medical rehabilitation and compensation for sanatorium expenses (*medicininės reabilitacijos ir sanatorinio gydymo išlaidų kompensavimas*): awarded to insured people based on *the Law of Health Insurance*. 100% of medical rehabilitation expenses are compensated for children until the age of 18, 1st degree disabled people and people ill with certain diseases. 90% of basic sanatorium expenses are compensated for children until age 7 and disabled people until age 18. Basic sanatorium prices are defined by the Health Ministry.

Funeral Benefit (*laidojimo pašalpa*): non-contributory lump-sum benefit (equal to 6 MSL in 2005-2007 and 8 MSL in 2008-2013) for the family member of the deceased or for another individual who arranges a burial.

Periodical compensation in case of death of insured (*Periodinė draudimo išmoka apdraustajam mirus*): is paid monthly to family members and the amount is equal to work incapacity periodical compensation divided by the number of persons qualifying for the compensation. This compensation is paid as an entitlement due to occupational accidents or occupational disease insurance social insurance. The benefit calculation rules did not change over the period of 2005-2013.

Grant in case of death of insured (*Vienkartinė draudimo išmoka apdraustajam mirus*): a lump-sum amount paid for the family members of the deceased in the amount of 100* applicable CYI (see Table 1.2). The grant is equally divided for each family member. This grant is paid as an entitlement due to occupational accidents or occupational disease insurance social insurance. The benefit calculation rules did not change over the period of 2005-2013.

Severance pay/compensation (*Išaitinė kompensacija*): paid if the labour contract is terminated at the employer's initiative and no fault of employee is identified. The severance pay/compensation is paid by the employer in relation to the employment duration at the company. This benefit is subject to personal income tax.

1.3 Social contributions

Social insurance contributions (*socialinio draudimo įmokos*) to the State Social Insurance Fund (*Socialinio darudimo fondas, SoDra*) are compulsorily paid by all employers and employees of private and public sectors as well as main categories of self-employed people. Contributions are flat rates without ceilings, but they differ for employees and self-employed. Furthermore, contribution rates vary considerably among different categories of self-employed

people. Social insurance contributions are paid for pension, health care, sickness and maternity, employment injuries, occupational diseases and unemployment insurances.

Employee's contributions: In 2005-2008 all employees of private and public sector paid 3% of gross wages and salaries as social insurance contributions to pension social insurance and to sickness and maternity social insurance. From 2009 all employees of private and public sector pay 3% of gross wages and salaries as social insurance contributions to pension social insurance and 6% to health social insurance.¹⁶

Employer's contributions: All employers of private and public sector pay on behalf of their employees 31% of gross wages and salaries to pension social insurance, sickness and maternity social insurance, unemployment social insurance, health insurance, employment injuries and occupational diseases social insurance.

Contributions for self-employed: Self-employed persons, with the exception of the persons engaged in individual activities under business certificates, paid social insurance contributions for basic and additional pension part, the amount of which depends on their income in 2008. Since 2009 self-employed persons, with the exception of the persons engaged in individual activities under business certificates, pay social insurance contributions for the basic and additional pension part as well as sickness and maternity social insurance (insured only to receive maternity leave benefit, paternity leave benefit and maternity (paternity) benefit).¹⁷ In 2011 the owners of the individual enterprises and 'real members' of agricultural communities are not subject to sickness and maternity social insurance contributions.

Since 2009 social insurance contributions have to be paid on income from sports, performing or authorship/copyright agreements (previously only taxed by PIT). Lower social insurance contribution rates were set for the transitional period (the year 2009, see Section 2 for details). On behalf of certain individual groups government pays contributions (so called *credited contributions*) for all kinds of social insurance.

Self-employed persons engaged in individual activities under business certificates didn't pay social insurance contributions in 2008. Since 2009 self-employed persons engaged in individual activities under business certificates compulsory pay social insurance contributions for the basic pension part. The contribution is equal to 50% of the state basic pension.

Compulsory health insurance contributions (*privalomojo sveikatos draudimo įmokos*): Since 2009 the compulsory health insurance contributions were universalized and set to 9% rate of the taxable income, gross wage or the MMS corresponding to the group the insured person belongs to. The annual compulsory contribution cannot be less than 9% of the 12 MMS valid on the last day of the each month of the year. Until 2009 employees did not have to pay health insurance contributions as they were included in employer paid social insurance contributions (3%) on behalf of the employees. On behalf of certain individual groups government pays contributions (see Section 2.4.3 for details).

Payments to the Guarantee Fund (*įmokos į garantinį fondą*): Enterprises pay contributions to the Guarantee Fund. The rate was 0.2% of the employees' gross salary (which is the basis for calculating social insurance contributions) in the first half of the year 2008. Since 1st July 2008

¹⁶ Based on the following law "Lietuvos Respublikos Valstybinio socialinio draudimo fondo biudžeto 2009 metų rodiklių patvirtinimo įstatymas". Žin., 2008, Nr.149-5998

¹⁷ Based on the following law "Lietuvos Respublikos Valstybinio socialinio draudimo įstatymo 2, 4, 6, 7, 8, 9 straipsnių pakeitimo ir papildymo įstatymas". Žin., 2009, Nr. 25-972

the rate of payments to the Guarantee Fund is 0.1%.¹⁸ Since 1st January 2012 the rate of payments to the Guarantee Fund was increased up to 0.2%.¹⁹ Resources from the Guarantee Fund are allocated to current and past employees of bankrupted enterprises, which are indebted to employees. Since 1st March 2013 payments to the Guarantee Fund must pay not only employers – juridical persons, but also employers – natural persons, farmers and others natural persons engaged in individual activity²⁰.

1.4 Taxes

Personal Income Tax (*asmens pajamų mokestis*): flat rate tax applied on an individual basis. Effective on 30th June 2005, incomes were taxed by 15% or 33% rate according to the source of income. There were changes in the main personal income tax rate (decrease from 33 to 24%) during the course of 2005-2008. Since 2009 all incomes, except incomes from distributed profit, were taxed by 15% rate. Incomes from distributed profit were taxed by 20% rate.²¹ Since 2010 income from individual activities, except of income from “free occupations”²² and from securities, is taxed by 5% rate. The basic general allowance can be applied on employment-related income. On almost all income sources (except self-employed, farmers and income from property sale and so called “other” incomes) income tax is already withheld at the time of payment. Self-employment income and farmers’ income are subject to final tax, which is calculated with the yearly tax declaration. The list of tax-exempt incomes includes more than 50 categories, most importantly, all state social assistance or social insurance benefits, paid from state and municipal budgets or *Social Insurance Fund* (except sickness, maternity leave, paternity leave and maternity (paternity) leave benefits).

Corporate Income Tax (*pelno mokestis*) is paid by Lithuanian and foreign entities. For the purpose of calculating taxable profits of a Lithuanian entity non-taxable income and allowable deductions can be deducted. Since the beginning of 2010 the tax rate on the taxable profits of Lithuanian entities and permanent establishments was 15%. A 10% tax rate without any deductions remained unchanged in 2010 (with some exceptions when 15% rate applied) on the income of a foreign entity, sourced in the Republic of Lithuania, received otherwise than through its permanent establishments situated in Lithuania. Income from redistributed profits is taxed by 15% since 2010 (20% for income from redistributed profits in 2009). Received financial support, used not in accordance to The Law on Charity and Financial Support, and financial support exceeding a total amount of 250 BSA (MSL) is taxed without any deductions by 15% (20% for the 2009 period). Different rates (0%, 5%, 15%) may apply according to the size (number and status of employees) and type of the entity and the profit amount. No major changes applied in 2011-2013.

¹⁸ Based on the following law “*LR Garantinio fondo įstatymo 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13 straipsnių pakeitimo ir papildymo įstatymas*“. Žin., 2008, Nr.79-3100

¹⁹ Valstybinė mokesčių inspekcija:

http://mic.vmi.lt/documentpublicone.do?&id=1000122600&tree_id=1000007371

²⁰ Based on the following law „Lietuvos Respublikos Garantinio fondo įstatymas“. Žin., 2000, Nr. 82-2478. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=450163

²¹ Based on the following law “Lietuvos Respublikos Gyventojų pajamų mokesčio įstatymo 2, 3, 5, 6, 7, 8, 9, 10, 12, 131, 16, 17, 18, 19, 20, 21, 22, 23, 27, 29, 30 straipsnių pakeitimo ir papildymo ir įstatymo papildymo 181 straipsniu įstatymas“. 2008.12.23 Nr. Xi-111: http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=334556

²² “Independent occupation” is defined as an individual independent intellectual services provided by people who have required qualifications to clients and the public. Engaged in independent occupation activities are those independently providing services in the following fields: legal, economic, medical and health protection, education and training, other (lobbyists, architects, engineers, designers, journalists, reporters, stylists, editors, translators, computer programmers, systems designers, project managers, as well as other people, individually providing intellectual service).

Inheritance tax (*paveldimo turto mokestis*) is charged using a progressive tax schedule. Effective on 30th June 2005, a 5% rate applies if a value of inherited property is up to 0.5 mln LTL, if the value is higher, 10%. No tax is applied to property that is inherited by spouses, close kin and for property with value up to 10,000 LTL. Some allowances or deductions may be made by municipalities.

Land taxes (*žemės mokestis*) are based on the assessed value of the land and paid by the land owner. The rate of land tax is 1.5% of the assessed value of land. The land tax calculation is based on land value, which is estimated according to land assessment methodology proven by the Government.²³ Generally, a land tax value is based on immovable property register data and it is calculated by the local State Tax Inspectorate. Some people are exempt from land tax liability, e.g. disabled, pensioners, and children. Some allowances or deductions may be made by municipalities. Since 1st January 2013 the rate of land tax ranges from 0.01% to 4% of the assessed value of land and is defined individually by each council of municipality²⁴.

Value Added Tax (*pridėtinės vertės mokestis*): Effective on 30th June 2005, the main standard rate of VAT was 18%. Since the 1st January, 2009 to 1st September 2009 the main standard rate of VAT increased to 19%, and from 1st September 2009 to 21%. From the beginning of 2010 the standard VAT rate remained 21%. 9% VAT rate applied to heating energy used for heating of the living dwellings, hot water and cold water used for preparing hot water, including heating energy used for the heating of water, for the living dwellings. 9% VAT rate also applied to printings (books and non-periodical publications).. 5% VAT rate applied to state-compensated medicine and medical assistance tools. 0% rate applied to export and transit of goods and related services. From the 1st January 2011 till the end of 2011 the 9% VAT rate was applied to hotel-type and other accommodation services foreseen by laws on tourism activities. Until 2011 9% VAT rate was applied to passenger transport by regular routes as determined by the Ministry of Transport and Communications or an institution authorized by it or by municipalities, as well as to transportation of passenger luggage in the aforementioned transport. Since 2013 reduced rate to passenger transport was reintroduced again. Since 2013 reduced 5% rate also applies to technical aids for disabled and its' maintenance.

Excise Duties (*akcizai*) are charged on alcohol and alcoholic beverages, beer, tobacco, fuel and electric power and electrical production.

Social Tax (*socialinis mokestis*) is a temporary tax, effective from 1st January 2006 and applied only for the years 2006 and 2007. This social tax was paid by the legal entities which were obliged to pay corporate income tax. The tax base was the same as for corporate income tax. The social tax rate for 2006 was 4%, while for 2007 it was 3%.

Immovable Property Tax (*nekilnojamo turto mokestis*): This tax is paid by natural and legal persons. 'Immovable property' means the premises, engineering and other structures registered in the Real Property Register. This tax is imposed on 1) the immovable property (or part) belonging to natural persons by the right of ownership and located in Lithuania, with the exception of the structures (premises) intended for dwelling purposes, gardens, garages, homesteads, greenhouses, farms, subsidiary farms, science, religion, and recreation, fish-farming structures as well as engineering structures, where they are not the immovable property used for economic or individual activities or have not been transferred, for an indefinite period

²³ Based on the following resolution "LR Vyriausybės 1993 m. rugpjūčio 3 d. nutarimas [Nr. 603](#) „Dėl žemės mokesčio“

²⁴ Based on the following law "Lietuvos Respublikos Žemės mokesčio įstatymo pakeitimo įstatymas". Žin., 2011, Nr. 163-7743.

http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=415667&p_query=&p_tr2=2

or for a period exceeding one month, for use to legal persons; 2) the immovable property belonging to legal persons by the right of ownership and located in Lithuania. Since 2007 the tax rate is 0.3-1% of average market value of the immovable property, depending on the municipality. No major changes were made in 2010-2011. New Immovable Property Tax on real estate was introduced since January 1, 2012. The tax base is market value of immovable property above 1 000 000 LTL. The tax rate is 1%²⁵. Since 1st January 2013 the tax rate is 0.3-3% of the taxable value of immovable property²⁶. The tax rate is determined by municipalities.

Other taxes

Other indirect taxes include Income Deductions according to Forest Law, Income Deductions according to Law on Road Maintenance and Development Programme Financing (until 2006), Sugar Sector Taxes, Lottery and Gambling Tax, Vehicle Tax, Environment Pollution Taxes, Tolls and International Trade and Transaction Taxes.

2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

2.1 Scope of simulation

Not all the taxes and benefits mentioned in the previous section are simulated in EUROMOD. Some of the taxes or benefits are beyond the scope of EUROMOD (i.e. indirect or business taxation) and are therefore excluded from further simulations or imputations into the EUROMOD underlying database. Their descriptions serve primarily as a tool for a better understanding of the overall tax-benefit structure in Lithuania. Some of the direct taxes and benefits are also not possible to simulate based on the available data. If feasible, though, they are included (as observed in the original data source) in the EUROMOD database either as individual or/and aggregate income sources.

Table 2.1 and Table 2.2 list the main Lithuanian tax-benefit instruments, as discussed in Section 1, and provide a brief explanation as to why the instrument is not (fully) simulated or in which format it is included in the EUROMOD database. Most of the benefits that are simulated in EUROMOD are family benefits that depend on the number of children and their age. Furthermore, simulations are possible for a number of contributory (social insurance based) benefits, such as maternity leave or benefits assigned to low income households. A number of benefits with entitlement rights dependent on contribution history (i.e. pensions, sickness benefit, disability benefits, etc) are not simulated due to the lack of data on previous employment history and salaries received, some event occurrence (i.e. disability or accident at work), or lack of information on previous partner entitlements (i.e. survival pensions).

Most of the direct income taxes and social insurance contributions are simulated (except some minor ones), as they are calculated as percentages of gross labour earnings, which are available in the EU-SILC database. Nevertheless, application of some income tax allowances (or estimation of some income taxation is not possible) or not accurate enough due to the lack of more detailed information on a person's disability degree, economic activity type or other

²⁵ Based on following law: "Lietuvos Respublikos Nekilnojamojo turto mokesčio įstatymo 2, 4, 6, 7, 11, 12, 14 straipsnių pakeitimo ir papildymo Įstatymas", 2011 m. gruodžio 21 d. Nr.XI-1828. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=415666

²⁶ Based on the following law "Lietuvos Respublikos Nekilnojamojo turto mokesčio įstatymo 6 straipsnio pakeitimo įstatymas". Žin., 2012, Nr. 82-4265. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=429549

specific socio-economic information that is not collected in the EU-SILC database. In such cases, basic tax allowance levels or other general income taxation rules are applied.

Table 2.1 Simulation of benefits in EUROMOD

Benefit	Variable name(s)	Treatment in EUROMOD					Main limitations/other remarks
		2009	2010	2011	2012	2013	
Birth grant	bchba_s	S	S	S	S	S	
Child benefit	bch00_s	S	S	S	S	S	
Benefit to a conscript's child	-	E	E	E	E	E	No recipients could be observed due to the very limited scope of the benefit.
Guardianship benefit	bchor	I	I	I	I	I	No data on guardianship (curatorship); also included in the variable bfa.
Grant for housing (settlement)	-	E	E	E	E	E	Not identified in the UDB
Pregnancy grant	bmaprnc_s	S	S	S	S	S	No data on contribution history
Maternity leave benefit	bmaprct_s	S	S	S	S	S	No data on contribution history
Paternity leave benefit	bpplt_s	S	S	S	S	S	No data on contribution history
Maternity (paternity) leave benefit	bmact_s	S	S	S	S	S	No data on contribution history
Social benefit	bsa00_s	PS	PS	PS	PS	PS	No data on assets
Compensations for heating of a dwelling, cold and hot water expenses, and sewage	bho	I	I	I	I	I	No data on expenditures available
Unemployment social insurance benefit	bunct_s	PS	PS	PS	PS	PS	No data on contribution history
Old-age pension	boa	IA	IA	IA	IA	IA	No data on contribution & wage history;
Early retirement (old-age) pension	byr	I	I	I	I	I	No data on contribution & wage history or application for early-retirement; also included within aggregate variable bun
Work incapacity pension	bdi/boa	IA	IA	IA	IA	IA	No data on disability occurrence; information included in variables bdi or boa (hereinafter referred to as bdi/boa), splitting by retirement age.
Invalidity pension	bdi/boa	-	-	-	-	-	No data on disability occurrence;

Benefit	Variable	Treatment in EUROMOD					
		IA	IA	IA	IA	IA	
Survivor's or orphan's pension	boa/bsu	IA	IA	IA	IA	IA	No data on the loss of family members; included in variables boa or bsu, based on recipient's retirement age.
Sickness benefit	bhl	IA	IA	IA	IA	IA	No data on sickness duration
Vocational rehabilitation allowance	bdi	IA	IA	IA	IA	IA	No data on event occurrence
Occupational disease allowance	bdi	IA	IA	IA	IA	IA	No data on event occurrence
Work incapacity grant	bdi/boa	IA	IA	IA	IA	IA	No data on incapacity occurrence
Work incapacity periodical compensation	bdi/boa	IA	IA	IA	IA	IA	No data on incapacity occurrence
State pensions of degree one or two	boa	IA	IA	IA	IA	IA	No data on occupational achievements
State pensions for victims	bdi	IA	IA	IA	IA	IA	No data on participation in recognized aggressions, political imprisonment, deportations, etc.
State pensions for officers and soldiers	boa	IA	IA	IA	IA	IA	No data on occupation history
State pensions for scientists	boa	IA	IA	IA	IA	IA	No data on academic career length
State pensions for judges	boa	IA	IA	IA	IA	IA	No data on detailed occupational segregation and history
Compensations for special working conditions	boa	IA	IA	IA	IA	IA	No data on hazardous jobs worked
State social assistance benefits/pensions	boa/bdi	IA	IA	IA	IA	IA	No information on relevant conditions, as disability occurrence, nursing at home, etc.
Loss of breadwinner's pension	bsu	IA	IA	IA	IA	IA	No data on previous rights to the benefit;
Retirement pension	boa	IA	IA	IA	IA	IA	No data on previous rights to the benefit
Educational stipends and other financial support for unemployed	bed	IA	IA	IA	IA	IA	No data on participation in non-formal education programmes;
Social stipends	bed	IA	IA	IA	IA	IA	No data on affiliation to different type of educational establishments
Promotional education stipends	bed	IA	IA	IA	IA	IA	No information on grades
Municipal support	bsals	I	I	I	I	I	No information on different benefit rules by municipalities; inclusive

Benefit	Variable	Treatment in EUROMOD					
							of NGO support.
Free meals to pupils	-	E	E	E	E	E	Value of the meal could only be based on the maximum subsidy amounts to food providers.
Free school's supplies prior to the beginning of a new school year	-	E	E	E	E	E	No rules for benefit distribution in 2005-2006. No information on families being at "social-risk or special conditions set by education institutions.
Compensation for drugs and medical devices	-	E	E	E	E	E	No information on consumption of drugs
Funeral Benefit	bsu	IA	IA	IA	IA	IA	No information on the loss of family members or benefit split among the relatives
Severance pay	yunsv	I	I	I	I	I	No information on circumstances upon termination of the job contract.

[a] Variable extension “_s” indicates variable that has been simulated. Other variables are taken/ imputed from the used micro-data.

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; “IA”: included in the micro-data in an aggregated variable but not simulated; “PS”: *partially simulated* as some of its relevant rules are not simulated; “S”: *simulated* although some minor or very specific rules may not be simulated.

Table 2.2 Simulation of taxes and social contributions in EUROMOD

Taxes and social contributions	Variable name(s)	Treatment in Euromod					Main limitations
		2009	2010	2011	2012	2013	
Personal Income Tax on wages	tin_s	S	S	S	S	S	Comment for 2009: main tax rate applied to more categories of income
Personal Income Tax (from authorship contracts, royalties)	tin_s	S	S	S	S	S	Comment for 2009: main tax rate apply on authorship, contracts, royalties
Personal Income Tax on rent	tin_s	S	S	S	S	S	Rent is a component of the other property related income Comment for 2009: main tax rate apply on rent
Personal Income Tax on income from individual activity	tin_s	S	S	S	S	S	Comment: for 2009 main tax rate apply on income from individual activity
Personal Income Tax (acquisition of business certificate)	-	E	E	E	E	E	No information on income gained from activities with business certificate
Corporate Income Tax	-	n.a.	n.a.	n.a.	n.a.	n.a.	Outside the scope of the model

Taxes and social	Variable	Treatment in Euromod					Main limitations
Social Tax	-	n.a.	n.a.	n.a.	n.a.	n.a.	Outside the scope of the model
Land Tax	-	E	E	E	E	E	Outside the scope of the model
Inheritance tax	-	E	E	E	E	E	No information available
Immovable property tax	-	E	E	E	E	E	Outside the scope of the model
VAT	-	n.a.	n.a.	n.a.	n.a.	n.a.	Outside the scope of the model
Income Deductions according to Forest Law	-	E	E	E	E	E	Outside the scope of the model
Income Deductions according to Law on Road Maintenance and Development Programme Financing	-	-	-	-	-	-	Outside the scope of the model
Excise	-	n.a.	n.a.	n.a.	n.a.	n.a.	Outside the scope of the model
Sugar Sector taxes	-	E	E	E	E	E	Outside the scope of the model
Lottery and Gambling tax	-	E	E	E	E	E	Outside the scope of the model
Vehicle Tax	-	E	E	E	E	E	Outside the scope of the model
Environment Pollution Taxes	-	E	E	E	E	E	Outside the scope of the model
Tolls	-	n.a.	n.a.	n.a.	n.a.	n.a.	Outside the scope of the model
International trade and transaction taxes	-	n.a.	n.a.	n.a.	n.a.	n.a.	Outside the scope of the model
Credited social contributions	ils_sicct	PS	PS	PS	PS	PS	Only some of the eligible groups identified.
Credited contributions for health insurance	-	E	E	E	S	S	Simulated since 2009. Before 2009 no information available on amounts to be credited
Employers social insurance contributions:	ils_sicer	S	S	S	S	S	
- pension social insurance	tscerpi_s	S	S	S	S	S	
- sickness and maternity social insurance	tscersi_s	S	S	S	S	S	
- unemployment social insurance	tscerui_s	S	S	S	S	S	
- health insurance	tscerhl_s	S	S	S	S	S	
- employment injuries and occupational diseases social insurance	tscerac_s	S	S	S	S	S	
-payments to the guarantee fund	tscersf_s	S	S	S	S	S	

Taxes and social	Variable	Treatment in Euromod					Main limitations
Employees social insurance contribution:	ils_sicee	S	S	S	S	S	
- pension social insurance	tsceepi_s	S	S	S	S	S	
- sickness and maternity social insurance	tsceesi_s	S	S	-	-	-	
- health insurance	tsceehl_s	-	-	S	S	S	
Self-employed social insurance contributions:	ils_sicse	S	S	S	S	S	
- for pensions	tscsepi_s	S	S	S	S	S	
- for compulsory health insurance	tscehl_s	S	S	S	S	S	No data on income received from authorship contracts. No data on land size.
- sickness and maternity social insurance	tscsesi_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.

In addition to changes in the level of taxes and benefits, as well as their related calculation parameters or income lists, the following are the main structural changes in the LT system (simulated policies) since 2009:

- **Structural changes between 2009 and 2010**

Reduction of the personal income tax rate from 15% to 5% for specific groups of people who carry out individual activities. Transition period finished for increased social insurance contributions for the self-employed. Social contribution base for self-employed persons engaged in individual activities and also for those who receive income from sports or authorship agreements reduced to 50% of the taxable income from individual activities (before social contributions). Low ceilings for unemployment social insurance benefit and other social benefits set. There were also structural cuts of some important non-simulated benefits (especially old-age pensions and sickness benefits). The former structural cuts are simulated in EUROMOD for 2010 and 2011 (see Annex II for details), while the latter are not adjusted for, besides of the basic updating.

- **Structural changes between 2010 and 2011**

Generosity of the maternity (paternity) leave benefit was reduced.

- **Structural changes between 2011 and 2012**

Maternity (paternity) leave benefit duration and its amount became optional. It may be paid 1 or 2 years by decision of beneficiaries. Several changes were introduced for Social benefit: equivalence scales for benefit amount, reduction of benefit amount for long term dependants on Social benefit and payment of Social benefit for former long-term unemployed during the beginning of new employment.

Because of financial crises contributory and non-contributory pensions were cut since January 1, 2010 (they were affected by the Provisional Law on Recalculation and Payment of Social

Benefits of the Republic of Lithuania which came into effect on January 1, 2010). Contributory pensions were restored since January 1, 2012. Non-contributory pensions will be restored since January 1, 2013.

New Immovable Property Tax on personal (natural persons') real estate above 1 000 000 LTL was introduced since January 1, 2012²⁷.

- *Structural changes between 2012 and 2013*

None

2.2 Order of simulation and interdependencies

- *Order of simulation in 2009-2013*

In 2009-2013 the order of simulation remains the same as in 2005-2009 besides of the following changes (see Table 2.3):

- Since 2009 self-employed social insurance contributions for pensions, sickness/maternity, health insurance (tscse_lt) are calculated after the personal income tax.
- Since 2009, child benefit has become means-tested and is no longer included in the incomes' list when defining eligibility to the social benefit. Hence, the child benefit policy is calculated after the social benefit since 2009.
- Employment adjustments' module (empl_lt) was introduced for 2009-2011 in order to account for labour market changes during the financial crisis in Lithuania. This policy is switched off in the baseline.
- Structural cuts in public pensions in 2010-2011 are simulated in EUROMOD (boa_lt policy). The cuts were implemented due to financial crisis, they were of progressive nature and had different impact on different groups of pensioners (see Annex II for details).

²⁷ Source: "Lietuvos Respublikos Nekilnojamojo turto mokesčio įstatymo 2, 4, 6, 7, 11, 12, 14 straipsnių pakeitimo ir papildymo Įstatymas", 2011 m. gruodžio 21 d. Nr.XI-1828. Vilnius. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=415666

Table 2.3 EUROMOD Spine: order of simulation, 2009-2013

	Grp/No	LT_2009	LT_2010	LT_2011	LT_2012	LT_2013	Comment
SetDefault_lt		on	on	on	on	on	DEF: DEFAULT VALUES FOR VARIABLES
uprate_lt		on	on	on	on	on	DEF: UPDATING FACTORS
ConstDef_lt		on	on	on	on	on	DEF: CONSTANTS
ILDef_lt		on	on	on	on	on	DEF: INCOME CONCEPTS
TUDef_lt		on	on	on	on	on	DEF: ASSESSMENT UNITS
random_lt		n/a	n/a	n/a	on	on	DEF: generate random number
yem_lt		off	off	off	off	off	SWITCH: Minimum wage
neg_lt		on	on	on	on	on	SWITCH: recode negative income to zero
bmaprct_lt		on	on	on	on	on	BEN: maternity leave benefit (motinystes pasalpa)
bmaprnc_lt		on	on	on	on	on	BEN: pregnancy grant (vienkartine ismoka nesciai moteriai)
bmact_lt		on	on	on	on	on	BEN: maternity (paternity) leave benefit (motinystes (tevystes) pasalpa)
bpact_lt		on	on	on	on	on	BEN: paternity leave benefit (tevystes pasalpa) - since 2007
bunct_lt		on	on	on	on	on	BEN: unemployment insurance benefit (nedarbo draudimo ismoka)
boa_lt		toggle	on	on	toggle	toggle	BEN: recalculation of public pensions in 2010-2011
tscsepi_lt		n/a	n/a	n/a	n/a	n/a	SIC: self-employed social insurance contributions - pension (socialinio draudimo imokos)
tin_lt		on	on	on	on	on	TAX: personal income tax (asmens pajamu mokestis)
tscsehl_lt		n/a	n/a	n/a	n/a	n/a	SIC: self-employed social insurance contributions - health (privalomojo sveikatos draudimo imokos)
tscser_lt		on	on	on	on	on	SIC: employer social insurance contributions (socialinio draudimo imokos)
tscee_lt		on	on	on	on	on	SIC: employee social insurance contributions (socialinio draudimo imokos)
bch00_lt		on	on	on	on	on	BEN: child allowance (ismoka vaikui)
bchba_lt		on	on	on	on	on	BEN: birth grant (vienkartine ismoka gimus vaikui)
bsa00_lt		on	on	on	on	on	BEN: social benefit (socialine pasalpa)
tsct_lt		on	on	on	on	on	SIC: credited social insurance contributions
tscse_lt		on	on	on	on	on	SIC: self-employed social insurance contributions (socialinio draudimo imokos) & Mandatory health contribution (PSD)
output_std_lt		on	on	on	on	on	DEF: STANDARD OUTPUT INDIVIDUAL LEVEL

2.3 Policy switches

There are two standard switches included into the spine (see above):

- **neg_lt**: switched ON by default
 - recodes negative income to zero; currently this policy only recodes negative self-employment income to zero, initial value stored in `i_yse0`
- **yem_lt**: switched OFF by default
 - if hourly wage is lower than hourly minimum wage recalculate in accordance to the minimum wage, leaving hours of work as recorded in the data; if ON overwrites `yem`.

2.4 Social benefits

2.4.1 Birth grant (*bchba_s*)

- *Brief description*

This benefit is a lump-sum cash benefit paid upon the birth of a child to one of the parents or a guardian.

- **Definitions**

The primary unit of analysis is family, which consists of partners and their own dependent children. Dependent children are persons aged under 18 or under 24 if in full-time education; they cannot be married, cohabiting with a partner nor parents themselves.

- **Eligibility conditions**

Based on the benefit rules, the benefit is paid to one of the parents or a guardian of a child born that year.

- **Income test**

No income test applied.

- **Benefit amount**

The benefit amounted to 8 MSL per eligible dependent child during the entire 2005-2008 (applicable on 30th June) period. Since the 1st January 2009 the benefit is equal to 11 MSL.

No changes to the rules until 30th June, 2013.

2.4.2 Child benefit (*bch00_s*)

- **Brief description**

It is a monthly cash benefit paid to a family raising one or more children up to the age of 18 or older if in full-time educational system.

- **Definitions**

The unit of analysis is the family as defined in section 2.3.1.

- **Eligibility conditions**

Children from large families (i.e. Type II) are eligible if aged up to 18 or until the age of 24 if enrolled in secondary, vocational, post-secondary or higher education – which is the same condition as used to define dependent children in the assessment unit. Enrolment in full-time secondary education is required for dependent children from the age of 18 or older (until the age of 21 in 2009) if raised in small families (one or two children), i.e. Type I.

Starting from the 1st January 2010 children living in the Type I families who are over 7 years are not eligible for child benefits.²⁸

- **Income test**

No income test applied before 2009. From the 1st March 2009 income test is applied for families which raise one or two children (Type I). Average monthly income per family member must be less than 3 times the level of SSI (where the income concept used is the same as for social benefits income test).

Starting from the 1st January 2010 income test was tightened: children below 2 years are eligible only if their parents or foster parents don't receive maternity or maternity (paternity) leave benefit or this benefit is below 1.5 SSI. For both Type I and Type II families with children aged 2 to 7 years and for Type II families with children aged 7 and over, monthly income per family

²⁸ According to "Lietuvos Respublikos socialinių išmokų perskaičiavimo ir mokėjimo laikinasis įstatymas. Žin., 2009, Nr. [152-6820](#)"

member can't exceed threshold of 1.5 SSI (temporary law valid since January 1, 2010 till December 31, 2011 and still effective in 2012). Since January 1st, 2012 income test was introduced for all groups irrespective of age of child: monthly income per family member can't exceed threshold of 1.5 SSI.

- **Benefit amount**

The benefit level is calculated in relation to MSL (BSA) and varies based on the number of children in the family and their age as presented in Table 2.4.

Table 2.4 Child benefit entitlements (x applicable MSL/BSA) on June 30, 2005 – 2013

Year/Family type	2005-2006		2007		2008		2009	
	Type I	Type II	Type I	Type II	Type I	Type II	Type I	Type II
Child until age 2	0.75	1,1	0.75	1.1	0.75	1.1	0.75	1.1
Child aged 3 to 6	0.4	0.4	0.4	0.4	0.4	0.4	0.4*	0.75
Child aged 7 to 8	-	0.4	0.4	0.4	0.4	0.4	0.4*	0.75
Child aged 9 to 17	-	0.4	-	0.4	0.4	0.4	0.4*	0.75
Child aged 18 to 23**	-	0.4	-	0.4	0.4	0.4	0.4**	0.75
Year/Family type	2010-2011		2012		2013			
	Type I	Type II	Type I	Type II	Type I	Type II		
Child aged below 2	0.75*	0.75*	0.75*	0.75*	0.75*	0.75*		
Child aged 2 to 6	0.4*	0.4*	0.4*	0.4*	0.4*	0.4*		
Child aged 7 to 8	-	0.4*	-	0.4*	-	0.4*		
Child aged 9 to 17	-	0.4*	-	0.4*	-	0.4*		
Child aged 18 to 23**	-	0.4*	-	0.4*	-	0.4*		

Notes: (a) Type I refers to children, raised in families with one or two children, Type II refers to children raised in families with three or more children; (b) Age boundaries are inclusive

* Means test applies since March 1, 2009 (temporary law valid since January 1, 2010 till December 31, 2011 and still effective in 2012 and 2013).

** For children raised in Type I family: in 2009 only if in full-time education until the age of 20 (inclusive); in 2010-2011 if enrolled in secondary, vocational, post-secondary or higher education up to the age of 23 (inclusive).

Source: Based on *Law of Benefits to Children and its relevant amendments & Temporary Law on Recalculation and Payment of Social Benefits*.

No changes to the rules until 30th June, 2013.

2.4.3 Pregnancy grant (*bmaprnc_s*)

- **Brief description**

This benefit is a lump-sum cash benefit paid to a pregnant woman upon the 28th week of the pregnancy.

- **Definitions**

In principle, the primary unit of analysis would be family as defined in section 2.3.1. However, for technical reasons we define a separate family unit, which consists of partners and their own dependent children who are less than 3 years old.

- **Eligibility conditions**

The benefit is paid to pregnant women who are not eligible to receive the maternity leave benefit. See more benefit details in Section 2.3.4.

- **Income test**

No income test applied.

- **Benefit amount**

The benefit is equal to 2 MSL. This level did not change since 2005 (applicable on 30th June).

No changes to the rules until 30th June, 2013.

EUROMOD notes

Instead of pregnant women, mothers with an own child aged 0 are considered.

2.4.4 Maternity leave benefit (bmaprct_s)

- **Brief description**

This benefit is a cash benefit paid to a pregnant woman on the basis of *the Law on Sickness and Maternity Social Insurance*. The maternity leave benefit is paid as a lump sum amount for the number of working days in the *applicable period (see below)*. If the applicable period stretches into a different calendar year, the benefit could be paid in two lump-sum amounts.

Applicable period:

The benefit is paid to women for a total of 126 calendar days, which covers the period before the child birth (70 days) and after delivery (56 days). In the case of complicated confinement or if more than one child was born, an additional 14 days are added to the total period.

- **Definitions**

The unit of analysis is the family as defined in section 2.3.3 .

- **Eligibility conditions**

The benefit is paid if women before the first day of maternity leave, had sickness and maternity social insurance record for no less than three months over the last 12 months or for no less than six months over the last 24 months. As of 30th June 2008, the benefit is also paid to a woman who is under 26 years and has no sufficient sickness and maternity social insurance record because she was engaged in full-time education (and a break after the studies and before becoming insured is less than three months). No changes effective on June 30, 2009.

Starting from the 1st July 2009 sickness and maternity social insurance record was extended to no less than 9 months over the last 24 months and starting from the 1st October 2009 – to no less than 12 months over the last 24 months, except of those who previously were in full-time secondary, professional or higher education (up to the age of 26) or in civil or military service and the start of the gap between the change of the status and the beginning of the insurance record was not more than 3 months.

- **Income test**

No income test applied.

- **Benefit amount**

The maternity benefit is equal to 100% of the recipient's average monthly reimbursable income AMRI (see chapter 1.4.1 for more details), and is calculated as:

$B = S * 100\% * D$, where:

B is maternity benefit; and $B \geq \text{min B}$ (minimum level)

S is a daily compensatory salary; $S \leq \text{max}$ (levels specified)

D is the number of working days in the applicable period;

The daily compensatory salary ("S") is calculated by dividing the beneficiary's monthly income (using the month, when the beneficiary has been granted a right to this entitlement) by the number of working days in that month.

"S" has maximum compensatory amounts specified, which are calculated in relation to the CYI. In 2005, S could not exceed 3.5 of applicable CYI. In 2006-2009 this level has been increased to 5 times CYI. Since the 1st July 2010 the upper limit was set to 4 times CYI for newly awarded benefits. Since 1st January 2012 the upper limit was set to 3.2 times CYI for newly awarded benefits and CYI was increased (Table 1.6). The used CYI level refers to different reference dates during the discussed period:

- *in 2005-2007* – the maximum level is defined in relation to the latest state approved CYI level.
- *since 2008* – the maximum level is defined in relation to the CYI that was applicable in the month of the entitlement right occurrence.

In 2005-2007, the minimum benefit B was equal to 25% of the current year's insured income CYI (see Table 1.6). In 2008 the threshold was lifted to 1/3 of the CYI. Since the 1st January 2010 – the minimum and maximum benefit levels are recalculated on the approval of a new CYI level.

Furthermore, as of 2008, the benefit B is multiplied by the number of born children. Previously, the number of born children did not influence the benefit size. Since July 1, 2011 the maternity benefit is no longer multiplied by the number of born children.

No other changes to the rules until 30th June, 2013.

EUROMOD notes

The payment for additional 14 days is currently not simulated (due to data constraints).

As social insurance contribution information is not available, all mothers with an own child aged 0 in EUROMOD are considered eligible if they have been in work for more than six months in the current year²⁹ (as suggested by observed patterns in the underlying data).

The AMRI is approximated in EUROMOD (thereby, also for other relevant family benefits) using either estimated hourly wage rate multiplied by work hours per month (i.e. 168 hours on average) or observed monthly earnings.

²⁹ Note that being on maternity leave is considered as in work in the underlying data source, i.e. EU-SILC.

2.4.5 Paternity leave benefit (*bplct_s*)

- **Brief description**

The benefit was introduced from 1st July 2006, and is granted on the basis of *the Law on Sickness and Maternity Social Insurance*. It could be claimed by a father who has a newborn child. The benefit is paid up to one month (from the child birth until the child reaches the age of one month).

- **Definitions**

The unit of analysis is the family as defined in section 2.3.3. Insured income definition is presented in section 1.4.1.

- **Eligibility conditions**

Before the first day of paternity leave, a father must have no less than seven months of sickness and maternity social insurance record over the last 24 months.

Since January 1, 2008 benefit is also paid to a father who is under 26 years and has no sufficient sickness and maternity social insurance record because of his engagement in full-time education (and a break after the studies and before becoming insured is less than three months).

Since the introduction of the law on July 1, 2006 the requirement of the father being married to a mother of the child has been in place. Since January 1, 2008 the marriage requirement has been dropped and replaced by a requirement to have a legal acknowledgement of the fatherhood of the child.³⁰

Starting from the 1st July 2009 sickness and maternity social insurance record was extended to no less than 9 months over the last 24 months and starting from the 1st October 2009 – to no less than 12 months over the last 24 months, except of those who previously were in full-time secondary, professional or higher education (up to the age of 26) or in civil or military service and the start of the gap between the change of the status and the beginning of the insurance record was not more than 3 months.

- **Income test**

No income test applied.

- **Benefit amount**

The amount of paternity benefit is 100% of the benefit recipient's AMRI (see chapter 1.4.1 for more details). The used AMRI cannot be higher than 5 times of CYI and since the 1st July 2010: 4 times CYI for newly awarded benefits. Since 1st January 2012 the upper limit was set to 3.2 times CYI for newly awarded benefits and CYI was increased (Table 1.6). The benefit cannot be lower than 1/3 of CYI per month. *Since the 1st January 2010* – the minimum and maximum benefit levels are recalculated on the approval of a new CYI level. The rules did not change during the course of 2008-2009 (as of on June 30).

Starting from the 1st January 2011, the paternity benefit is reduced proportionally to the amount of the income eligible for sickness and maternity social insurance contributions received during the paternity leave, except of the payments for copyright agreements if the job was performed before the start of the paternity leave.

³⁰ According to the following law: Lietuvos Respublikos Ligos ir motinystės socialinio draudimo įstatymo 3, 5, 6, 8, 10, 15, 16, 17, 18, 181, 183, 19, 20, 21 straipsnių pakeitimo ir papildymo įstatymas. 2007 m. Gruodžio 4 d. Nr. X-1338: http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=310952

No other changes to the rules until 30th June, 2013.

EUROMOD notes

As information on social insurance record is not available in EUROMOD, all fathers with an own child aged 0 are considered eligible. The requirement of having a legal acknowledgement of fatherhood (since 2008), cannot be simulated in the model.

2.4.6 Maternity (paternity) leave benefit (*bmact_s*)

- ***Brief description***

This benefit is a monthly benefit granted on the basis of *the Law on Sickness and Maternity Social Insurance* in order to support early child care at home. The benefit is paid to one of the parents (adoptive parents) or a guardian on the childcare leave after the end of maternity leave or paternity leave payment until the child reaches the age of 1 year (or 2 years as of 2008). If the mother did not receive maternity leave benefit, this benefit would be calculated as of the child birth day.

- ***Definitions***

The unit of analysis is the family as defined in section 2.3.3. Insured income definition is presented in section 1.4.1.

- ***Eligibility conditions***

Before 2008 the benefit was granted if a person, before the first day of childcare leave, had no less than 7 months over the last 24 months of sickness and maternity social insurance record.

As of 2008, the benefit is also paid to a woman who is under 26 years and has no sufficient sickness and maternity social insurance record, because she was engaged in full-time education (and a break after the studies and before becoming insured is less than three months).

Starting from the 1st July 2009 sickness and maternity social insurance record was extended to no less than 9 months over the last 24 months and starting from the 1st October 2009 – to no less than 12 months over the last 24 months, except of those who previously were in full-time secondary, professional or higher education (up to the age of 26) or in civil or military service and the gap between the change of the status and the beginning of the insurance record was not more than 3 months.

- ***Income test***

No income test applied.

- ***Benefit amount***

The amount of the child care benefit is paid as a percentage of the recipient's AMRI (see more details in chapter 1.4.1). The used AMRI cannot be higher than:

- In 2005: 3.5 times CYI (of the month in which the right to the benefit occurred)
- In 2006-2009: 5 times CYI.
- Since the 1st July 2010: 4 times CYI for newly awarded benefits.
Since the 1st January 2012: 3.2 times CYI for newly awarded benefits.

Since the 1st January 2010 – the minimum and maximum benefit levels are recalculated on the approval of a new CYI level.

As of 2008, the requirement with respect to other income receipt during the time when maternity (paternity) leave benefit is paid changed. If a person has any type of *insured income*, the originally calculated maternity (paternity) leave benefit is reduced by the amount of this income.

Since 1st January 2012 maximal Maternity (paternity) leave benefit duration and its amount became optional. It may be paid 1 or 2 years by decision of beneficiaries. Mother (father) can choose to take benefit only during the 1st year (compensation rate is 100%), or to take benefit during the two years period: compensation rate is 70% during the first year and compensation rate is 40% during the second year. It is allowed to work and to receive full amount of benefit during the second year.

The level and duration of benefit entitlement has changed during the period of 2005-2013 (See Table 2.5).

Table 2.5. The rate of maternity (paternity) benefit, 2005-2013 (as of 30th June)

	2005	2006	2007	2008	2009	2010	2011	2012-2013***
Compensation rate 1 st year, %	70	70	85/100	100	100	100	90**	100/70
Max. benefit duration the 1 st year, months*	12	12	12	12	12	12	12	12
Compensation rate 2 nd year, %	-	-	-	85	85	85	75**	0/40
Max. benefit duration the 2 nd year, months	-	-	-	12	12	12	12	0/12
Benefit size multiplied with # of births	No	No	No	Yes	Yes	Yes	Yes	Yes with ceilings****

Notes:* If a mother/father has received a maternity leave or paternity leave benefit, the payment duration is reduced by the time (56 days and 1 month respectively) for which the relevant benefit has been paid.

** For all the benefits (new and old) starting from the 1st July 2010.

*** Since the 1st July 2011 - the amount of the maternity (paternity) leave benefit depends on period of payment which can be chosen by mother (father):

if mother (father) chose to take leave for 12 months, compensation rate is 100%;

if mother (father) chose to take leave for 24 months, compensation rate for 1-12 months period is 70% and for 13-24 months period is 40%;

**** Benefit size multiplied with # of births but cannot exceed 100% of Compensation rate.

Source: Based on the *Law on Sickness and Maternity Social Insurance*

During the entire receipt period, this benefit also has a minimum amount specified: it cannot be less than one third of CYI per month. Some of the other relevant changes:

- 30th June 2007: if more than one child is born, the maternity (paternity) benefit increases from 85% to 100% of the benefit recipient's compensatory salary.
- 30th June 2008:
 - maternity (paternity) benefit is paid until the child reaches the age of 2.
 - if more than one child is born the maternity (paternity) benefit is increased according to number of children born (in case of twins the benefit is increased 2 times; triplets – 3 times, etc.)
 - if a woman already receives maternity (paternity) benefit and is entitled to a maternity leave benefit, she has a right to receive both benefits.

No other changes to the rules until 30th June, 2013.

EUROMOD notes

- As social insurance contribution information is not available, all mothers with an own child aged 1 or below (from 2008, aged 2 or below) are considered eligible if they have been in work for more than six months in the current year³¹ (as suggested by observed patterns in the underlying data).
- Simulations of opting for different options of maternity (paternity) benefit are built in accordance with administrative statistics: in 2012 14% of eligible mothers chose to receive their maternity (paternity) benefit for one year and 86% for two years. Mothers opting for either choice are selected randomly. Mothers with several children are randomly assigned to a single choice for all children. In 2013 only 9.6% chose to receive maternity (paternity) benefit for one year, while the rest 90.4% for two years.
- Among those who chose to receive benefit for one year more than 1/3 are men, however it constitutes only around 3.5 percent of all beneficiaries. Among those who had chosen to receive benefit for two years, only 4% of fathers took child care leave during the first year, meanwhile the share of men taking child care leave during the second year grew up to almost 20 percent. Benefit take-up decisions are not modelled. The recipient is always assumed to be the mother; father if there is no female partner in the household or mother not eligible.

2.4.7 Social benefit (*bsa00_s*)

- **Brief description**

This monthly benefit is granted to families or single persons in case of income maintenance need. Social assistance benefit is granted for three months. The application must be re-submitted upon benefit expiration, unless local authorities have granted the benefit for the period exceeding three months (i.e. if the composition and income of the family has not changed).

- **Definitions**

The unit of analysis is family, which consists of partners and their own dependent children. Dependent children are persons aged under 18 or under 24 if in full-time education or unemployed; they cannot be married, cohabiting with a partner nor parents themselves.

Single persons are persons aged 18 and above:

- who are not married and reside alone;
- who are married childless persons, but residing alone by the court's judgement;
- who are married persons residing alone, as their children are staying with their spouse by the court's judgement.

Family definition for the purpose of granting social assistance includes the following persons:

- spouses or cohabitating couples;
- their children and adopted children under 18 years of age;
- single persons (children) between the ages of 18 and 24 who are unemployed, unmarried and not cohabitating: if they are full-time pupils and students of general education schools and other institutions of formal education.

³¹ Note that being on maternity leave is considered as in work in the underlying data source, i.e. EU-SILC.

- ***Eligibility conditions***

All family members or single persons during the income calculation period must comply with at least one of the following major conditions (applicable during 2005-2012, unless specified otherwise).

During the income calculation period, persons over 18 years of age should (those in italic could not be simulated):

- be full-time pupils and students of general education schools and other institutions of formal education if under 24 years of age;
- be employed *for at least two thirds of the duration of working time or working part-time*
- be of the old-age retirement age (see section 1.4.4. on old-age pensions);
- receive pensions (except the state social insurance disability pension granted to a person with Group III disability) or social assistance benefits;
- be unemployed receiving unemployment social assistance benefit (effective until 01 01 2012);
- be the persons who have registered with the state territorial labour exchange for at least six months (effective until 01 01 2012), be the persons who have registered with the state territorial labour exchange without term requirement (effective since 01 01 2012);
- receive education grant during the period of studying or doing public works (effective until 01 01 2012);
- *be a person nursing (assistance, care) another family member in the manner prescribed by legal acts;*
- *be a person undergoing treatment in a in-patient health care institution for at least a month;*
- *be a woman who is pregnant and less than 70 calendar days are left before a baby is due (28 or more weeks of pregnancy);*
- be a mother or a father (a guardian or a curator) who raises at home a child under certain age and care conditions as prescribed in the same law:
 - if a family raises a child under three years old, who does not attend a pre-school educational establishment;
 - if a family raises three or more children under age of 14 and at least one of the children is under age 8 and does not attend a pre-school educational establishment or a school;
 - if a child under 8 years old does not attend a pre-school educational establishment due to medical recommendations or due to overcrowded schools;

In 2007-2012 two more qualifying conditions for a mother or a father (a guardian or a curator) who raises at home a child under certain age and care conditions have been added:

- if a family raises three or more children under age of 14 and at least one of the children is under age 8 and does not attend a pre-school educational establishment due to the family's countryside residence, which is farther than 3 km away from the closest pre-educational establishment;
 - a mother or a father, if their spouse is not able to take care of the children due to disability or other acknowledges reasons, raises a child under 14 years old (8 years old since 1 January, 2012) and works on a land plot, which is not smaller than 2 hectares (either owned or rented). (Note: this condition is not simulated)
2. Persons from 16 and up to 18 years of age should attend institutions of formal education; be disabled, registered with the state territorial labour exchange (i.e. unemployed) or *pregnant women*.
 3. Persons under 16: included unconditionally.

4. In 2012 extra benefit payment was introduced for former long term unemployed, i.e. person has registered with the state territorial labour exchange during at least last 12 months. The benefit is granted during the six months if person has started to work and earn monthly no more as two minimal wages.

The benefit is granted to families or single persons if they pass the following assets and income tests: 1) the value of *family's* or person's assets does not exceed the *ratio of state established property value* (RP) and if 2) the *average* family or person's *income* (IL) is lower than 1 SSI per each family member.

- ***Income test***

Assets' and incomes' test is applied

Assets' test:

Family's or person's actual assets (AS) must be lower than the *ratio of state established property value* (RP), which is calculated in the following way: $AS \leq RP = RE + RM$, where

AS is the actual value of a family's or person's assets. AS is established by calculating the value of the following family's or person's assets (effective from 30th June 2005-2013, unless specified otherwise):

- construction works, including construction works under construction;
- vehicles subject to registration;
- agricultural machinery subject to registration;
- land (including that occupied with forests and water bodies);
- livestock, poultry, animals, hives, if their total value exceeds LTL 4,000;
- stocks, bonds, bills of exchange, and other securities, shares, if their total value exceeds LTL 2,000;
- works of art, gems, jewellery; precious metals, when the value of a unit exceeds LTL 2,000;
- cash resources if their total value exceeds LTL 2,000;
- received (unpaid) loans, if their total value exceeds LTL 2,000 – as of 2007 onwards exception condition added: except of state loans for the students studying at the higher education institutions.
- money lent to other individuals (and unpaid), if their total value exceeds LTL 2,000;
- any other property, which has been acquired into the ownership during the last 12 months preceding the month from which cash social assistance begins to be granted, provided that the value of a unit (set) of such property exceeds LTL 2,000: this condition was abolished from 2007 onwards.
- As of 2007 onwards one more asset was added to the list: *state compensations for real property purchased by the State, restored savings and other restored resources.*

In order to evaluate AS, applicants for social assistance must declare their assets. Then the declared number of property is checked with the registry data.³² If the value of the declared property is extraordinarily low, officials have a right to establish property value using *average market value*, as approved by the Commission for the Assessment of Property Subject to Registration.

RE is the "ratio of real estate value" and is calculated as:

$$RE =$$

³² Based on Methodology of Asset Evaluation (*Turto vertinimo metodika*),

Notional size of residence (60m² for the 1st person + 15m² for each additional family member) x *average market price of the residence* (which is approved by the Commission for the Assessment of Property Subject to Registration on 1st February, 1st May, 1st August and 1st November of each year – see details in Table 2.8).

+

Notional size of land plot per family or person x *average market price of the land* (see details in).

The state requires application of the following notional sizes of land per family:

- residential purpose land: in cities – 6 Ares,³³ in towns and villages – 25 Ares;
- agricultural purpose land (if the plot does not exceed 1 hectare³⁴): in cities – 6 Ares, in towns and villages – 25 Ares;
- agricultural purpose land (if the plot exceeds 1 hectare): in cities – 6 Ares, in towns and villages – 3.5 hectares;
- other non-industrial purpose land: in cities – 6 Ares, in towns and villages – 3.5 hectares.
- if a person does not have a land - the value of the notional size of the land plot is based on 1 hectare of agricultural purpose land.

RM is the “ratio of value of movables”, which is calculated per family member:

- 45 SSI for the first person aged 18 or above;
- 30 SSI for each additional person aged 18 or above;
- 15 SSI for each person (child) under 18 years old.

- ***Income test:***

For the purpose of means testing, the average family or person’s income (IL) is calculated as: the average income of all family members during the period of three months prior to the month when the family (single resident) acquired the right to social benefit. All income should be taken after the deduction of withholding income tax and employee social insurance contributions. Incomes defined by the same social assistance law, namely compensations for housing utilities and social benefit itself, are not taken into account for means testing.

The following incomes are included in the means-test for the period of 2005-2012³⁵ unless otherwise specified (**those in italic could not be simulated**):

- work-related income and royalties (including non-cash payments) before the 1st July 2008. Since the 1st July 2008 work related incomes of those who study full-time (at secondary or vocational school) is not included into IL;
- all types of pension benefits (*except of nursing allowances*);
- dividends and interests;
- *income of an owner of an individual company, received from the taxable profit of such company*;
- alimony;
- education grants - excluded from the list as of 2007 onwards;

³³ 1 Are = 100 square meters

³⁴ 1 Hectare = 10000 sq. meters or 100 Ares

³⁵ Changes effective on the 30th June, 2009 indicated according to the following law: “Lietuvos Respublikos Piniginės socialinės paramos nepasiturinčioms šeimoms ir vieniems gyvenantiems asmenims įstatymo 15 ir 22 straipsnių pakeitimo įstatymas“. 2008.06.17 Nr. X-1611: http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=323463

- all income of a social nature, such a family benefits and other state transfers, *with the exception of compensations of transport costs for the handicapped and the disabled and compensations to diabetics and donors. As of 2007 onwards, the exception condition is narrowed down to 'the exception of compensations of transport costs for the handicapped and compensations for donors'. As of 1st July 2008, child benefits, social stipends and assistance money are not included into IL;*
- unemployment social insurance benefit, severance pay or compensation paid upon the termination of an employment contract or upon the dismissal of public servants;
- sickness, maternity, and maternity/paternity benefit and – from 2007 onwards – occupational rehabilitation.
- Child benefit (since 01 01 2012)
- compensation for property and non-pecuniary damage (including one time compensation for lost working capacity);
- *cash donations if their total amount exceeds the amount of 4*SSI.*
- *cash resources received as a gift;*
- *inherited cash resources;*
- *cash resources received abroad or from a foreign state;*
- state compensation for the property appropriated for public needs – excluded from this list as of 2007 onwards.
- income from property rent and – from 2007 onwards – income from property sale (unless it is included into assets).
- *lottery and other cash winnings, prizes;*
- income from individual activities, including the income received from engaging in the activities with a business certificate;
- income from agricultural activities (*except of income from gardens of members of gardeners' societies, the area of land plots of which does not exceed 6 Ares*); as of 2007 onwards, the exception condition is granted for land plots which do not exceed 1 hectare:
 - a) *in the absence of accounting documents, average monthly income should be calculated by applying the ratios of income from agricultural activities evaluated according to the state approved notional costs;*
 - b) *if there is no possibility for determining income according to these ratios, average monthly agricultural income should be calculated by applying a state approved income rate per hectare of agricultural land (see Table 2.6 for rates).*

- ***Benefit amount***

Social benefit per family or single person was calculated as: $90\% \times (\text{SSI} \times \text{number of people in family} - \text{IL})$, before 1st January 2012.

From 1st January 2012 equivalent scales for Social benefit were introduced. So, benefit amount now depends on number of people in family:

- for single person or first person in family Social benefit is calculated as the difference between income and $100\% \times \text{SSI}$;
- for second person in family - $80\% \times \text{SSI}$;
- for third and following person in family- $70\% \times \text{SSI}$.

Social benefit for former long term unemployed paid during the first six months of employment is calculated as 50% of social benefit paid before the employment (effective from 01 01 2012).

From 1st January 2012 benefit amount has to be reduced for single person able to work but not working or family of person able to work but not working and receiving benefit during the long period:

Benefit amount will be reduced:

- by 20% after 36 months of payment;
- by 30% after 48 months of payment;
- by 40% after 60 months of payment for families having children;
- after 60 months benefit payment has to be abolished for single person or family without children.

The calculated social benefit should be equal to at least 5 LTL in order to be paid.

- ***Social experiment in 5 municipalities since 01 01 2012***

All municipalities pay social assistance benefits to residents from targeted subsidies allocated to them from the national budget. However in 5 municipalities (Municipality of Akmenė, Panevėžys, Radviliškis, Raseiniai, Šilalė) Social benefit providing function is transferred to municipalities' discretion and this benefit is paid from their budgets. Thus, after the assessment of specific local conditions and circumstances these municipalities will have more power in granting social assistance benefit (for example, to pay additional social assistance benefit, to reduce the amount of social assistance benefit, etc.).

EUROMOD notes

The EU-SILC database does not contain information on assets. Therefore, most of the information on the assets listed above is not available in EUROMOD. However, the following imputations have been made:

- residential property value: based on the EU-SILC variables on housing characteristics, imputed useful floor space and external real estate market information for those who own the residence (either on mortgage or outright).
- land property value: based on the size of residential and agricultural land holding (note that this is, however, not available in the EU-SILC UDB version) and average market price (see Table 2.6).
- financial assets: based on the EU-SILC information on investment income and external information on the average yield of LT government bonds during the period of 2005.

Table 2.6 Average housing and land market prices

	2005	2006	2007	2008	2009**	2010	2011-2013
<i>Flats (LTL/1 sq. m)</i>							
Densely populated areas (cities: Vilnius, Kaunas, Klaipėda, Panevėžys, Šiauliai)	1,816.33	2,112.33	2,590.33	3,561.00	3,776.52	2,412.56	2,245.64
Thinly populated areas (other towns and villages)	546.56	612.25	703.04	1,087.98	1,249.55	814.31	639.56
<i>Houses (LTL/1 sq. m)</i>							
Densely populated areas (cities: Vilnius, Kaunas, Klaipėda, Panevėžys, Šiauliai)	350.33	1,623.67	1,759.33	2,014.67	2,119.08	1,690.95	1,619.81
Thinly populated areas (other towns and villages)	123.39	543.45	611.99	859.55	939.65	678.98	544.76
<i>Residential purpose land (LTL/1 are)</i>							
Densely populated areas (cities: Vilnius, Kaunas, Klaipėda, Panevėžys, Šiauliai)	8,072.5	15,400.00	24,062.5	29,720.0	42,015.3	29,176.7	24,722.3
Thinly populated areas (other towns and villages)	989.06	1,758.00	2,318.63	3,386.65	3,906.53	3,631.54	2,018.77
<i>Agricultural purpose land if up to 1 hectare (LTL/1 are)</i>							
Densely populated areas (cities: Vilnius, Kaunas, Klaipėda, Panevėžys, Šiauliai)*	2,615.0	5,128.75	7,903.75	10,398.8	13,803.9	13,319.6	11,679.6
Thinly populated areas (other towns and villages)	325.44	634.55	864.19	1,274.92	1,737.76	1,800.37	1,173.48
<i>Agricultural purpose land if more than 1 hectare (LTL/1 hectare)</i>							
Thinly populated areas (only villages)	8,633.26	25,483.43	33,976.4	41,217.4	44,936.9	13,553.9	10,376.9

* The rate is also applied if the land size is more than 1 hectare.

** Since 2009 the average prices for land and housing is set by the Register Center, therefore there were some changes in aggregation on the local level.

Source: Based on the Law “[Dėl vidutinių rinkos kainų nustatymo būstui ir žemės sklypams 2005 m. rugpjūčio 1 d. valstybės garantuojamai teisinei pagalbai ir piniginei socialinei paramai mažas pajamas gaunančioms šeimoms gauti](http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=440261)” No. 91-3422 (Valstybės žinios: 2005-07-28) and its relevant changes.
http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=440261

- The notional and actual value of the land could not be established in EUROMOD, as the EU-SILC UDB version does not contain owned land size information.
- Social experiment in 5 municipalities since 01 01 2012 is not simulated in EUROMOD.
- Benefit reduction for those able to work but not working is not simulated due to data limitation and lag in time until this rule effectively will be implemented.
- Social benefit for the former long-time unemployed during the first six months of employment is not simulated due to data constraints.

2.4.8 Unemployment social insurance benefit (*bunct_s*)

- *Brief description*

This monthly benefit is organized via compulsory insurance system and covers individuals receiving remuneration for work.

- **Definitions**

The unit of analysis is the individual. *Unemployed person* – unemployed, *working age* person:

- who does not study full-time,
- is registered with the local Labour Exchange Authority,
- does not receive an early retirement benefit and
- is ready to start working

- **Eligibility conditions**

Eligible people are the working age persons, who are defined as aged 16 up to the old age retirement limit. The required service record is at least 18 months during the last three years and a person must be actively looking for a job. The duration of benefit payment depends on the unemployment insurance history. The benefit is paid for:

- 6 months – if insurance record is less than 25 years;
- 7 months – if insurance record is 25-29 years;
- 8 months - if insurance record is 30-34 years;
- 9 months – if insurance record is 35 years or more.

The duration of the payment is extended:

- By two months - if on the last unemployment payment day, a person has no more than 5 years until the old-age retirement age, and if a person does not receive an early retirement pension.
- By actual number of sickness days (max one month) – if a person gets sick during the time of unemployment benefit payment.
- By the maternity leave period (based on the rules of maternity benefit) – if a woman gets entitlement right to maternity benefit when the unemployment benefit is paid.

- **Income test**

No income test applied.

- **Benefit amount**

The benefit amount comprises fixed and variable components:

$U = F + V$, where

U – monthly unemployment benefit. As of 2008, the ceiling for the full unemployment benefit is introduced: $U \leq 0.7 \times CYI$. This ceiling requirement was not in place on June 30, 2005-2007. The ceiling is applicable during the entire period of benefit payment. With the adoption of the Temporary Law on Recalculation and Payment of Social Benefits starting from the 1st January 2010 the monthly benefits was capped at LTL 650 for the entire period of benefit payment.

F – fixed benefit component, which is equal to 1 SSI (see Table 1.5);

V – variable benefit component, which is equal to 40% of the former insured income. The insured income is calculated as the average CYI (see Table 1.6) indexed wage of the previous 36 months before registering as unemployed. The indexation is done in the following way:

$$\frac{\sum_{i=1}^{36} CYI_i}{36 \times CYI_u}$$

where: i - indicates the applicable CYI of each month during the 36 months period before registering as unemployed; u - indicates the CYI amount applicable in a month, when the unemployment benefit is to be paid.

The variable component cannot be larger than: $V \leq (0.7 * CYI - 1 * SSI)$. This ceiling requirement has been effective on June 30, 2005-2007, but abolished as of 2008.

The calculated unemployment benefit is paid proportionally to benefit payment duration:

- During the first three months – U is paid (full benefit);
- The remaining unemployment duration period – $F + 0.5 * V$ (fixed component plus 50% of the variable component) is paid.

The unemployment benefit cannot be paid together with the old-age pension (as well as an early retirement pension). The unemployment benefit is reduced by the amount of other pensions, in case a person has a right to receive a few other social insurance benefits at the same time: state social insurance pensions (except survivor and orphan pension), compensation for special working conditions (this income was accounted for during 2005-2007, and excluded as of 2008), and work incapacity pensions due to occupational injuries.

No changes effective on June 30, 2009 applied. With the adoption of the Temporary Law on Recalculation and Payment of Social Benefits starting from January 1, 2010 the monthly benefits was capped at LTL 650 for the entire period of the benefit payment.

EUROMOD notes

Effectively, this benefit is only partly simulated using the information about actual receipt. But rather than simply using the observed receipt as part of the eligibility criteria, all eligibility rules in full detail are covered. However, as not all required information (e.g. work history) is available several assumptions are made, among else considering some rules automatically fulfilled for those in receipt. This approach is chosen so that the benefit can be also modelled for those currently employed if needed (e.g. to simulate their entitlement if they become unemployed, for replacement rates calculations).

Unemployment duration ($lunmy_s$) is set equal to the maximum of observed unemployment duration ($lunmy$) and observed benefit receipt ($bunmy$). If modelling unemployment benefit for those currently employed, unemployment duration is set equal to the reported number of months in employment in the current year ($liwmy$), once contribution history (see the next step) is modelled. It is effectively also assumed that unemployment spells start in the reference year.

Among eligibility conditions, the requirement to actively looking for a job is not applied in EUROMOD as it is enforced very loosely in practice.

Modelled contribution history is based on the reported number of months in employment ($liwmy$), controlling for the total number of months in work ($liwwh$).

- For those currently employed ($ils_earns \neq 0$ & $lunmy_s = 0$ & $bunct = 0$), this is used.
- For those currently unemployed ($lunmy_s > 0$) and in receipt ($bunct > 0$), this is set at least equal to the minimum qualifying period.
- For those currently unemployed ($lunmy_s > 0$) and not in receipt ($bunct = 0$), this is set to zero.

At this point, working age people who are unemployed ($lunmy_s > 0$), have sufficient contribution history, are not in education and not in receipt of early retirement benefit are considered eligible. It is assumed that all of them are involuntary unemployed and capable and

available for work (there is a variable in the SILC data identifying the latter but only filled in for those currently unemployed).

Benefit duration (*bunmy_s*) is calculated according to the rules above, using modelled contribution history, while also controlling for the unemployment duration (*lunmy_s*). Extended duration due to sickness or maternity leave is ignored. For currently employed, a further cap is imposed corresponding roughly to the average duration observed in administrative sources (and national SILC data).

Benefit entitlement is calculated based on previous earnings and benefit duration, subject to the lower and upper thresholds. For those currently employed, current earnings are used. For those currently unemployed and in receipt, previous earnings are used which have been imputed by reversing unemployment insurance benefit rules. For those currently unemployed and not in receipt, imputed wage is used. Finally, benefit amount is adjusted with the number of months in receipt (*bunmy_s*).

2.5 Social contributions

Social insurance contributions (*socialinio draudimo įmokos*) to State Social Insurance Fund (*Socialinio draudimo fondas, SoDra*) are compulsorily paid by all employers and employees of private and public sectors as well as main categories of self-employed people.

Contributions are flat rates without ceilings, but they differ for employees and self-employed. Furthermore, contribution rates vary considerably among different categories of self-employed people (see below for more details). Social insurance contributions are paid for pension, health care, sickness and maternity, employment injuries, occupational diseases and unemployment insurances. Conditions regarding contributions made in the past determine eligibility and amount of contributory benefits.

All social contributions are calculated on the individual tax unit basis.

2.5.1 Employee social insurance contributions (*ils_sicee*)

As of 30th June 2005-2008, all *employees* of private and public sector paid 3% of gross wages and salaries as social insurance contributions. Out of 3% paid goes to:

- 2.5% to pension social insurance
- 0.5% to sickness and maternity social insurance

As of 30 June 2009, all *employees* of private and public sector paid a total of 9% of gross wages and salaries as social insurance contributions (these rates remained unchanged for 2010 and 2012):

- 3% to pension social insurance
- 6% to compulsory health insurance.³⁶

2.5.2 Employer social insurance contributions (*ils_sicer*)

As of 30th June 2005-2013 all *employers* of private and public sector pay on behalf of their employees 31% of gross wages and salaries. 31% is split into five components, as indicated in Table 2.8.

³⁶ Employee 6% contributions to the compulsory health insurance is also mentioned in the section 2.4.6.

Additionally, 0.2% of gross salary is paid by employers to the Guarantee Fund (*įmokos į garantinį fondą*) until 2008.³⁷ Since the 1st July 2008, the rate of payments to the Guarantee Fund is 0.1%. It remained unchanged in 2010 and 2011. Since 1st January 2012 the rate of payments to the Guarantee Fund was increased up to 0.2%³⁸

Table 2.7 Employers' social insurance contributions (% of gross salary)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Pension social insurance	23.5	23.6	23.7	23.85	23.3	23.3	23.3	23.3	23.3
2. Sickness and maternity social insurance	2.8	2.8	2.8	2.9	3.4	3.4	3.4	3.4	3.4
3. Unemployment social insurance	1.4	1.3	1.2	0.95	1.0	1.1	1.1	1.1	1.1
4. Health insurance*	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
5. Employment injuries and occupational diseases social insurance**	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Total	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
6. Contributions to the guarantee fund	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2

Notes: *It was only minor part of Health Insurance Fund revenue in 2005-2008. Major part of Health Insurance Fund revenues came from personal income tax until 2009, when compulsory health insurance contributions were introduced and increased to 9% (3% employer's/ insurer's part and 6% employee's/ insured person's part).

** Main rate. Other rates may apply ranging from 0.18% to 1% according to the group to which the insurer belongs.

2.5.3 Credited social contributions (*ils_sicct*)

Credited social contributions – social insurance contributions paid by the government on behalf of certain individual groups (for all or particular types of insurance). Credited social insurance contributions include unemployment, pension and/or health social insurance contributions.

The contribution base for credited unemployment and pension social insurance contributions is 1 MMS. The government pays contribution at the same rates as they are set for employers. Most importantly, such contributions are paid monthly for the following persons:

- If a mother or father (stepmother, stepfather) or guardian (curator) taking care of a child under age 3 has no taxable income, he/she is insured for basic and supplementary parts of pension and for unemployment social insurance. Only one of the parents can be insured.
- Priests of accepted confessions and monks working in monasteries are compulsorily insured for basic social insurance pension.
- One of the pre-pension age parents (stepparents) or guardian (curator) taking care after disabled has no taxable income, he/she is insured for basic and supplementary pension parts and for the unemployment social insurance.
- Conscripts are insured for all types of social insurance.
- Vocational, tertiary school students and individuals who are directed by territorial job center for vocational training are insured for employment injuries and occupational diseases social insurance for training period.
- Individuals in social or psychological rehabilitation institutions who get a salary are insured for employment injuries and occupational diseases social insurance during labour hours.

³⁷ Resources from the Guarantee Fund are allocated to current and past employees of bankrupted enterprises, which are indebted to employees.

³⁸ Valstybinė mokesčių inspekcija:

http://mic.vmi.lt/documentpublicone.do?&id=1000122600&tree_id=1000007371

- Prisoners who get salary are insured for employment injuries and occupational diseases social insurance during labour hours.
- Since 1st January 2011 authors of arts not receiving income are insured for basic and supplementary pension parts and for the sickness and maternity benefits.

Contribution rates for credited unemployment and pension social insurance contributions in 2005-2013 are indicated in the Table 2.8.

Table 2.8 Contributions for pension social insurance (employer's part) and unemployment insurance, 2005-2013 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Contributions for pension social insurance (employer's part)	23.5	23.6	23.7	23.85	23.3	23.3	23.3	23.3	23.3
Unemployment insurance	1.4	1.3	1.2	0.95	1	1.1	1.1	1.1	1.1

The contributions for credited health social insurance contributions are flat rate and approved annually. It is calculated as a percentage of the two-year previous average monthly wage for four quarters (32% in 2009, 33% in 2010, 34% in 2011, 35% in 2012, 36% in 2013, 37% in 2014)³⁹. Annual amounts of health social insurance contributions per person were as follows: LTL 605.27 per annum (LTL 50.44 per month) in 2009; LTL 744.74 per annum (LTL 62.06 per month) in 2010; LTL 733,23 per annum (LTL 61,10 per month) in 2011; LTL 725,4 per annum (LTL 60.45 per month) in 2012; LTL 762,3 per annum (LTL 63.53 per month) in 2013⁴⁰.

Groups of persons who are insured for compulsory health insurance by the state:

1. Persons who receive any kind of pensions or assistance benefits/ compensations;
2. Officially unemployed persons (those unemployed who are registered with the local Labour Exchange and are willing and able to work);
3. Unemployed persons of the working age who have compulsory contributions history for the state social old-age pension;
4. Women on maternity leave and unemployed pregnant women 70 days before childbirth and 56 days after childbirth;
5. One of (foster) parents looking for a child up to 8 years old and one of (foster) parents looking for two or more children;
6. Persons up to 18 years old;
7. Full-time students and pupils of Lithuanian secondary, vocational schools, colleges, universities and those who permanently live in Lithuania and study full-time in the EU high schools;
8. Persons who receive social benefits;
9. One of (foster) parents or guardians who nurse at home a person with disability up to 24 years old (with some exceptions up to 26 years old) or a person who requires permanent nursing;
10. Persons who have disability of any level;
11. Persons infected with communicable diseases that are dangerous for society and included into a special list;
12. Participants of the resistance struggles;
13. Persons who helped to liquidate the outcomes of the Chernobyl accident;
14. Ex-prisoners of the ghetto and fascist's prisons;

³⁹ Source: "Lietuvos Respublikos sveikatos draudimo įstatymo 16 straipsnio pakeitimo įstatymas. 2011 12 08" http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=413636

⁴⁰ Source: "Lietuvos respublikos 2012 metų valstybės biudžeto ir savivaldybių biudžetų finansinių rodiklių patvirtinimo įstatymas" 2011 m. gruodžio 20 d. Nr. XI-1823). http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=440373&p_query=&p_tr2=2

15. Priests and monks of the traditional religious communities and students of the priests' academy;
16. Persons who participated in the Afghanistan war;
17. Unaccompanied underage foreign citizens;
18. Foreign citizens who are provided with additional and temporary shelter in Lithuania;
19. Unemployed spouse of an acting President of Lithuania who has no insured income.
20. Since 1st January 2012 authors of arts not receiving income.

EUROMOD notes:

Pension and unemployment social insurance contributions are simulated in EUROMOD only for mothers or fathers (stepmothers, stepfathers) or guardians (curators) with no taxable income taking care of a child under age 3 with the following assumptions:

- The recipient of this contribution is the parent, who does not have taxable income. If neither parent has, then the recipient is the mother.
- A person should have no taxable income and should live in a family tax unit with a child under age 3.

Credited health social insurance contributions are simulated in EUROMOD for groups 1, 2, 4-8 and 10, which make up the majority of eligible persons. Compulsory health insurance contributions are not simulated for other groups due to lack of information on their status.

2.5.4 Self-employed social contributions (*ils_sicse*)

a) Effective before the 1st January 2009:

Self-employed persons, with the exception of the persons engaged in individual activities under business certificates, paid social insurance contributions for basic and additional pension part. The contribution level depends on income:

- If their gross annual self-employment income was less than 12 minimum monthly salary (MMS), they contributed 50% of the state defined basic monthly pension (PB)⁴¹ for basic pension social insurance for each month in self-employment:
- If their gross annual self-employment income was equal to or exceeds the amount of 12 MMS, they contributed 50% of PB plus 15% of their declared gross (self-employment) income for additional pension part. Declared income cannot be lower than 1 MMS for each month in self-employment.

Self-employed persons engaged in individual activities under business certificates didn't pay social insurance contributions for pensions.

Table 2.9 shows MMS and BP levels and state defined annual amounts of contributions for social insurance applicable to self-employed people, which were effective on 30th June 2005-2013. State defined annual contribution amounts were often used in practice in order to reduce ambiguities due to accrued changes in applicable MMS or PB amounts.

Table 2.9 Monthly MMS, MHW, PB levels and amounts of annual contributions effective on June 30, 2005-2013, LTL

⁴¹ This amount has already been defined in Table 8, and used for calculation of social benefits, however, we include this information again for the reader's convenience.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Minimum monthly salary (MMS)	500	550	600	800	800	800	800	800	1000
Average MMS that year*	525	575	650	800	800	800	800	800	1000
Lower tariff MMS**	430	430	600	800	800	800	800	800	1000
Minimum hourly wage (MHW)	2.95	3.35	3.66	4.85	4.85	4.85	4.85	4.85	6.06
Lower tariff MHS**	2.55	2.62	3.66	4.85	4.85	4.85	4.85	4.85	6.06
Basic monthly pension (PB)	172	200	266	316	360	360	360	360	360
Average monthly PB that year*	186	215	248	338	360	360	360	360	360
Annual contributions for basic pension	1116	1290	1578	2006	2160	2160	2160	2160	2160
Minimum annual contributions for additional part of pension	945	1035	1170	1440	1440	1440	1440	1440	1800

Notes: *Almost all changes in minimum monthly salary and basic monthly pension were taking place in the middle of the year, that is, 1st July (except of the latest two increases, which were made on 1st January).

** During the course of 2005-2006 MMS and MHW had a double tariff applied for different workforce categories. Lower tariff was applied for the calculation of the salaries of the civil servants, judges, politicians, military servants and some other state employee categories. The other (higher) MMS and MHW level has been applied for the rest of the working force. The differentiation in between these two workforce groups has been abandoned since 1st January 2007.

Sources: Based on the Law of State Social Insurance Pensions LRG Decision "Dėl Valstybinės Socialinio Draudimo Bazinės Pensijos Didinimo ir Einamųjų Metų Draudžiamųjų Pajamų Patvirtinimo", 2004 March 24, No. 235, and its relevant amendments and changes; and „Lietuvos Respublikos Vyriausybės nutarimas "Dėl minimaliojo darbo užmokesčio didinimo", 2005 April 4, No. 361, its relevant amendments and changes. Information available at: <http://www.sodra.lt/index.php?cid=284> and <http://www.socialiniszemelapis.lt/index.php?-1492246947> ("Baziniai socialiniai rodikliai")

Compulsory health insurance contributions for the self-employed before 2009:

Self-employed persons, including those receiving income from authorship contracts, but excluding farmers and personal farm users had to pay contributions equal to 30% of income tax due on self-employment income. Annual health insurance contributions cannot be smaller than certain amount (see Table 2.13).⁴² Every month farmers and other users of personal farms pay health insurance contributions of different values:

- 1) Farmers and land users (having 3 or more hectare of landed property) pay 3.5% of minimal monthly salary MMS.
- 2) Personal farm users (having up to 3 ha of landed property) pay 1.5% of MMS for themselves and other adult family members working in a farm.

Employees did not have to pay health insurance contributions as they were included in employer paid social insurance contributions on behalf of the employees.

Other people not mentioned before (e.g. housewives) could voluntary pay 2% of the national average monthly salary as a monthly contribution.

b) Effective after the 1st January 2009:

From 2009 (and as of the 30th June of 2010) *self-employed* persons, with the exception of the persons engaged in individual activities under business certificates, have to pay social insurance contributions for the basic and additional pension part (26.3%) as well as sickness and maternity social insurance (2.2% insured only to receive maternity leave benefit, paternity leave benefit and maternity (paternity) benefit).⁴³ Since 2010 the owners of individual enterprises and the real members of agricultural communities were not subject to sickness and maternity social

⁴² LR Sveikatos draudimo įstatymas, 2003

⁴³ Lietuvos Respublikos Valstybinio socialinio draudimo įstatymo 2, 4, 6, 7, 8, 9 straipsnių pakeitimo ir papildymo įstatymas. Žin., 2009, Nr. 25-972

insurance contributions, contribution for pension insurance remained unchanged (26.3%). The contribution base for these groups of self-employed is taxable income of the self-employed persons after deduction of income taxes.

A reduced contribution's rate of 10% in total applied for *self-employed* persons with exception of persons engaged in individual activities under business certificates during the transitional year 2009 (full rate applies in 2010 and 2011).⁴⁴ Rates for farmers and their partners were even lower, i.e. 8% in 2009 (16% rate applied in 2010, full rate from 2011).⁴⁵ No minimum liability applies (as of June 30, 2010 minimum liability for farmers and their partners applies – the minimum social contribution base being 12 MMS per year). Maximum annual base for contributions was capped at 4*CYI per month or 48*CYI per year in 2009-2013 (12*CYI per year in 2010-2011 for some groups of farmers and their partners).

Since 2009 social insurance contributions also have to be paid on income from sports, performing or authorship/copyright agreements with lower social insurance contribution rates set for the transitional period (the year 2009).

As of June 30, 2010 social contribution base for self-employed persons engaged in individual activities and also for those who receive income from sports or authorship agreements is equal to 50% of the taxable income from individual activities (before personal income tax).

Self-employed persons engaged in individual activities under business certificates compulsory pay social insurance contributions for the basic pension part. The contribution is equal to 50% of the state basic pension (BP equalled to 360 LTL in 2009-2013).

Compulsory health insurance contributions for the self-employed since 2009:

Since 2009 the compulsory health insurance contributions were set to 9% rate of the taxable income, gross wage or the MMS corresponding to the group the insured person belongs to. The annual compulsory contribution cannot be less than 9% of 12 times of MMS.

Since 2009 self-employed persons and farmers have to pay compulsory health contributions 9% of their taxable income⁴⁶. The members of the farmer's cooperatives and individual business owners have to contribute 9% of the received taxable profit. As of June 30, 2010 contribution base for self-employed persons engaged in individual activities and also for those who receive income from sports or authorship agreements is equal to 50% of the taxable income from individual activities (before personal income tax). The maximum annual base for compulsory health insurance contribution paid by the self-employed working in the agricultural sphere is capped at 12 times of CYI, in other spheres – 48 CYI. Those working with business certificates have to contribute at the rate of 9% of the MMS per month.

⁴⁴ *Reduces rate of contributions is split proportionally between pensions and sickness and maternity social insurance, e.g. 10% of contributions for the self-employed are split to 9,23 % to pensions and 0,77 % to sickness and maternity social insurance.*

⁴⁵ *Lietuvos Respublikos Valstybinio socialinio draudimo fondo biudžeto 2009 metų rodiklių patvirtinimo įstatymas. Žin., 2008, Nr.149-5998*

⁴⁶ According to the following law: „Lietuvos respublikos sveikatos draudimo įstatymo 6, 8, 17, 18 ir 19 straipsnių pakeitimo įstatymas“. 2009.02.19 Nr. Xi-183:

http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=338330

Table 2.10 Minimum annual contributions for the compulsory health insurance paid by self-employed, effective on June 30, 2005-2013, LTL

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Annual contributions	264.2	304.4	353.2	428.1	9%*12*	9%*12*	9%*12*	9%*12*	9%*12*
					MMS	MMS	MMS	MMS	MMS

Source: “LR 2005 (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013) metų valstybės biudžeto ir savivaldybių biudžetų finansinių rodiklių patvirtinimo įstatymas“

EUROMOD notes

Self-employment in the model is determined by the person having self-employment income.

Before 2009:

- For pension contributions, it is assumed that the proportion of those declaring income is relatively small, and that most of the self-employed would opt only for compulsory contribution part (50% * PB).
- For health contributions, it is assumed that all farmers have more than 3 ha of land and, thereby, pay 3.5% of MMS for every month in self-employment, as land size information is not available in the underlying input dataset. This assumption is based on the “Farm Structure Survey” research (Statistics Lithuania, 2008), which states that the proportion of farm users having up to 3 ha of landed property is around 30 % compared to those 70 % having more the 3 ha.
- The 2% payment is excluded from the model as it was voluntary insurance.

Since 2009:

- Social insurance contributions paid on income from sports, performing or authorship/copyright agreements are too specific to be simulated in EUROMOD.

2.5.5 Compulsory health insurance contributions for those not otherwise insured (*thl_s*)

Since 2009 the compulsory health insurance contributions were set to 9% rate of the taxable income, gross wage or the MMS depending on the group the insured person belongs to. Persons who are not otherwise insured for health social insurance (see Section 2.4.3 for details on credited health insurance contributions), including those who do not receive any taxable income, pay a compulsory health insurance contribution of 9% of the MMS per month since 2009.

2.6 Minimum wage

- *Brief description*

Minimum wage is usually changed as of 1st July. However the latest change was introduced from the 1st of January, 2013.

- *Definitions and eligibility conditions*

The unit of analysis is individual. If the actual wage is less than minimum wage then wage is replaced with minimum hourly wage times actual working hours.

- *Amount*

It is either defined in monthly or hourly terms.

EUROMOD notes

Monthly income from employment (taking into account the number of months in work) is set equal to minimum wage (proportional to hours worked) if the income from employment is less than minimum wage, but positive, and if working hours are less than or equal to 40 hours per week. We do not apply the minimum wage correction when a person earns more than a monthly minimum wage, but its hourly wage is still less than a minimum wage.

By default the simulation of minimum wage is set off, i.e. not part of the baseline.

2.7 Personal income tax (*tin_s*)

The main tax simulated for Lithuanian tax-benefit system is personal income tax.

2.7.1 Tax unit

Personal Income Tax (*asmens pajamų mokestis*): Personal income tax (PIT) system in Lithuania is an individual system. Generally, tax unit is an individual who has received income. Tax allowances for parents (see section 2.6.3) are divided equally into two parts. In case of a single mother or father, the applicable tax allowance is applied fully for the parent receiving income and living with children.

Some additional tax allowances are based on a family tax unit. This tax unit consist of parents and own dependent children, who are under age 18 or if older, in secondary education. The dependent child definition also covers marital status and parenthood conditions, as discussed for social benefits too.

2.7.2 Exemptions

Following Verbist (2004), we define exemptions as “income components (that) are part of pre-tax income, but do not have to be declared to the tax authorities, and thus are not included in the concept of taxable income (e.g. child benefits in most countries)”.

The list of tax-exempt incomes includes more than 50 categories, most importantly, all state social assistance or social insurance benefits, paid from state and municipal budgets or *Social Insurance Fund*, except sickness, maternity leave, paternity leave and maternity (paternity) leave benefits, are not subject to personal income taxation.

A number of other non-taxable income types exist. These include charity, scholarships, interest from deposits, loans, compensations, lottery winnings, prizes of sports competitions, pension annuities received from life insurance companies, inherited income, alimonies, proceeds from the sale of agricultural produce, which is produced, as well as produced and processed on the land owned and some other types of incomes.

2.7.3 Tax allowances

We define tax allowances as any amount subtracted from pre-tax income (including social insurance contributions). Differently from Verbist (2004) there is no distinction between those that are fixed amounts (tax allowances) and those whose level is a function of pre-tax income (deductions).

Applicable before 1st January 2009:

The basic general allowance was 290 LTL per month in 2005 and 2006. Effective from 30th June 2007 and 2008 it was 320 LTL per month. The allowance is higher for certain population groups.

Table 2.11 Personal income tax allowances (LTL per month), as of 30th June 2005-2008

Allowances	2005	2006	2007	2008
Basic allowance (highest applicable)				
General	290	290	320	320
For the disabled of group I	430	430	475	475
For the disabled of group II	380	380	420	420
For parents raising three or more children (adopted children) under the age of 18 or older, if in full-time secondary education;	430	430	475	475
• allowance increases for the fourth and each subsequent child by	46	46	50	50
For single parents (adoptive parents) having children under age 18 and older if in full-time secondary education;	335	335	370	370
• allowance increases for every subsequent child by	53	53	60	60
For employees of agricultural activity subjects, when the subject's income from actual agricultural production per year is not less than 50% of total revenue; For employees of farmers who have registered their farm	330	330	365	365
Additional allowance: for parents (adoptive parents) having one or two children under age 18 or older if in full-time secondary education in addition to the basic allowance, additional allowance is applied per eligible child *	29	29	32	32

*Additional allowance is applied by dividing the amount equally between parents (adoptive parents) if both of them have taxable income.

Note: All allowances are defined on the individual level. If a person meets more than one of the criteria as indicated in the table, the highest amount is applied.

Basic and additional allowances are applied monthly and are taken into account for withholding tax. However, there are some cases when basic or/and additional allowances are not taken into account for the withholding tax, but apply for final tax liability (final tax liability is based on the tax report after the tax year has ended):

1. if a person receives only those incomes which are subject to reduced 15% income tax, or is self-employed (except those working under business certificate) or farmer, the basic and additional allowances are returned only after filling the annual tax return form;
2. if a person has worked less than 12 months;
3. if a person wants to return unused spouse's additional allowance (it may happen if a spouse has received other than work income; has not received income; has received only non-taxable incomes and/or income under business certificate; has received not enough work income).

In those cases annual amount of allowance is established by summing up the amounts of the allowances in respective months of the tax period applicable to that individual. The annual amounts of additional allowances are established by the same pattern, summing up the amounts in respective months of the tax period applicable to the parents (adoptive parents) and are equally split and deducted from the total income of the parents (adoptive parents) for the taxable period.

Both withholding and final taxes are part of personal income tax simulation, and depends on the applied tax rates.

Since the 1st January 2009 the basic and additional personal income tax allowances are applied only to the employment-related income or to income which conforms to the essence of

employment relations (further referred as “employment-related income”, see below for explanations).⁴⁷

When estimating the amount of the monthly general personal income tax allowance (applied at the source), only employment-related income is taken into account, which includes:

- salary, bonuses and premiums (monthly, quarterly, annual),
- sickness allowance for the first two days of the illness (paid by the employer),
- compensation for unused vacation,
- payments for overtime work, working on holidays and weekends, at night, or for the idle time,
- holiday payments,
- per diem if exceeds the statutory rate,
- other additional earnings paid directly by an employer to an employee for work performed.

Sickness, maternity, paternity and maternity (paternity) leave benefits are also included into the employment-related income.

The applicable monthly general allowance is calculated in accordance with the following formula:

$$\text{The monthly general allowance} = 470 - 0.2 * (\text{monthly employment-related income} - 800)$$

If in accordance with this formula calculated general allowance is negative, it is considered to be equal to 0.

When estimating the amount of the annual income tax allowance, *resident's annual income* is taken into account, which includes all income taxed by the income tax received by the person during the taxing period, excluding income received from life insurance or private pension contract (if contract expired or was cancelled and payouts not exceed the amount of paid contributions). Non-taxable income is not included into the resident's annual income. Since 2010 income taxed by 5% income tax rate are also excluded from the resident's annual income, as well as income for which income tax was paid when acquiring business certificate.

The annual basic general allowance is 5,640 LTL (470 LTL per month) if the resident's annual income does not exceed 9,600 LTL (800 LTL per month before health insurance contributions, social insurance contributions, income tax). If the resident's income is higher, the basic general allowance is calculated using the following formula:

$$\text{The annual general allowance} = 5,640 - 0.2 * (\text{resident's annual income} - 9,600)$$

If the resident's annual income is higher than 37,800 LTL the basic general allowance is not applicable.

For the residents (for parents or adoptive parents), raising children (adopted children) under 18 years old or older, if enrolled in full-time secondary education and not emancipated, an additional personal income tax allowance (for each child) is applied. The additional monthly basic additional allowance is equal to 100 LTL for the first child (adoptee), 200 LTL for the second and each subsequent child (adoptee) which can be equally shared among the parents.

⁴⁷ For not permanent residents tax allowance can be applied, but only on the annual basis after the annual income is declared.

For the residents with 0-25% of working ability level, those who have reached retirement age and have a high level of special needs, or for the residents who have a heavy level of disability, the basic allowance of 800 LTL is applied.

For the residents with 30-55% of working ability level, for those who have reached retirement age and have a medium or small level of special needs, or for the residents, who have a medium or light level of disability, the basic allowance of 600 LTL is applied.

Table 2.12 Personal income tax allowances (LTL per month), as of June 30, 2009-2013

Allowances	2009-2013
Basic allowance (highest applicable)	
- General	470*
- For the disabled of group I	800
- For the disabled of group II	600
Additional allowance: for parents (adoptive parents) raising children under age 18 or older if in full-time secondary education in addition to the basic allowance, additional allowance is applied per eligible child (can be shared among the parents)**	100 LTL for the first child (adoptee), 200 LTL for the second and each subsequent child (adoptee)
For employees of agricultural activity subjects, when the subject's income from actual agricultural production per year is not less than 50% of total revenue; For employees of farmers who have registered their farm	Not applicable

Notes: * 470 LTL applies only if the resident's annual income does not exceed 9,600 LTL (800 LTL per month before health insurance contributions, social insurance contributions, income tax). If the resident's income is higher, the general allowance is calculated using the following formula: The annual basic general allowance = 5,640 – 0.2 * (resident's annual income – 9,600). If the resident's annual income is higher than 37,800 LTL, the basic general allowance is not applicable.

**Additional allowance is applied by dividing the amount equally between parents (adoptive parents) if both of them have taxable income.

Note: All allowances are defined on the individual level. If a person meets more than one of the criteria as indicated in the table, the highest amount is applied.

2.7.4 Tax base

Tax base is derived from *gross income* by deducting the following components:

- non-taxable income (all state social assistance and some social insurance benefits (e.g., pensions, disability benefits), etc.),
- income received from activities conducted under a business certificate,
- allowable deductions related to income from individual activities,
- the acquisition price of property and expenses related to it,
- basic and additional tax allowances (for families with children, disabled, farmers, etc)
- particular expenses incurred by a resident (when calculating taxable income of fiscal year).

Since 2009 no deductions can be made to the income from distributed profit (dividends). The expenses incurred by residents can be deducted only from the income that is taxed by 15% rate of PIT.

For 2005-2008, taxable incomes s.t. the standard tax rate (in EUROMOD) includes (applying both for withholding and final tax liability): employment income, severance pay, maternity leave benefit, maternity (paternity) leave benefit, sickness benefit. Taxable incomes s.t. the reduced tax rate include investment income, rental income and private pensions in case of

withholding tax. For final tax liability, self-employment income (net of self-employed pension SIC) is included as well except for those operating under the business certificate.

With respect to the income derived from activities conducted under a business certificate, a fixed amount set by municipal councils is paid.

2.7.5 Tax schedule

Before 2009:

Lithuania applies a flat tax rate system to personal income. Effective from 30th June 2005, incomes were taxed by 15% (reduced) or 33% (standard) rate according to the nature of income.

The 15% rate applied to the following income (those in *italic* cannot be accounted for in the model):

- from distributed profit;
- income derived by sportsmen from sports activities;
- income derived by performing artists from performing activities;
- royalties;
- income derived from the rent of property;
- income derived from creative activities under commission contracts;
- income from other individual activities;
- *proceeds from the sale or other transfer into ownership of property other than that related to individual activities;*
- part of supplementary private pensions received;
- pensions from voluntary second pillar insurance, retrieval from contributions to voluntary pension or life insurance;
- *reimbursed pension contributions paid by an individual to a pension fund where a person withdraws from a pension scheme and does not join another scheme;*
- *part of benefits paid under a life insurance contract;*
- *reimbursed life insurance premiums under a terminated life insurance contract.*

The personal income tax rate of 15% remained stable during the course of 2005-2008. The rate of 33% was applied to all other taxable incomes (salaries; sickness, maternity leave, paternity leave and maternity (paternity) benefits; severance and termination payment) in 2005. There were changes in the main personal income tax rate during the course of 2005-2008 (Table 2.16).

Changes effective since 2009:

In 2009 all incomes, except incomes from distributed profit, were taxed by 15% rate. Incomes from distributed profit (dividends) were taxed by 20% rate.⁴⁸ Income from individual activities, except of income from “free occupations”⁴⁹ and from securities, received since the beginning of 2010 is taxed by 5% rate.

⁴⁸ According to the following law “Lietuvos Respublikos Gyventojų pajamų mokesčio įstatymo 2, 3, 5, 6, 7, 8, 9, 10, 12, 131, 16, 17, 18, 19, 20, 21, 22, 23, 27, 29, 30 straipsnių pakeitimo ir papildymo ir įstatymo papildymo 181 straipsniu įstatymas“. 2008.12.23 Nr. Xi-111: http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=334556

⁴⁹ “Free occupation” is defined as an individual independent intellectual services provided by people who have required qualifications to clients and the public. Engaged in independent occupation activities are those independently providing services in the following fields: legal, economic, medical and health protection, education and training, other (lobbyists, architects, engineers, designers, journalists, reporters,

Table 2.13 Personal income tax rates (%), as of June 30, 2005-2013

	2005	2006	2007	2008	2009	2010-2013
Main personal income tax rate	33	33	27	24	15 (20% for income from distributed profit (dividends))	15 (20% for income from distributed profit (dividends))
Reduced personal income tax rate	15	15	15	15	Not applicable	5*

* 5% income tax rate applies for income received since the beginning of 2010 from individual activities except of income from “free occupations” and from securities besides the same rate applies to farming income (if farm is bigger than 14 ESU⁵⁰). From 2011 this rate also applies to individuals who are working in the farm and are registered as VAT payers.

Personal income tax changes usually take place on the 1st of January or the 1st of July. The decrease in the main income tax rate from 33 to 27 happened on July 1, 2006. Subsequent reduction to 24% took place on January 1, 2008, and to 15% was effective since January 1, 2009.

2.7.6 Tax credits (deductible expenses)

The following expenses incurred by a resident of Lithuania during the tax period may be deducted from his/her income:

1. Life insurance contributions paid for his/her own benefit or for the benefit of his/her spouse or minor children (adopted children) or for disabled children (adopted children) under 18 and older who are rated as totally disabled under life insurance contracts which provide for an insurance benefit not only upon the occurrence of an insurance event, but also upon the expiry of the term of the insurance contract.
2. Voluntary pension contributions paid for own benefit or for the benefit of a spouse or disabled children (adopted children) under 18 and older who are rated as totally disabled to pension funds.
3. Interest paid on the loan taken out for the construction or acquisition of housing to banking and other credit institutions, or funds and state financial institutions of foreign countries entered into the list by the Minister of Finance, where over 50% of shares (interests, member shares) are held by governments of foreign countries, as well as interest paid to a financial institution on the financial lease (leasing) of housing. Since 2009 applicable only to interests paid on loans taken before 2009, not applicable to new loans.
4. Payments for vocational training⁵¹ and all other studies (when higher education and/or qualification is obtained upon graduation, as well as doctoral studies and art post-graduate studies). If payments for studies are made with borrowed funds (a loan is taken out from a credit institution for that purpose), the repaid amount of the loan during the tax period may be deducted from income.

stylists, editors, translators, computer programmers, systems designers, project managers, as well as other people, individually providing intellectual service).

⁵⁰ European size unit (ESU) is a standart gross margin 1200 that is used to express the economic size of an agricultural holding or farm (Eurostat glossary:

[http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:European_size_unit_\(ESU\)](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:European_size_unit_(ESU))).

⁵¹ This part was added in 2008.

5. Payments for a single personal computer unit with software, acquired once per period from 2004 to 2008, and/or for the installation of Internet access together with the acquisition costs of access equipment, which do not exceed LTL 4,000. Where the computer unit with software is acquired under a contract providing for the transfer of ownership rights to the buyer only after the payment of the total price specified in the contract, the actually paid-up part of the price (except for interest) may be deducted from income. However, the total amount of deductions may not exceed LTL 4,000 (including the acquisition costs of installing internet access and acquiring access equipment) during the term of validity of the contract. Since 2009 applicable only to payments on computers bought before 2009, not applicable to new payments.

Effective on 30th June 2005: If a student is under 26 years and he or she is not a payer of income tax or has no possibility to deduct payments for studies, those expenses may be deducted from the incomes of one of his/her parents (adoptive parents) or guardians, brother, sister, and (or) from incomes of spouse (cohabitant).

No age requirement for students is anymore specified in the law effective on 30th June 2006-2008.

The total amount of deducted expenses cannot exceed 25% of the total tax base after deducting tax allowances.

The amount of the tax refund is equal to deductible expenses (s.t. the upper limit) multiplied with the relevant tax rate (main vs reduced rate). The proportion of expenses on which the main (reduced) tax rate is applied is equal to the ratio of incomes, s.t. the main (reduced) tax rate, to total tax base before deducting tax allowances.

Expenses are deducted from income when calculating final income tax liability for the tax period and filing an annual income tax return.

2.7.7 Withholding tax and final tax liability

Almost on all income sources (except self-employed, farmers' and income from property sale and so called "other" incomes) income tax is already withheld at the time of payment. Self-employment income and farmers' income are subject to final tax, which is calculated with the yearly tax declaration.

Generally, compared to withheld income tax, final income tax takes into account several additional aspects:

1. Income from self-employment;
2. Income received by farmers and their partners;
3. Income from property sale or other movable asset (worth more than 3,000 LTL);
4. Other received incomes (from agricultural production worth more than 10,000 LTL per year; work incomes from other countries; profit from individual enterprise, dividends received from other countries; more than 2,000 LTL of interest received from EEA countries, incomes from gambling, etc.)
5. Annual (basic and additional) allowances if a person used not all annual amount (i.e. if a person worked not 12, but less months; if individual receives only incomes from authorship contracts; if a person haven't used additional allowance). Since 2009 annual basic allowance is recalculated, taking into account received taxable income (see part 2.6.3 for details)
6. and deductible expenditures.

EUROMOD notes

It is not possible to distinguish between different disability groups and hence all (self-reported) disabled people are assumed to belong to Group I.

Among deductible expenses only voluntary pension contributions and mortgage interest payments could be simulated given the data availability.

The fee for business certificate is not simulated due to data constraints.

3. DATA

3.1 General description

An overview of the established combinations of EUROMOD LT datasets and policy years is given in Table 3.1. Our focus is on the EUROMOD LT- data 2010. The descriptions of the EUROMOD LT-data 2006 & 2008 could be found in the preceding EUROMOD Lithuania country reports.

Table 3.1 EUROMOD LT 2007-2012: data and policy years

	2005	2006	2007	2008	2009	2010	2011	2012	2013
LT-data 2006	X	X	X	X	X				
LT-data 2008			X	X	X	X	X		
LT-data 2010					X	X	X	X	X

EUROMOD LT- data 2010 is mainly derived from the EU-SILC UDB (thereafter also referred to as UDB or EU-SILC data). In addition, the Lithuanian (or National) SILC survey (i.e. *Pajamų ir gyvenimo sąlygų tyrimas*) is used to include a few other variables and inform imputations. We describe both datasets, as well as EUROMOD LT-data 2010, in more detail.

The EU-SILC UDB survey has a 4-year rotational panel survey design. The data is collected using a face-to-face interviewing of all respondents aged 16 and over. In the Lithuanian part of the EU-SILC survey, additional information on income and taxes paid is obtained from a few administrative sources, such as the State Tax Inspectorate and the State Social Insurance Fund Board. The National SILC survey is the underlying micro-dataset on Lithuania for the EU-SILC. It contains additional information, which is otherwise excluded in the UDB version (e.g. on national benefits). This information is highly useful for enlarging the scope of EUROMOD Lithuanian policy simulations⁵². As a result, EUROMOD LT-data 2010 is constructed using both the EU-SILC UDB and the National Lithuanian SILC information. Table 3.2 provides a short description of the latter database.

⁵² The list of variables which are merged into the EUROMOD LT-data 2010 from the National SILC is provided in Table 3.5.

Table 3.2 EUROMOD LT database 2010 short description

	Description
EUROMOD database	LT_2010_a2
Original name	<i>EU-SILC – Community Statistics on Income and Living Conditions (Anonymised User Database UDB) + merged variables from “Pajamų ir gyvenimo sąlygų tyrimas”</i>
Provider	EUROSTAT (EU-SILC); Statistics Lithuania (<i>Pajamų ir gyvenimo sąlygų tyrimas</i>)
Year of collection	2010
Period of collection	May-June
Income reference period	2009
Sampling	Households are selected from the Residents’ Register using a random sampling method. The entire Lithuanian territory was divided into 7 non-overlapping groups – strata. From every stratum, a one-stage simple random sample is selected. The 5 largest cities of Lithuania, towns and rural areas are divided into separate strata. Sample size of households in every stratum is proportional to the number of population aged 16 and over in them
Unit of assessment	Household and individual
Coverage	Private households. Persons living in the institutional households (e.g. in care or imprisonment institutions, etc.) are excluded
Sample size	13235 individuals, 5314 households
Response rate	Household response rate is 83.5% (5314 out of selected 6364)

Source: Statistics Lithuania (2011)

3.2 Sample quality and weights

The target population of the SILC data is private households (Statistikos Departamentas, 2011). Persons living in the institutional households are excluded. Households are selected from the *Residents’ Register* using a stratified sampling design with a simple random sample in strata. For this, the entire Lithuanian territory is divided into 7 non-overlapping groups – strata (the 5 biggest cities of Lithuania Vilnius, Kaunas, Klaipėda, Šiauliai and Panevėžys; other towns; rural areas). The sample size of households in every stratum is proportional to the number of population aged 16 and over in them.

3.2.1 Non-response

Based on Statistics Lithuania (2011), 2193 households from the 5 biggest cities participated in the survey, in other towns – 1392, in rural areas – 1729. The highest non-response was in the 5 biggest cities (22%), the smallest – in other towns and in rural areas (10%). One of the most significant reasons of household non-response was the refusal to cooperate (12% of the households in the largest cities; and 5% - in rural areas).

3.2.2 Weights

The EU-SILC UDB dataset uses a few types of cross-sectional survey weights, such as:

- the household cross-sectional weight (variable db090) – the weight calibrated with the target population of private households and corrected for household non-response.
- the personal cross-sectional weight for all household members of all ages (variable rb050) is used to draw inference on individual basic demographic variables for the population of all individuals living in private households. Because all the current members of any selected household are surveyed, the personal weights rb050 are equal to the corresponding household cross-sectional weight db090.

- the personal cross-sectional weights for all household members aged 16 and over (target variable pb040) is used to draw inference on the variables included in the personal questionnaire. These weights are corrected for individual non-response.

Table 3.3 Descriptive statistics of the grossing-up weight rb050 (=db090)

	EU-SILC UDB Lithuanian data
Number	13235
Mean	250.8471
Median	150.2293
Maximum	3674.167
Minimum	2.94279
Max/Min	1248.5318
Decile 1	42.76193
Decile 9	538.4725
Dec 9 / Dec1	12.592334

Lithuanian EU-SILC sample statistics has been projected to a reference population of **3,319,961** individuals in 1,354,383 households. The used weights are calibrated on the demographic data at the beginning of the survey year (i.e. 2010). In addition to the major age groups (around 17 sub-groups) and gender, the survey is calibrated by the residence area: the major 5 cities, other towns and rural areas. Thus 2010 EU-SILC data does not take into account the latest Population Census conducted in 2011.

3.2.3 Item non-response and under-reporting

No households are treated as non-responding. Consequently, no major income components have an item non-response. As the EU-SILC does not contain country specific types of transfers, few income components could be compared with the external national administrative records. Here, we report on the representational validity of the EUROMOD variable on gross employment earnings (see Table 3.4). The changes in the earnings' total values during the years 2010-2012 are due to the application of the up-rating factors on the 2009 incomes (see Section 3.5).

EUROMOD information on gross earnings is under-reported by less than 10 percentage points in comparison to the administrative statistics in the base year of 2009. In 2010 – 2011 EUROMOD gross-earnings remain under-reported – at the ratio of 0.89. Administrative statistical data is not yet available for 2012, but forecasts using indications for the first three quarters of the year – show that most likely a comparable ratio will apply for 2012 earnings.

Table 3.4 Gross earnings in EUROMOD and external statistics, mln LTL

	2009	2010	2011	2012	2013
EUROMOD LT-2010 gross earnings (yem)	29,701.4	27,692.0	29,533.8	30,488.6	
Lithuanian Statistics: gross earnings	32,151.5	31,207.4	33,132.3	34,782.0	34,736*
Ratio: EUROMOD/LT Statistics	0.92	0.89	0.89	0.88	

Note: Gross earnings are gross wages and salaries, and include both remuneration in cash and in kind, but exclude employers' social contributions. (*) the figure is forecasted as it is based on the first quarter of 2013 which equals to 8,684.0 mln LTL. The assumption is that amounts will be the same for the rest three quarters of the year.

Sources: Statistics Lithuania accessed on 13.08.2013 (*Database: M2010269: “Kompensacija darbuotojams bei algos ir atlyginimai pajamų metodu. Požymiai: ekonominės veiklos rūšis” and M2010129: Kompensacija darbuotojams bei algos ir atlyginimai pajamų metodu.*)

3.3 Data adjustment

Adjustments to variables are kept to a minimum. Some minor data cleaning is done to ensure that the relationships of individuals within households are coherent. As we focus on the income reference year (2009), children who are born in the year of the survey (until the survey time, which is May-June in Lithuania) are dropped from the final micro dataset - 19 observations.

3.4 Imputations and assumptions

3.4.1 Time period

The EU-SILC information on demographic variables mainly refers to the time of data collection (May-June, 2010). Some included demographic information (e.g. age variables) also reflects the status quo at the end of the income reference period (2009). Similar situation is observed for socio-economic and labour variables. For example, variable rb210 (i.e. basic activity status) refers to the data collection time, while variable pl073 indicates a number of months in full time work during the income reference period (the calendar year of 2009). For the construction of EUROMOD LT data, the demographic, labour and socio-economic information is based – when possible - on the EU-SILC variables referring to the income reference period.

The EU-SILC UDB 2010 information on incomes refers to the calendar year of 2009. Some additional information on the number of income payments per year and monthly amounts has been obtained and imputed from the National SILC information. This has been done for selected income sources only. All monetary incomes in the EUROMOD database are converted into monthly terms, based on a 12-month receipt period. In the EUROMOD calculations, it is implicitly assumed that income is received at the same rate throughout the year.

The EU-SILC does not contain information on how many times per year a certain type of income is actually received. National SILC, on the other hand, collects this information for some income variables. This information is (partially) used to construct EUROMOD variables on how many times a particular income type was paid over the year (e.g. bunmy – number of month per year receiving an unemployment benefit). In cases, where the National SILC does not carry the relevant information on the frequency of income receipts, other types of imputations/assumptions have been applied. For example, if the concerned income variable is reported as an aggregate income type (e.g. old-age pensions), a corresponding EUROMOD variable on the “months of benefit receipt” is constructed by summing the number of different pensions’ receipts – to the extent that this information is available in National SILC. The maximum number of months is set to 12. Also, if the information on a number of months of receiving one or another benefit is missing in National SILC, the relevant EUROMOD variable is constructed based on the indication on how many months a person has spent in a certain socio-economic activity type (i.e. the EU-SILC UDB variables pl*).

3.4.2 Gross incomes

The EU-SILC UDB survey contains information on both gross and net monetary incomes, if applicable. The survey also contains flag variables, which indicate if the observation has been collected either in gross or net form, imputation method and imputation factor (collected/recorded).

3.4.3 Merged and imputed variables

Table 3.5 provides information on the variables that have been merged from the National SILC into the EUROMOD LT-data 2010. No other major modifications have been done for these variables.

Table 3.5 EUROMOD LT database: variables merged from the National SILC

LT-data 2010 variables	Description
lbl	Business certificate activity
lseor	Owners of individual enterprise
lsepf	People engaged in individual activities (i.e. type of self-employment)
bchor	Guardianship benefit
bsa00	Social benefit
bma	Maternity and maternity (paternity) benefits
kfbmy	Fringe benefits – a number of months received
amrar	Useful floor space (m2) of the main residence
aldar	Area of own or rented land (hectares)
aldagar	Area of own or rented agricultural use land (hectares)

A number of EUROMOD LT-2010 variables are constructed using (merged) information both from the National SILC and EU-SILC UDB surveys, plus – when needed – a number of other imputations. The main reason for such a construction of the variables is related to incomplete or missing information in both surveys. The concerned variables are:

- Severance pay (yunsv variable);
- Early retirement benefit (byr variable);
- Unemployment insurance benefit (bunct variable);
- Employment earnings – a number of months received (yemmy variable);
- Unemployment benefits – a number of months received (bunny variable);
- Disability pensions – a number of months received (bdimy variable);
- Work history – a length of time in months (liwwh variable).

Information from the National SILC is also used in some other EUROMOD LT-2010 variables construction cases. For example, *les* variable on the economic status is mainly derived from the EU-SILC UDB reported income variables. However, information from the National SILC is used to form one of the *les* variable categories – a farmer status. The latter information is not available in the EU-SILC UDB survey. The National SILC, on the other hand, reports on the “income received from the agricultural activity”. This information - in comparison to the relative importance of the other income sources - is used to make an assumption on being engaged in the farmer economic activities. EUROMOD LT-2010 *lfs* variable on the firm size also utilises information from the National SILC to make a better informed assumptions. Here, we utilise the National SILC information on whether a self-employed person is working alone or has also some employees.

Some EUROMOD LT-2010 are constructed based on the external macro statistics and selected EU-SILC information. For example, a variable *afc* on the financial capital assets is constructed in relation to the EU-SILC variable on investment income and in relation to the external information of the arithmetic average between the central bank base interest rate⁵³ and a harmonised indice of consumer prices (HICP)⁵⁴. A variable *amrmv* on the market value of the main residence is constructed in relation to the EU-SILC variable on the imputed rent value for

⁵³ <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00096>

⁵⁴ <http://epp.eurostat.ec.europa.eu/portal/page/portal/hicp/data/database>

owner-occupiers and the gross rental multiplier (GRM) value. The latter value is selected based on some empirical data review and expert opinions. A number of other housing characteristics, as reported in the EU-SILC, are also taken into account to differentiate the final market value.

In order to account for labour market changes, there are also additional variables imputed marking new unemployed in 2009-2011 (with a separate dummy variable for each year). This has been done on the basis of Eurostat LFS information showing relative increase in unemployment by age, gender and education since 2007 and the year in question. The new unemployed in EUROMOD dataset have been chosen randomly within a corresponding cell of employed people aged 15-74 so that the same relative increase in unemployment is reached. An employed person is defined as the one with either employment or self-employment income, ignoring those who also reported having an unemployment spell in the income reference period or in receipt of unemployment benefit as well as students (unless had been also working full year). All related variable adjustments for new unemployed are done in EUROMOD (in the 'policy' called `empl_lt`).

3.5 Updating

To account for time inconsistencies between the input dataset and the policy year, updating factors are used. Each monetary variable (i.e. each income component) is updated so as to account for changes in the non-simulated variables that have taken place between the year of the data and the year of the simulated tax-benefit system. Updating factors are generally based on changes in the average value of an income component between the year of the data and the policy year. For detailed information about the construction of each updating factor as well as the sources that have been used, see Annex 3.

As a rule, updating factors are provided both for simulated and non simulated income components present in the input dataset. Note however that in the case of simulated variables, the actual simulated amounts are used in the baseline rather than the updated original variables in the dataset. Updating factors for simulated variables are provided so as to facilitate the use of the model in cases when the user wishes to turn off the simulation of a particular variable. The list of updating factors as well as the sources used to derive them can be found in Annex 3.

No other updating adjustments are employed; therefore the distribution of receipts of non-simulated incomes remains constant throughout the period, while the level of amounts received changes in line with the updating factors. The variables included in EUROMOD on household and personal characteristics, such as housing type, employment status or demographic attributes, are constant in relation to the basis year (in the baseline scenario).

Structural cuts in pensions (`boa`, `bdi`, `bsu`, `byr`) were simulated in EUROMOD as a separate policy for 2009-2011 (see Annex II for details).

4. VALIDATION

4.1 Aggregate Validation

EUROMOD results are validated against external benchmarks. Detailed comparisons of the number of people receiving a given income component and total yearly amounts are shown in Annex I. Both market incomes and non-simulated taxes and benefits in the input dataset as well as simulated taxes and benefits are validated against external official data. The main discrepancies between EUROMOD results and external benchmarks are discussed in the following subsections. Factors that may explain the observed differences are also discussed.

4.1.1 Definition of disposable income

Before commenting on how different income components in EUROMOD compare against their external aggregates, this subsection outlines the differences in the definition of disposable income in EUROMOD and EU-SILC 2010. The major components of disposable income are the same in both sources: original incomes (+); benefits (+), taxes (-), employee social insurance contributions (-); and self-employed social insurance contributions (-). However, at the level of individual components there are two differences as can be seen from Table 4.1:

- EU-SILC 2010 includes (imputed) annual value of (using) a company car, while EUROMOD definition of disposable income excludes this type of income;
- Pension from individual private plans is included in the disposable income concept in EUROMOD, while it is excluded in EU-SILC 2010.

Apart from differences in the definition, the *value* of disposable income from both sources can differ for a given household as simulated income components in EUROMOD can differ for a number of reasons from their observed counterparts in EU-SILC dataset.

Table 4.1 Components of disposable income

	EUROMOD	EU-SILC 2010	Notes
	ils_dispy	hy020	
Employee cash or near cash income	yem	py010g	yem is derived from py010g
Company car	-	py021g	
Cash benefits or losses from self-employment	yse	py050g	yse is derived from py050g
Pension from individual private plans	ypp	-	ypp is derived from py080g
Investment income	yyi	hy090g	yyi is derived from hy090g
Income from rental of a property or land	yprrt	hy040g	yprrt is derived from hy040g
Income received by people aged under 16	yot	hy110g	yot is derived from hy110g
Regular inter-household cash transfer received	ypt	hy080g	ypt is derived from hy080g
Regular inter-household cash transfer paid (-)	xmp	hy130g	xmp is derived from hy130g
Old-age benefits	boa	py100g	boa is derived from py100g
Survivor' benefits	bsu	py110g	bsu is derived from py110g
Disability benefits	bdi	py130g	bdi is derived from py130g
Unemployment benefits	yunsv, byr, bunct_s	py090g	3 comp. in EUROMOD: byr (early retirement), yunsv (severance pay) & bunct_s (unempl. ben.); byr & yunsv are derived using EU-SILC (py090), Nat. SILC & external admin. info; bunct_s is EUROMOD simulated.
Housing allowances	bho	hy070g	bho is derived from hy070g

Family/children related allowances	bchor , bch00_s, bchba_s, bplct_s bmaprnc_s, bmaprct_s, bmact_s	hy050g	all “_s” variables are EUROMOD simulated benefits; bchor is merged from Nat. SILC
Education related allowances	bed	py140g	bed is derived from py140g
Sickness benefits	bhl	py120g	bhl is derived from py120g
Social exclusion not elsewhere classified	bsa00_s, bsals	hy060g	bsa00_s is EUROMOD simulated benefit; bsals is derived using EU-SILC (hy060g), Nat. SILC & external admin. info
Tax on income and social contributions (-)	tin_s, ils_sicee, ils_sicse	hy140g	EUROMOD data includes 3 simulated components; tin_s refers to final tax liability (for 2007 incomes). hy140g also refers to final tax liability; among other components it includes any tax reimbursement received in 2007 (also for income received in previous years);
Regular taxes on wealth (-)	tpr	hy120g	tpr is derived from hy120g

4.1.2 Validation of incomes inputted into the simulation

Note: Please see Annex I for tables.

Table 4.1 shows that the number of employed in the baseline (2009) is well aligned with external statistics with a ratio between the two values being 1 in 2009. It is slightly worse in 2010 (1.05), while for 2011 and 2012 the ratio is 1.11 and 1.13 respectively. As no adjustments are made to the employment situation in the baseline EUROMOD data, the number of unemployed people remains stable throughout 2009-2012. This causes under-estimation of unemployed people in 2010 (the ratio is 0.9, which shows the impact of the financial crisis on the Lithuanian labour market) and over-estimation of the number of unemployed in 2011 and 2012 when the labour market situation starts improving. According to the external statistics, the number of unemployed people decreases from 2011 afterwards, resulting in ratios 1.17 in 2011 and 1.36 in 2012. In order to account for the labour market changes, optional employment adjustment module was introduced for the period of 2009-2013 (it is available for Lithuania and other selected EU countries on request). The impact of employment adjustments on the main EUROMOD indicators is briefly described in Section 4.1.8.

We further discuss the results we get for non-simulated income sources (market income, non-simulated benefits and taxes). It should be noted that weights for the Lithuanian EU-SILC are calibrated only towards the demographical variables⁵⁵. Different to the common practice, no calibration is done towards the external income aggregates. Thus discrepancies between the aggregate amounts and reciprocity of the major sources of income in the survey compared to those shown by external statistics may occur. Minor income sources, such as small types of benefits, suffer from not being representative in the survey. The standard updating procedure applied in EUROMOD would not correct for this, but instead should move the estimates in the

⁵⁵ See EU-SILC quality reports available at: http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/quality/national_quality_reports

parallel way relative to the dynamics shown by external sources. We thus focus on validating the base year (i.e. 2009) and checking the dynamics of income in the following years. Moreover to the best of our knowledge EU-SILC weights were calculated for 2012 data (2011 income) taking into account the information on the change in the demographic structure following the census in 2011 in Lithuania. The main indicators were also re-estimated for 2011 SILC (2010 income). According to the census Lithuanian population was around 10% smaller in 2011 compared to the previous estimates. As no adjustments are made for demographic change in EUROMOD, we don't capture this structural break in the series.

There are numerous gaps in external statistics on the number of market income recipients and aggregate amounts. Table 4.2 shows that the number of people receiving employment income in 2009 is over-estimated in EUROMOD compared to the LFS figures – ratio equal to 1.22. This may be partially explained by the fact that EU-SILC based data would pick up income received for short periods of time and sum the recipients across the year, while in LFS the average annual number of those receiving employment or self-employment income is presented. As the period of 2008-2013 was very volatile what concerns the situation in the labour market, over-estimation in the number of recipients is plausible in EUROMOD. Another important reason for over-estimation of this (and other) important type of income receipt is the fact that the weights are constructed calibrating only towards the demographic variables that have not yet been adjusted to reflect a decrease in the Lithuanian population recorded by the census in 2011. This ratio has worsened afterwards (ranging from 1.34-1.37 in 2010-2012), mainly due to changes in the labour market. The number of self-employment income recipients is highly over-estimated throughout all the years, with ratios ranging from 1.64 in 2009 to 2.08 in 2011 and decreasing a little bit in 2012 (ratio is 1.93).

While discrepancies in the reciprocity numbers may be for different reasons, the amounts and dynamics of employment income in EUROMOD are better matched to the external statistics (see Table 4.3). We use the information on aggregate wages and salaries from the national accounts that is not strictly comparable with the survey estimates available in EU-SILC. The total amount of employment income is under-estimated in EUROMOD by around 8% in 2009-2010, while starting with 2011 under-estimation further increases to around 12%. Thus we seem not to capture the growth in the aggregate amount of the employment income fully between 2010 and 2011, which may be due to slight improvements in the labour market observed in that period. This is backed up with the fact that the ratios of the average monthly employment income in EUROMOD compared to external LFS statistics are stable (see Table 4.3) and captured precisely across the years (deviation of not more than 1%). Proper statistics for other types of market income are not available. Between 2012-2013 EUROMOD picks up an increase in the market income which was expected due to resumed economic growth in the country and inflation.

Table 4.4 shows the number of recipients of the pensions and other not simulated benefits. The number of recipients of old-age and disability benefits in EUROMOD is constructed by summing up non-overlapping types of benefits before and after retirement age (and as such may underestimate the true composite figure). The data shows that the number of recipients of old-age benefits is indeed slightly underestimated in EUROMOD by 3-4 percent in 2009-2012. The number of recipients of disability pensions before retirement age is also under-estimated compared to external statistics with a ratio 0.86 in 2009, and improving as the number of actual recipients drops in the following years (a final ratio of 1.01 in 2012). As for the number of early retirement pension recipients, only few cases are recorded in the EU-SILC based EUROMOD data while the external statistics records from 7 to 29 thousands of them in 2009-2012. This may be due to benefit aggregation issues in the UDB-SILC or low representation of this group in the survey.

The number of recipients of non-simulated guardianship benefit and compensation for utilities is underestimated in EUROMOD by almost a half (except for the compensation for utilities in 2009 when ratio was 0.71). The ratio of the number of recipients of the municipal and NGO support is even lower (the numbers of administrative statistics refer to individual recipients though). Sickness social insurance benefits are widespread, although there is no suitable administrative data on the number of recipients as the number of cases of illness is registered.

Aggregate amounts of non-simulated taxes and benefits are provided in the Table 4.5. Old-age benefits are slightly under-estimated throughout the years by around 5%. This is consistent with slight under-estimation of the number of recipients and it seems we capture structural cuts on pensions well in EUROMOD. The aggregate amount of disability benefits before the retirement age is also under-estimated in EUROMOD. The under-estimation decreases throughout the period as the number of recipients goes down in the external statistics. The average amounts of disability benefits before retirement age are somewhat lower in the EU-SILC based data, since the number of recipients is better aligned (see Table 4.4). As already mentioned above, the number of recipients and the total amount of the early retirement pensions is highly under reported in EU-SILC. The aggregate variable for survival benefits' consists of a few major components: survivor and orphan pensions (before retirement age), funeral benefit and grant in case of death of an insured person. However no comparable external information is available and the aggregate category cannot be validated.

What concerns aggregate amounts of other not simulated benefits it should be noted that the structural changes in state social insurance sickness benefits in 2010 were not well captured in EUROMOD by the regular updating procedure: the aggregate amounts are strongly over-estimated for 2010-2012 (ratios 1.94, 1.87 and 1.74). The ratios of the aggregate amounts of the municipal and NGO support show that the decrease in such support during the crisis in 2009-2012 could not be captured by EUROMOD as the number of recipients is kept constant. According to administrative statistics expenditure on compensations for utilities has constantly increased since 2009. The expenditure on compensations is under-estimated in EUROMOD data for all years. The best ratio was in 2009 (0.82), while the worst ratio was in 2011 (only 0.5). The increase in expenditure was both due to the increase of recipients and the cost of the utility services, which are not simulated in EUROMOD. There is a stable fit of the aggregate amounts of the guardianship benefits as calculated by the EUROMOD and external statistics (ratios from 0.71 to 0.76). Given the ratio of the number of recipients for this benefit (see Table 4.4), it could be concluded that its average annual receipts are over-estimated in EUROMOD. What concerns education allowances, which are allocated on a local level, there are no proper statistics on the number of recipients and aggregated amounts spent on these benefits.

In the case of not simulated tax, the number of property tax payers is also not available and is only validated against the total amount of taxes paid. The ratio is 0.95 in 2009 and accounts for not more than 2 percent difference afterwards.

4.1.3 Validation of outputted (simulated) incomes

Note: Please see Annex I for tables.

Table 4.6 shows EUROMOD and external data on the number of simulated benefit recipients and tax/contribution payers. The number of children eligible for child benefits is better aligned in 2012 (i.e. ratio 0.9) and is more under-estimated in EUROMOD previously. This benefit underwent a number of structural changes in 2008-2013, which are modelled in EUROMOD. We capture the fall in the number of eligible children between 2009 and 2010 and further tightening of eligibility condition in 2012. The number of recipients of a birth grant is well simulated with a deviation of no more than 10 percent in all years (the ratio in 2012 is 0.97), while the number of recipients of the pregnancy grant (non-contributory maternity benefit) is

under-estimated for all the years (ratios ranging from as little as 0.55 in 2011 up to 0.71 in 2009). This is however a minor benefit both in terms of reciprocity and aggregate amounts. The number of social assistance recipients is over-estimated in EUROMOD comparing with administrative data in 2009 (ratio around 1.3), and under-estimated thereafter by around a half of the number of recipients. This was to a large extent due to financial crisis and labour market changes (see Section 4.1.8 for validation including employment adjustments).

Among the contributory benefits the ratio for maternity benefits increased from 0.88 in 2009 till 1.35 in 2012 mainly due to changes in fertility that EUROMOD does not account for. We validate the modelled maternity (paternity) and paternity benefits only towards the total amounts, as in the external sources the average number of recipients is reported per year, while EUROMOD captures all instances within the year. It is worth mentioning that the number of instances of the contributory family benefits we model in the base year closely matches that as reported in SILC. Despite of the fixed number of children in the dataset we use for simulations across year, we also capture a decrease in the number of eligible recipients of maternity (paternity) benefits between 2009-2013 as the eligibility rules were tighten.

The recipients' ratio for unemployment benefits is highly under-estimated, which is especially strange for the base year data (2009 income) when unemployment rate was at its record levels. The aggregate amounts of social assistance and unemployment benefits presented in the next table make it plausible that this was due to misreporting of social assistance and unemployment benefits by the respondents (see the discussion below). In the later years, the number of the unemployment benefit recipients in the baseline EUROMOD results remains constant and does not reflect the changes in the labour market (see Section 4.1.8 for validation of unemployment benefits including employment adjustments).

The number of payers of the personal income tax is over-estimated by 11-15% comparing with administrative statistics in 2009-2012. The same applies to social insurance contributions, though the over-estimation is higher (25-35%). The latter is consistent with the over-estimation of the number of recipients of employment income in EUROMOD. The gap between the number of taxpayers compared to those paying social insurance contributions in the simulated data also points towards the fact that there is a number of observations in the EU-SILC based data with short spells of employment (with taxable income not more than the tax allowance). Over-estimation in the number of tax payers and tax receipts is also related to tax evasion issues that are currently not modelled for Lithuania in EUROMOD.

There is no proper administrative data on the number of self-employed persons who do not have business certificates, thus the number will be validated against statistics on aggregated amounts only. The same may be said about the credited contributions. The improvement for the ratios of tax and contribution payers emerges when adjusting for labour market changes (see Section 4.1.8).

When validating aggregated amounts of the simulated benefits (see Table 4.7) it can be noticed that the closest match with the external data is for birth grant (ratios range from 0.91 till 0.97). Child benefits are well in line with external statistics in the base year and we capture a drop in the aggregate expenditure on child benefits well in 2010 when the means test was introduced. However between 2010 and 2013 we model relatively stable expenditure, while the actual number declines. That may be both due to a behavioural response to means testing and slight drop in the fertility rates. Pregnancy grants are under-estimated for all years similarly to the number of recipients (ratios range from 0.55 till 0.72), though their amount makes a minor part of the non-contributory benefits.

The ratios of simulated contributory benefits' amounts are rather in line with external statistics for maternity (paternity) benefits (ratios ranging from 0.98 in 2009 to 1.1 in 2011). Maternity benefits are strongly under-estimated in 2009 (ratio is equal to 0.7) however ratios increase for

the following years in line with the changes in the reciprocity ratio of this benefit. Meanwhile aggregate amounts for paternity benefits are strongly over-estimated. The ratio increases from 1.38 in 2009 to 1.63 in 2012. This discrepancy most likely is due to 100% take-up rates assumption.

The total aggregate amount for social assistance and unemployment benefits in EUROMOD is miscalculated due to the poor quality of the data. As unemployment benefits are modelled partially in EUROMOD based on their reported receipt in the data, we end up under-estimating it strongly. As it was shown in the previous table, the number of unemployment benefits reported in SILC in 2009 is low, despite of the high unemployment rates. It is feasible that respondent mis-reported their unemployment benefits as social assistance. In EUROMOD social assistance is thus over-estimated. Over-estimation may also be due to 100% take-up rates assumption and possibly some bias in calculation of benefits. As the baseline EUROMOD results do not capture changes in employment and unemployment, we keep under-estimating total receipt of unemployment benefits. A sharp increase in the receipt of social assistance brings EUROMOD closer to external estimates.

The aggregate amount of taxes and employee or employer social insurance contributions are over-estimated in EUROMOD similarly to the numbers of tax payers. Employee or employer social insurance contributions and personal income tax show the closest match, with a discrepancy of around 15 percent across the years. This again may be due to tax evasion issues. Contributions of self-employed are over-estimated similarly to the number of self-employed (by around 20%) in the base year, however in 2010-2012 we do not capture a sharp fall in self-employment contributions for the self-employed shown by the externals and end up over-estimating social insurance contributions paid by the self-employed by more than twice. This may be due to economic crisis as far less people were self-employed (as shown in the Table 4.2) also due to behavioural changes as rules for taxation and estimation of social insurance contributions for the self-employed was reformed within the period.

4.1.4 Income distribution

All income distribution results presented here are computed for individuals according to their household disposable income (HDI) equalised 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.

4.1.5 Income inequality

Note: Please see Annex I for tables.

Here and below we validate how EUROMOD tracks the changes in income distribution and poverty compare to EU-SILC throughout the years. It should however be noted that there was a structural break in Lithuanian EU-SILC series in 2012 data (2011 income). Estimates for 2011 SILC (2010 income) were also re-calculated by Eurostat⁵⁶. Thus since 2011 data on income inequality and poverty is not comparable with the information from the previous years. There were also methodological changes to the Lithuanian EU-SILC within the period as the information from the registers and administrative sources was increasingly used instead of or complimentary to the information on benefits, original income and taxes collected during the survey.

⁵⁶ Since 2011 the number of inhabitants used for the production of statistical information is recalculated with the reference to 2011 Lithuanian Census data.

Table 4.8 shows that the income decile shares in 2009-2011 in EUROMOD are well in line with the EUROSTAT statistics, except of the bottom decile (which is over-estimated by 20 percent in EUROMOD in 2009). The latter is due to recoding of the negative self-employment income to zero in EUROMOD and as full benefit take-up is modelled. In 2010 EUROMOD data slightly under-estimates decile shares with the exception of the ninth and the tenth deciles (ratio for the former is 1.01 while for the latter 1.11). For the year of 2011 the under-estimation is higher for almost all deciles, in particular for the first one (ratio is 0.78).

The quintile ratio is under-estimated in EUROMOD for 2009 (ratio 0.88) and over-estimated afterwards (ratio 1.14 in 2010 and 1.27 in 2011). Gini coefficients are better aligned both in the baseline and consequent years. In 2009-2010 we find a close match with the EUROSTAT data for mean disposable income (ratios are from 0.98 to 1.03), while the difference in 2011 is around 7 percent. Median income is well aligned in both 2009 and 2010, while under-estimation increases in 2011 (around 11 percent). The growth in both mean and median was of around 12.5% as indicated by the EU-SILC data. Despite of the resumed economic growth in Lithuania we believe this jump is to a large extent explained by the break in the series (decrease in the population number), rather than actual economic factors. On the other hand the growth rate between 2010-2011 in mean and median income in the baseline EURMOD is probably under-estimated (at around 2.5%) as positive changes in the labour market are not modelled (see section 4.1.8).

4.1.6 Poverty rates

Note: Please see Annex I for tables.

Table 4.9 shows that at-risk of poverty rates at the 60% and 70% of the median decomposed by age and gender are well in line with those reported by EUROSTAT for 2009-2010. Ratios are more misaligned when using lower at risk of poverty lines (40% and 50% of median household disposable income). In 2011, due to a break in the EU-SILC series, we see a different situation with an expectedly poorer fit between EUROMOD and EU-SILC. The discrepancy is again higher for the lower poverty thresholds. The poor fit between EU-SILC and EUROMOD for 2011 is mainly due to the fact that median income has increased by around 12.5% in the EU-SILC between 2010 and 2011 – a jump which to a major extent can be attributed to the structural break in the series mentioned above. Poverty rates at the lower poverty risk thresholds are under-estimated in EUROMOD due to an assumption of the full benefit take-up and recalculation of the negative self-employment income to zero.

Decomposition of at-risk of poverty level by age (using 60% of median household disposable income poverty line) shows stronger under-estimation within the age group of 65+ years old (ratio 0.93 in 2010, 0.87 in 2010). We however capture poverty risk levels relatively well for the prime age population, children and youth. A decrease in the poverty risk levels from 22.8% in 2009 to 18.7% in 2010 among the population group around the pension age (50-64) is not captured in EUROMOD. This may be due to behavioural changes which are not modelled in EUROMOD, such as retirement and early-retirement decisions. Early retirement pensions are also strongly under-represented in 2010 EU-SILC as it was mentioned when validating pensions. Other discrepancies noticed for 2009 and 2010 may be due to simulation or survey errors, or the labour market changes; as for 2011 it is mainly the result of a break in external statistics (the discontinuation of time series data).

4.1.7 Validation of minimum wage

Note: Please see Annex I for tables.

In this section we give a brief overview of the impact of the minimum wage policy on income, taxes, social contributions, social assistance benefits, inequality and poverty rates. It should be noted, that the minimum wage policy is switched off in the baseline scenario. Imposing minimum wage increases the aggregate amounts of disposable income, gross earnings of employees, income tax and employee social insurance contributions only marginally in a similar magnitude, from 0.1% to 0.2% across the years (see Table 4.10). Minimum wage policy has a stronger effect on social assistance benefits of a magnitude of around 10% due to means testing. There is also a marginal impact on inequality (inequality is lower with the minimum wage policy enforced). The impact on at-risk of poverty rate (using the line of 60% median HDI) is also slightly positive (poverty risk decreases) except of 2011.

4.1.8 Validation of employment adjustments

Note: Please see Annex I for tables.

Table 4.11 shows how employment adjustments compare to the baseline scenario. Changes in employment are modelled in relative terms based on the changes observed in the aggregate LFS statistics within 18 age-sex-education groups. Only net transitions to/from employment within each group are modelled. For more information on employment adjustments see Navicke et al. (2013). Employment adjustments are implemented in EUROMOD as an add-on which can be available on request.

As it was mentioned when validating benefits in EUROMOD towards external statistics, the number of recipients of unemployment benefits in 2010 EU-SILC is way below the numbers shown in the administrative sources. As we adjust for changes in employment in relative terms, the gap between the two estimates and the aggregate amount of unemployment benefits remains. Similar is true for other indicators in the Table 4.11.

Looking at the relative changes, we see that the adjustments help to capture a drop in employment and increase in unemployment in 2010 and the opposite dynamics thereafter. The effect on the aggregate disposable income and total gross employment income is moderate. Higher effect observed for the reciprocity of social assistance and unemployment benefits. The Gini coefficient and the total at-risk-of-poverty rate are affected only marginally within the period. Exception is the total poverty risk rate in 2013, when employment adjustments result in about 1 p.p. decrease in poverty risk caused by an improving situation within the prime-age population group as the economy recovers.

4.1.9 Summary of “health warnings”

In conclusion, the following major “health warnings” should be taken into account when using Lithuanian EUROMOD module and the underlying micro-data:

- The EU-SILC (Lithuanian part) is calibrated on a limited number of dimensions: residence area (7 groups), age (17 groups) and gender. No calibration is done towards external income aggregates. Therefore, reciprocity and aggregate amounts for the major income sources may not match between EU-SILC and external aggregates. Analysis on the benefits/taxes/contributions to/by smaller population groups should be done with care due to issues of representativeness.
- As the time series were broken (discontinued), since 2011 data on income inequality and poverty is not comparable with the information from the previous years. Since 2011, the

number of inhabitants used for the production of statistical information is recalculated with the reference to 2011 Lithuanian Census data.

- The default assumption in EUROMOD is full benefit take-up and full compliance with taxes and contributions. Baseline scenario does not include any employment adjustments.
- In the case of simulating a policy year more recent than the income reference period for the underlying input dataset, non-simulated monetary variables are up-rated using income-specific updating factors, whereas demographic and socio-economic status variables remain constant.
- In the baseline scenario the gross-earnings in EUROMOD are quite closely in line with external statistics in 2009-2010 (ratio 0.92) and under-estimated by around 12 percent in 2011 and 2012. In case of personal income tax, is it over-estimated by around 15 percent. Partially, over-estimation could be related to EUROMOD's assumption of full tax compliance, inability to capture tax allowances of diverse population subgroups (i.e. based on disability degree), most of the tax deductibles cannot be captured within EUROMOD.
- Amounts of social contributions of employees are over-estimated to a similar degree as taxes in EUROMOD (by around 15 percent) and for similar reasons. Amounts of self-employed contributions are highly over-estimated (more than twice for 2010-2012), which may be due to different reasons: changes in the number of self-employed, the quality of reported self-employment income in EU-SILC, behavioural response to the reforms of taxation for self-employment income within the period, etc.
- Major aggregate benefit categories are difficult to validate as they consist of diverse individual components and are often constructed in line with the legal retirement age.
- A number of non-simulated benefits are under-reported. Sickness benefits should be treated with extra caution as the aggregate amounts in EUROMOD do not capture structural changes made to this type of benefits in 2010, thus resulting in over-estimation for 2010-2012.
- Social benefit, a means tested benefit, tends to be over-simulated in EUROMOD due to a full take-up assumption and difficulties in simulating assets' means tests using UDB SILC micro-data.

References

1. EUROSTAT (2011). Datasets: <http://epp.eurostat.ec.europa.eu/>
2. Ivaskaite-Tamosiune, Romas Lazutka and Lina Salanauskaite (2010). *Lithuania 2005-2008*, EUROMOD Country Report, University of Essex.
3. National Health Insurance Fund under the Ministry of Health. Annual Reports: <http://www.vlk.lt/>
4. OECD (2008). *International Migration Outlook 2008*. Paris, OECD.
5. State Social Insurance Fund of the Republic of Lithuania (2011). *Statistical Data*: <http://www.sodra.lt/index.php?cid=280>
6. Statistics Lithuania (2008). *2007 m. Žemės Ūkio Struktūros Tyrimo Rezultatai - Results of The Farm Structure Survey 2007 in Lithuania*. Vilnius, Statistics Lithuania.
7. Statistics Lithuania (2013). Datasets: <http://www.stat.gov.lt>
8. Statistics Lithuania (2013). *Gyventojų Pajamos ir Gyvenimo Sąlygos - Income and Living Conditions*. Vilnius, Statistics Lithuania.
9. Statistics Lithuania (2012). *Lietuvos socialinė apsauga – Lithuanian Social Insurance*. http://www.stat.gov.lt/lt/catalog/download_release/

10. Verbist, G. (2004). *Redistributive effect and progressivity of taxes. An International Comparison across the EU using EUROMOD*. EUROMOD Working Paper No. EM5/04.
11. Navicke J., Rastrigina, O., Sutherland, H. (2013). Using EUROMOD to “nowcast” poverty risk in the European Union, Eurostat Methodologies and Working papers series. http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-13-010/EN/KS-RA-13-010-EN.PDF

On-line legislation (in Lithuanian): http://www3.lrs.lt/dokpaieska/forma_e.htm, www.sodra.lt, www.ldb.lt, www.socmin.lt.

ANNEX I: VALIDATION TABLES

Table 4.1 Number of employed & unemployed, thousands

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Employed (n)	1,417	1,417	1,417	1,417	1,417	1,416	1,344	1,257	1,279	100%	105%	113%	111%
Unemployed (n)	265	265	265	265	265	225	291	226	195	118%	91%	117%	136%

Notes: Number of employed and unemployed is computed based on months in employment/unemployment. Numbers computed as averages of monthly data over the year. Sources: Statistics Lithuania (LFS): <http://db1.stat.gov.lt/statbank/default.asp?w=1280> (M3030902: Darbo jėga, užimtumas ir nedarbas)

Table 4.2 Market Income-Number of recipients, thousands (using 2010 data)

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Original income													
Employment	1,521	1,521	1,521	1,521	1,521	1,245	1,112	1,121	1,135	122%	137%	136%	134%
Self-employment	239	239	239	239	239	146	116	115	124	164%	207%	208%	193%
Investment	115	115	115	115	115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Property	64	64	64	64	64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Private pension	9	9	9	9	9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Private transfers	50	50	50	50	50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other	3	3	3	3	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Severance payments	17	17	17	17	17	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
In-kind income													
Fringe benefits	87	87	87	87	87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Imputed housing	1,737	1,737	1,737	1,737	1,737	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Sources: Statistics Lithuania (LFS): <http://db1.stat.gov.lt/statbank/SelectVarVal/Define.asp?Maintable=M3031002&PLanguage=0> (M3031002: Užimtieji)

Table 4.3 Market Income-Aggregate amounts, annual amounts in millions (if not stated otherwise)

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Original income													
Employment	29,701	28,441	29,592	31,036	32,533	32,152	31,249	33,445	35,099	92%	91%	88%	88%
Self-employment	2,892	2,796	2,878	2,987	3,131	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Investment	554	562	585	603	620	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Property	135	137	143	147	151	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Private pension	11	11	12	12	12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Private transfers	204	207	215	222	228	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other	1	1	1	1	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Severance payments	97	93	96	100	105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
In-kind income													
Fringe benefits	201	194	200	208	218	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Imputed housing	6,094	6,173	6,426	6,626	6,811	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Employment (average)	2,064	1,975	2,056	2,154	2,258	2,056	1,988	2,046	2,124	100%	99%	100%	101%

Sources: Statistics Lithuania, (national accounts: employment income; LFS: average employment income (M2010269: Algos ir atlyginimai to meto kainomis pajamų metodu; M3060801); severance payments)

Table 4.4 Non-simulated taxes and benefits-Number of recipients/payers, thousands

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Pensions													
Old-age pension	661	661	661	661	661	679	685	691	688	97%	96%	96%	96%
Disability pension	170	170	170	170	170	198	192	172	169	86%	89%	99%	101%
Survivor's pension	53	53	53	53	53	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Early retirement	0	0	0	0	0	7	9	18	29	6%	5%	2%	1%
Not simulated benefits													
Guardianship benefit	6	6	6	6	6	12	13	12	12	51%	51%	51%	53%
Education allowances	40	40	40	40	40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Compensation for utilities	93	93	93	93	93	130	168	221	199	71%	55%	42%	47%
Sickness benefit	387	387	387	387	387	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Municipal and NGO support	3	3	3	3	3	20	28	26	n/a	14%	10%	11%	n/a
Not simulated taxes													
Property tax	257	257	257	257	257	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes: Number of recipients for old-age and disability benefits is a sum of the number of recipients of non-overlapping types of pensions before and after retirement age: old age benefits include old-age social insurance, state assistance benefits and work incapacity/invalidity pensions (before retirement age); disability benefits include work incapacity/invalidity, state social assistance pension (before retirement age) and social assistance pensions for children with disability. Number on municipal and NGO support in external statistics refer to individual recipients.

Sources: Statistics Lithuania (*Rodiklių duomenų bazė, Gyventojai ir socialinė statistika*)

<http://db1.stat.gov.lt/statbank/SelectVarVal/Define.asp?Maintable=M3161301&PLanguage=0> , SODRA (“Skaičiai ir faktai 2005-2009), SOCMIN (“Piniginės socialinės paramos gavėjai ir išlaidos 2000-2009 metais”). Pensions: M3160301: Pensijų gavėjų skaičius metų pabaigoje (pagal ESSPROS metodiką)

Šeimoms ir vaikams: <http://www.socmin.lt/index.php?-1166618840>

Table 4.5 Non-simulated taxes and benefits-Aggregate amounts, annual amounts in millions

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Pensions													
Old-age pension	7,040	6,561	6,561	7,040	7,074	7,497	6,911	6,973	n/a	94%	95%	94%	n/a
Disability pension	1,130	1,088	1,088	1,130	1,123	1,617	1,468	1,392	n/a	70%	74%	78%	n/a
Survivor's pension	135	126	126	134	135	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Early retirement	4	4	4	4	4	47	65	86	96	8%	6%	4%	4%
Not simulated benefits													
Guardianship benefit	49	49	49	49	49	68	69	69	65	72%	71%	71%	76%
Education allowances	54	54	54	54	54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Compensation for utilities	65	75	69	91	93	79	117	139	170	82%	64%	50%	54%
Sickness benefit	662	640	659	684	717	630	330	351	394	105%	194%	187%	174%
Municipal and NGO support	2	2	2	2	2	5	5	n/a	n/a	36%	34%	n/a	n/a
Not simulated taxes													
Property tax	52	53	55	57	58	55	52	56	58	95%	101%	98%	98%

Notes: Aggregate amounts of old-age benefits include state social insurance old-age and work incapacity/invalidity pensions, state social assistance pensions, state pensions and care allowances (all after retirement age), excludes survivor pensions after retirement age. Aggregate amounts of disability benefits include expenditure on state social insurance work incapacity/invalidity pensions and state social assistance benefits/pensions before retirement age, nursing and care compensations (care allowance) for working age recipients, compensations for loss of work capacity, social assistance pension for disabled children. Information on “municipal & NGO support” from external sources refers to municipal support only. Property taxes include land tax for both natural persons and legal entities.

Sources: Statistics Lithuania (*Rodiklių duomenų bazė, Gyventojai ir socialinė statistika, Socialinė apsauga Lietuvoje*), SODRA (“Skaičiai ir faktai 2005-2009”), SOCMIN (“Piniginės socialinės paramos gavėjai ir išlaidos 2000-2009 metais” <http://www.socmin.lt/index.php?-802624691>), Tax Inspectorate.

Table 4.6 Simulated taxes and benefits-Number of recipients/ payers, thousands

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Simulated benefits													
Child allowance	375	99	98	96	95	495	152	117	107	76%	65%	83%	90%
Birth grant	31	31	31	31	31	34	34	33	32	90%	91%	94%	97%
Maternity (paternity) benefit	79	77	77	71	71	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Maternity benefit	26	26	26	26	26	30	24	20	19	88%	109%	130%	135%
Pregnancy grant	5	5	5	5	5	7	8	9	8	71%	57%	55%	57%
Paternity benefit	21	21	21	21	21	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Social assistance	99	102	99	96	94	74	181	222	222	135%	56%	45%	43%
Unemployment benefit	59	59	59	59	59	199	188	136	n/a	30%	31%	43%	n/a
Taxes and SIC													
Income tax	1,439	1,425	1,438	1,446	1,461	1,261	1,228	1,272	1,307	114%	116%	113%	111%
Employee contributions	1,521	1,521	1,521	1,521	1,521	1,195	1,130	1,176	1,219	127%	135%	129%	125%
Self-employed contributions	239	239	239	239	239	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Employer contributions	1,521	1,521	1,521	1,521	1,521	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Credited contributions	1,567	1,568	1,568	1,571	1,571	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes: Figures reflect the final tax liability in both EUROMOD and external statistics data.

Sources: Ministry of Social Security and Labour (Piniginės socialinės paramos gavėjai ir išlaidos 2000-2013 m.), Statistics Lithuania (<http://db1.stat.gov.lt/statbank/SelectVarVal/Define.asp?Maintable=M3031002&PLanguage=0>), Ministry of Finance: [http://www.finmin.lt/finmin.lt/failai/nacionalinio_biudzeto_surinkimas/ketv/Ataskaita_2012_metine .pdf](http://www.finmin.lt/finmin.lt/failai/nacionalinio_biudzeto_surinkimas/ketv/Ataskaita_2012_metine.pdf)

Table 4.7 Simulated taxes and benefits- Aggregate amounts, annual amounts in millions

	EUROMOD (I)					External statistics (II)				Ratio (I/II)			
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2009	2010	2011	2012
Simulated benefits													
Child allowance	480	117	116	119	118	469	127	93	87	102%	92%	125%	136%
Birth grant	44	44	44	44	44	47	49	47	46	94%	91%	94%	97%
Maternity (paternity) benefit	1,168	1,104	1,011	761	794	1,198	1,166	910	690	98%	95%	111%	110%
Maternity benefit	182	173	178	186	194	259	198	160	159	70%	88%	111%	117%
Pregnancy grant	1	1	1	1	1	2	2	2	2	72%	57%	55%	57%
Paternity benefit	47	44	44	46	48	34	28	27	28	138%	157%	166%	163%
Social assistance	429	434	421	372	358	191	511	612	599	225%	85%	69%	62%
Unemployment benefit	149	134	133	134	135	539	395	241	n/a	28%	34%	55%	n/a
Taxes and SIC													
Income tax	4,336	4,105	4,294	4,510	4,785	3,789	3,471	3,773	4,004	114%	118%	114%	113%
Employee contributions	2,673	2,560	2,663	2,793	2,928	2,367	2,213	2,349	2,474	113%	116%	113%	118%
Self-employed contributions	435	443	488	509	535	364	161	172	187	120%	274%	284%	273%
Employer contributions	9,237	8,845	9,203	9,683	10,150	8,345	7,609	8,118	8,563	111%	116%	113%	113%
Credited contributions	991	1,212	1,194	1,191	1,204	1,166	1,600	n/a	n/a	86%	76%	n/a	n/a

Notes: * Self-employment contributions in 2010 include contributions of people who perform individual activity (*lsep=1*) and owners of individual enterprises (*lseor=1*) ** Credited compulsory health insurance contributions simulated in EUROMOD starting from 2009.

Sources: Ministry of Social Security and Labour (Piniginės socialinės paramos gavėjai ir išlaidos 2000-20013 m.), Statistics Lithuania, National Health Insurance Fund under the Ministry of Health, Ministry of Finance: http://www.finmin.lt/finmin.lt/failai/nacionalinio_biudzeto_surinkimas/ketv/2011_12_men_LT.pdf; http://www.finmin.lt/web/finmin/auktualus_duomenys/biudzeto_pajamos/nacionalinis_biudzetas

Table 4.8 Income distribution

	EUROMOD					External			Ratios		
	2009	2010	2011	2012	2013	2009	2010	2011*	2009	2010	2011*
Decile shares, %											
1	2.27	2.13	2.10	2.10	2.06	1.90	2.30	2.70	120%	93%	78%
2	4.33	4.38	4.28	4.15	4.08	4.10	4.50	4.70	106%	97%	91%
3	5.35	5.28	5.26	5.19	5.13	5.40	5.80	5.70	99%	91%	92%
4	6.44	6.40	6.36	6.31	6.26	6.40	6.70	6.90	101%	95%	92%
5	7.61	7.59	7.49	7.49	7.48	7.60	8.00	7.80	100%	95%	96%
6	8.72	8.64	8.65	8.71	8.62	8.60	9.20	9.30	101%	94%	93%
7	10.27	10.31	10.28	10.18	10.19	10.10	10.80	10.80	102%	95%	95%
8	12.64	12.39	12.45	12.52	12.52	12.40	12.60	12.60	102%	98%	99%
9	15.65	15.85	15.82	15.85	15.96	16.10	15.70	15.60	97%	101%	101%
10	26.72	27.04	27.30	27.50	27.70	27.40	24.40	23.90	98%	111%	114%
Mean income (equivalised)											
total population	4,921	4,643	4,754	4,938	5,113	5,017	4,503	5,124	98%	103%	93%
men	5,042	4,761	4,880	5,061	5,244	5,160	4,630	5,295	98%	103%	92%
women	4,816	4,542	4,646	4,833	4,999	4,894	4,395	4,978	98%	103%	93%
Median income (equivalised)											
total population	4,003	3,770	3,846	3,995	4,108	4,059	3,857	4,337	99%	98%	89%
men	4,154	3,888	3,981	4,130	4,253	4,178	4,005	4,599	99%	97%	87%
women	3,880	3,632	3,695	3,848	3,961	3,906	3,742	4,168	99%	97%	89%
Income quintile ratio (S80/S20)	6.42	6.59	6.75	6.93	7.11	7.30	5.80	5.30	88%	114%	127%
Gini Coefficient	35.70	36.16	36.50	36.84	37.24	36.90	33.00	32.00	97%	110%	114%

Notes: Based on household disposable income (HDI) equalised 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.

External EUROSTAT EU-SILC data lagged by one year to refer to the income data reference year. EUROMOD data refers to income data reference period.

*As the time series were broken (discontinued), since 2011 data on income inequality and poverty is not comparable with the information from the previous years. Since 2011, the number of inhabitants used for the production of statistical information is recalculated with the reference to 2011 Lithuanian Census data.

Sources: EUROSTAT

Table 4.9 At risk of poverty rates by gender and age, percent

	EUROMOD (I)					External statistics (II)			Ratio (I/II)		
	2009	2010	2011	2012	2013	2009	2010	2011*	2009	2010	2011*
40% median HDI											
Total	8.36	8.85	8.82	9.06	9.14	9.80	8.30	6.50	85%	107%	136%
men	9.50	9.88	9.89	10.12	10.17	11.20	8.20	6.60	85%	120%	150%
women	7.37	7.97	7.90	8.15	8.25	8.60	8.30	6.40	86%	96%	123%
50% median HDI											
Total	12.64	12.76	13.03	13.83	14.07	14.50	13.00	11.30	87%	98%	115%
men	13.59	13.81	13.93	14.82	14.95	15.50	13.30	11.70	88%	104%	119%
women	11.83	11.85	12.25	12.99	13.30	13.70	12.80	11.00	86%	93%	111%
60% median HDI											
Total	20.32	19.86	20.45	21.88	22.09	20.20	19.20	18.60	101%	103%	110%
men	20.53	20.06	20.71	22.46	22.63	20.70	19.10	18.10	99%	105%	114%
women	20.14	19.68	20.24	21.38	21.63	19.80	19.30	19.00	102%	102%	107%
70% median HDI											
Total	28.07	28.13	29.13	29.23	29.31	27.20	27.40	27.00	103%	103%	108%
men	27.16	27.42	28.14	28.57	28.42	26.30	26.50	25.20	103%	103%	112%
women	28.86	28.74	29.99	29.79	30.07	27.90	28.20	28.60	103%	102%	105%
60% median HDI											
0-17 years	23.98	23.76	25.33	29.14	29.60	23.30	25.20	20.80	103%	94%	122%
18-24 years	24.11	22.92	22.12	24.29	23.37	22.70	24.40	20.20	106%	94%	110%
25-49 years	20.66	20.45	21.03	22.53	22.41	20.90	19.70	16.90	99%	104%	124%
50-64 years	22.98	22.69	22.93	22.52	23.20	22.80	18.70	18.60	101%	121%	123%
65+ years	9.46	8.46	9.40	9.37	10.37	10.20	9.70	18.70	93%	87%	50%

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.

External EUROSTAT EU-SILC data lagged by one year to refer to the income data reference year. EUROMOD data refers to income data reference period.

*As the time series were broken (discontinued), since 2011 data on income inequality and poverty is not comparable with the information from the previous years. Since 2011, the number of inhabitants used for the production of statistical information is recalculated with the reference to 2011 Lithuanian Census data. Sources: EUROSTAT

Table 4.10 Impact of minimum wage (annual monetary amounts in millions)

	EUROMOD (baseline)					EUROMOD (with minimum wage)					Ratio (I/II)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Disposable income (total)	37,530	35,454	36,289	37,793	39,091	37,774	35,722	36,529	38,011	39,507	99%	99%	99%	99%	99%
Gross employee earnings (total)	29,701	28,441	29,592	31,036	32,533	30,027	28,804	29,923	31,337	33,106	99%	99%	99%	99%	98%
Social assistance (total)	429	434	421	372	358	390	392	383	341	315	110%	111%	110%	109%	114%
Income tax (total)	4,336	4,105	4,294	4,510	4,785	4,372	4,147	4,332	4,543	4,866	99%	99%	99%	99%	98%
Employee SICs (total)	2,673	2,560	2,663	2,793	2,928	2,702	2,592	2,693	2,820	2,980	99%	99%	99%	99%	98%
Gini Coefficient (Eq HDI)	35.70	36.16	36.50	36.84	37.24	35.46	35.89	36.26	36.62	36.83	101%	101%	101%	101%	101%
At poverty risk (60% median HDI)	20.32	19.86	20.45	21.88	22.09	20.23	19.65	20.89	21.76	21.95	100%	101%	98%	101%	101%

Sources: EUROMOD data

Table 4.11 Impact of employment adjustments compared to baseline scenario (annual monetary amounts in millions, recipients in thous.)

	EUROMOD (baseline)					EUROMOD (labour market adjustments)					Ratio				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Employed (n)	1,417	1,417	1,417	1,417	1,417	1,417	1,356	1,393	1,422	1,439	100%	104%	102%	100%	98%
Unemployed (n)	265	265	265	265	265	265	326	290	264	249	100%	81%	91%	100%	107%
Disposable income (total)	37,530	35,454	36,289	37,793	39,091	37,530	34,813	36,134	38,104	39,636	100%	102%	100%	99%	99%
Gross employee earnings (total)	29,701	28,441	29,592	31,036	32,533	29,701	27,690	29,527	31,516	33,349	100%	103%	100%	98%	98%
Social assistance (n)	99	102	99	96	94	99	115	101	93	89	100%	89%	98%	102%	105%
Social assistance (total)	429	434	421	372	358	429	491	429	362	327	100%	88%	98%	103%	109%
Unemployment benefit (n)	59	59	59	59	59	59	59	42	42	41	100%	100%	139%	142%	145%
Unemployment benefit (total)	149	134	133	134	135	149	158	106	100	96	100%	85%	126%	133%	140%
Income tax (total)	4,336	4,105	4,294	4,510	4,785	4,336	4,022	4,294	4,587	4,902	100%	102%	100%	98%	98%
Employee SICs (total)	2,673	2,560	2,663	2,793	2,928	2,673	2,492	2,657	2,836	3,001	100%	103%	100%	98%	98%
Gini Coefficient (Eq HDI)	35.70	36.16	36.50	36.84	37.24	35.70	36.95	36.80	36.74	36.76	100%	98%	99%	100%	101%
At poverty risk (60% median HDI)	20.32	19.86	20.45	21.88	22.09	20.32	19.69	20.17	21.42	21.13	100%	101%	101%	102%	105%

Notes: Changes in employment are modelled in relative terms; net transitions to or from employment within each of the 18 age/sex/education groups are modelled.

Sources: EUROMOD

ANNEX II: RECALCULATIONS OF PENSIONS

Recalculation and payment of state social insurance pensions after 01.01.2010

The Provisional Law on Recalculation and Payment of Social Benefits of the Republic of Lithuania as of December 9, 2009 came into effect on January 1, 2010 (hereinafter – the Provisional Law; Official Gazette, 2009, No.152-6820). This law establishes, among others, the procedure for recalculation of state social insurance pensions and payment of these pensions when a person has the insured income and/or works on a self-employment basis.

The following state social insurance pensions shall be recalculated:

- Old age pensions exceeding the marginal amount of the state social insurance pension, i.e. 650 LTL;
- Early old-age pensions, exceeding the marginal amount of the state social insurance pension, i.e. 650 LTL;
- Work incapacity pensions awarded to individuals who have lost 60-70 per cent of capacity for work (Group II disability pensions), exceeding the marginal amount of the state social insurance pension, i.e. 650 LTL;
- Work incapacity pensions awarded to individuals who have lost 45-55 per cent of capacity for work (Group III disability pensions), exceeding the marginal amount of the state social insurance pension, i.e. 325 LTL;
- Pensions for the time served exceeding the marginal amount of the state social insurance pension, i.e. 650 LTL;
- Orphan's (loss of breadwinner) pension which amount per each orphan exceeds half the marginal amount of the state social insurance pension, i.e. 325 LTL;
- Survivors' pension, not depending on its amount.

Cuts on state pensions are not discussed here in detail as those were not explicitly simulated in Euromod, although most of them were implicitly recalculated.⁵⁷ More details on the structural cuts are provided by the State Social Insurance Fund Board of the Republic of Lithuania and can be found in English at: <http://www.sodra.lt/index.php?cid=1945>.

The cuts are of progressive nature and have different effect on the different groups of pensioners. Therefore they are simulated in EUROMOD instead of the regular updating procedure for non-simulated benefits. The structural cuts for the following categories of pensions were simulated in EUROMOD for 2010-2011 and included into the baseline (policy sheet *boa_lt*): old-age benefits (*boa*), early retirement pension (*byr*), disability benefits (*bdi*), orphan's (*bsu*). The above mentioned categories were updated up to 2009 using regular updating procedure and simulated thereafter.

The main health warnings for the implementation of the reform in EUROMOD are:

⁵⁷ Recalculated state pensions as indicated in the Temporary Law include the following major groups: *State pensions of degree one or two of the Republic of Lithuania, State pensions for victims, State pensions for judges, State Pensions for officers and soldiers, State pensions for scientists, State loss of breadwinner's pensions.* According to the Temporary Law state pensions were recalculated in most cases in accordance to rules and marginal amounts also applicable for state social insurance pensions. Therefore and due to the fact that state pensions are aggregated together with social insurance pensions in the EUROMOD input database, they were recalculated implicitly, structural cuts being equally applied on all types of pensions within the same aggregated category of benefits/pensions if not indicated otherwise.

- Old age and state pensions are aggregated in *boa* (although these two types of pensions are recalculated according to different rules); invalidity pensions after the pension age are included into *boa*; the bonus for the length of the service can't be identified and is ignored this in our simulations.
- We disregard the reduction of *boa* pensions for those receiving insurable income
- There is no information on a degree of work incapacity in the input database. Those were imputed by differentiating the marginal average sizes of the three types of work incapacity/disability pensions and by ratios of the three categories as indicated by external statistics.
- Survivor and orphan pensions are aggregated in the input database and were differentiated according to the age of recipients.
- All indicated categories of pensions in EUROMOD are aggregate categories. The structural cuts were equally applied on all types of benefits within the same category if not indicated otherwise.

Since 2012 recalculation of state insurance pensions was cancelled, although recalculation rules still applied on state pensions. State pensions are not identified in Euromod and therefore not recalculated.

ANNEX III: UPRATING FACTORS

	...	LT_2009	LT_2010	LT_2011	LT_2012	LT_2013	Comment
factor_name	1	f_default	f_default	f_default	f_default	f_default	
factor_value	1	1.0000	1.0130	1.0545	1.0872	1.1177	Statistics Lithuania / Average annual change in prices of consumer goods and services by Classification of Individual Consumption by Purpose (COICOP) and month (M12 data) (M2020104). Forecasted value for 2012 (by Ministry of Finance)
ypp		f_default	f_default	f_default	f_default	f_default	
yds		f_default	f_default	f_default	f_default	f_default	
xhcot		f_default	f_default	f_default	f_default	f_default	
xhcrf		f_default	f_default	f_default	f_default	f_default	
xhcmomi		f_default	f_default	f_default	f_default	f_default	
tpr		f_default	f_default	f_default	f_default	f_default	
ypt		f_default	f_default	f_default	f_default	f_default	
factor_name	2	f_yem	f_yem	f_yem	f_yem	f_yem	
factor_value	2	1.0000	0.9670	0.9951	1.0330	1.0828	"Statistics Lithuania / Average monthly earnings by sector, statistical indicator and year /Whole economy including individual enterprises/Average gross monthly earnings (M3060801). Forecast of Ministry of Finance for 2012 as for the whole economy"
Factor_Condition	3	{lindi = 1}	{lindi = 1}	{lindi = 1}	{lindi = 1}	{lindi = 1}	1: Agriculture and Fishing
yem	3	1	0.9814	1.0167	1.0732	1.1249	Same as f_yem (disaggregation by sector)
Factor_Condition	4	{lindi = 2}	{lindi = 2}	{lindi = 2}	{lindi = 2}	{lindi = 2}	"2: Mining, Manufacturing and Utilities"
yem	4	1.0000	0.9546	1.0012	1.0736	1.1254	Same as f_yem (disaggregation by sector)
Factor_Condition	5	{lindi = 3}	{lindi = 3}	{lindi = 3}	{lindi = 3}	{lindi = 3}	3: Construction
yem	5	1.0000	0.9280	0.9893	1.0258	1.0752	Same as f_yem (disaggregation by sector)
Factor_Condition	6	{lindi = 4}	{lindi = 4}	{lindi = 4}	{lindi = 4}	{lindi = 4}	4: Wholesale and retail trade
yem	6	1.0000	0.9647	0.9916	1.0549	1.1058	Same as f_yem (disaggregation by sector)
Factor_Condition	7	{lindi = 5}	{lindi = 5}	{lindi = 5}	{lindi = 5}	{lindi = 5}	5: Hotels and restaurants
yem	7	1.0000	0.9628	0.9861	1.0208	1.0700	Same as f_yem (disaggregation by sector)
Factor_Condition	8	{lindi = 6}	{lindi = 6}	{lindi = 6}	{lindi = 6}	{lindi = 6}	6: Transport and communication
yem	8	1.0000	1.0074	1.0980	1.1635	1.2196	Same as f_yem (disaggregation by sector)
Factor_Condition	9	{lindi = 7}	{lindi = 7}	{lindi = 7}	{lindi = 7}	{lindi = 7}	7: Financial intermediation
yem	9	1.0000	0.9442	0.9735	1.0283	1.0778	Same as f_yem (disaggregation by sector)
Factor_Condition	10	{lindi = 8}	{lindi = 8}	{lindi = 8}	{lindi = 8}	{lindi = 8}	8: Real estate and business activities
yem	10	1.0000	0.9463	0.9734	1.0068	1.0553	Same as f_yem (disaggregation by sector)
Factor_Condition	11	{lindi = 9}	{lindi = 9}	{lindi = 9}	{lindi = 9}	{lindi = 9}	9: Public administration and defence
yem	11	1.0000	0.9413	0.9647	0.9885	1.0361	Same as f_yem (disaggregation by sector)
Factor_Condition	12	{lindi = 10}	{lindi = 10}	{lindi = 10}	{lindi = 10}	{lindi = 10}	10: Education
yem	12	1.0000	0.9461	0.9560	0.9726	1.0195	Same as f_yem (disaggregation by sector)
Factor_Condition	13	{lindi = 11}	{lindi = 11}	{lindi = 11}	{lindi = 11}	{lindi = 11}	11: Health and social work
yem	13	1.0000	0.9552	1.0148	1.0505	1.1012	Same as f_yem (disaggregation by sector)
Factor_Condition	14	{lindi = 12}	{lindi = 12}	{lindi = 12}	{lindi = 12}	{lindi = 12}	12: Other
yem	14	1.0000	0.9674	1.0092	1.0528	1.1036	Same as f_yem (disaggregation by sector)
yem00		f_yem	f_yem	f_yem	f_yem	f_yem	
yivwg		f_yem	f_yem	f_yem	f_yem	f_yem	
yunsv		f_yem	f_yem	f_yem	f_yem	f_yem	
yot		f_yem	f_yem	f_yem	f_yem	f_yem	
xmp		f_yem	f_yem	f_yem	f_yem	f_yem	
xpp		f_yem	f_yem	f_yem	f_yem	f_yem	
tad		f_yem	f_yem	f_yem	f_yem	f_yem	

EUROMOD Country Report – LITHUANIA

	Grp/No	LT_2009	LT_2010	LT_2011	LT_2012	LT_2013	Comment
ydses_o	15	f_default	f_default	f_default	f_default	f_default	
bhl		f_yem	f_yem	f_yem	f_yem	f_yem	
bma		f_yem	f_yem	f_yem	f_yem	f_yem	Note: simulated value used in the output
yempv		1.0000	0.9555	0.9240	0.9508	0.9870	"The same as for yem, but with 1 year lag"
yse		f_yem	f_yem	f_yem	f_yem	f_yem	
yiy		f_default	f_default	f_default	f_default	f_default	
afc		f_default	f_default	f_default	f_default	f_default	
kivho		f_default	f_default	f_default	f_default	f_default	
ypr		f_default	f_default	f_default	f_default	f_default	
amrmv		f_default	f_default	f_default	f_default	f_default	
bed		1.0000	1.0000	1.0000	1.0000	1.0000	"No statutory indexation, no information on average amounts: kept constant"
bfa		1.0000	1.1432	1.1791	1.2048	1.1394	Ministry of Social Security and Labour/Statistics/Recipients and amounts of monetary social assistance/ Benefits for families with children (Ismokos seimoms auginanaioms vaikus)
bho		1.0000	1.1535	1.0620	1.4055	1.4449	Ministry of Social Security and Labour/Statistics/Recipients and amounts of monetary social assistance/ Compensation for utilities (sildymo islaidu ir islaidu vandeniu kompensacijos)
bunct		1.0000	0.8038	0.7931	0.8147	0.8084	Ministry of Social Security and Labour/ Social Reports/ Average social insurance unemployment benefit
bsa00		1.0000	1.0858	1.1997	1.0417	1.0074	Ministry of Social Security and Labour/Statistics/Recipients and amounts of monetary social assistance/ Social assistance benefits (Socialine pasalpa)
bsals		f_default	f_default	f_default	f_default	f_default	Default used
bchor		1	1	1	1	1	Ministry of Social Security and Labour/Statistics/Recipients and amounts of monetary social assistance/ Guardianship benefit (Globos (rupybos) ismoka). Approximated factor as close to 1 in all years.
bdi		1	1	1	1	0.9935	Statistics Lithuania/ Social Protection in Lithuania (2007-2009 catalogues). Kept constant thereafter with structural changes applied for 2010-2011.
boa		1	1	1	1	1.0048	Statistics Lithuania/ Social Protection in Lithuania (2007-2009 catalogues). ; Kept constant thereafter with structural changes applied for 2010-2011.
bsu		1.0000	1.0000	1.0000	0.9911	1.0005	State Social Insurance Fund Board of the Republic of Lithuania/ Statistics/ Survivor and orphan pensions (2007-2009); Kept constant thereafter with structural changes applied for 2010-2011.
byr		1.0000	1.0000	1.0000	1.0488	1.0441	State Social Insurance Fund Board of the Republic of Lithuania/ Statistics/ Early retirement pensions (2007-2009); Kept constant thereafter with structural changes applied for 2010-2011.
aggvar_name	16	bun	bun	bun	bun	bun	aggregate var: bun
aggvar_part	16	bunct	bunct	bunct	bunct	bunct	
aggvar_part	16	byr	byr	byr	byr	byr	
aggvar_part	16	yunsv	yunsv	yunsv	yunsv	yunsv	
aggvar_name	17	bsa	bsa	bsa	bsa	bsa	aggregate var: bsa
aggvar_part	17	bsa00	bsa00	bsa00	bsa00	bsa00	
aggvar_part	17	bsals	bsals	bsals	bsals	bsals	
aggvar_name	18	xhc	xhc	xhc	xhc	xhc	aggregate var: xhc
aggvar_part	18	xhct	xhct	xhct	xhct	xhct	
aggvar_part	18	xhcmomi	xhcmomi	xhcmomi	xhcmomi	xhcmomi	
aggvar_part	18	xhcot	xhcot	xhcot	xhcot	xhcot	