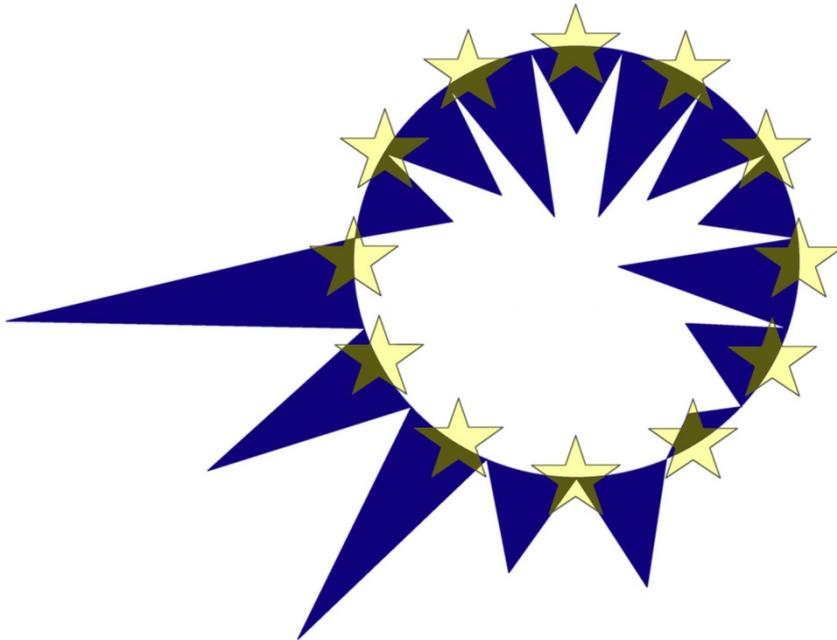


# **EUROMOD**

## **COUNTRY REPORT**



# **CZECH REPUBLIC**

## **(CZ)**

### **2007 – 2012**

**Klára Kalíšková, Daniel Münich and Jan Pavel**

**20/12/2012**



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 2007-2012. 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 coordination assistant: Cara McGenn

EUROMOD developer responsible for Czech Republic: Jekaterina Navicke

National team for Czech Republic: Daniel Münich and Jan Pavel

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

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

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

This programme is managed by the Directorate-General for Employment, social affairs and 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.



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## 1. BASIC INFORMATION

### 1.1 Basic figures

#### Basic figures

	Pop. (m.) <sup>[b]</sup> [A01]	pop. < 18 (%) [I01]	pop. ≥ 65 (%) [I01]	Life expect. Men / women (years) [I16/I17]	Fertility Rate [I10]	Unemp rate <sup>[c]</sup> (ILO)	GDP per head (PPP in CZK) <sup>[c]</sup>	Currency Name	Exch. rate <sup>[a]</sup>
2005	10.2	18.6	14.1	72.9/79.1	1.282	7.9	17,058	CZK	30.030
2006	10.3	18.3	14.3	73.5/79.7	1.328	7.1	18,213	CZK	28.495
2007	10.3	18.0	14.5	73.7/79.9	1.438	5.3	19,949	CZK	28.715
2008	10.4	17.8	14.7	73.9/80.1	1.497	4.4	20,150	CZK	23.895
2009	10.5	17.7	14.9	74.2/80.1	1.492	6.7	19,266	CZK	25.890
2010	10.5	17.5	15.5	74.4/80.6	1.493	7.3	19,438	CZK	25.690
2011	10.5	17.6	15.6	74.7/80.7	1.427	6.7	20,249	CZK	24.345

[a] Euro exchange rate on 30th of June. Czech national Bank

[http://www.cnb.cz/cs/finaneni\\_trhy/devizovy\\_trh/kurzy\\_devizoveho\\_trhu/denni\\_kurz.jsp](http://www.cnb.cz/cs/finaneni_trhy/devizovy_trh/kurzy_devizoveho_trhu/denni_kurz.jsp)

[b] Source: Czech statistical office, Demographic yearbooks, Table A01, I01, I16 and I17

[http://www.czso.cz/csu/2012edicniplan.nsf/engpubl/4019-12-eng\\_r\\_2012](http://www.czso.cz/csu/2012edicniplan.nsf/engpubl/4019-12-eng_r_2012)

[c] Source: Czech statistical office, Macroeconomic indicators

[http://www.czso.cz/eng/redakce.nsf/i/macroeconomic\\_indicators/\\$File/AHLMAKRO.xls](http://www.czso.cz/eng/redakce.nsf/i/macroeconomic_indicators/$File/AHLMAKRO.xls)

#### Tax-benefit system and government budget

	Total general government revenue <sup>[a]</sup> % of GDP	Total tax receipts <sup>[aa]</sup> % of GDP	Total general government expenditure <sup>[c]</sup> % of GDP	Social protection <sup>[b]</sup> % of GDP
2006	41.1	36.7	42.0	18.7
2007	41.8	37.3	41.0	18.6
2008	40.2	35.6	41.1	18.7
2009	40.2	34.5	44.7	20.4
2010	39.3	33.8	43.7	20.1
2011	39.8	34.5	43.0	n.a.

Source: [a] Eurostat (2010) [http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

[a] Economy and finance / National accounts (including GDP) (t\_na) Government statistics (t\_gov) / Annual government finance statistics (t\_gov\_a) / Total general government revenue (tec00021)

[aa] Economy and finance / Government statistics (gov)/ Main national accounts tax aggregates (gov\_a\_tax\_ag)

[b] Population and social conditions / Living conditions and welfare (livcon) / Social protection (spr) / Expenditure: main results [spr\_exp\_sum]

[c] Economy and finance / National accounts (including GDP)/ Annual government finance statistics (gov\_a)/ Government revenue, expenditure and main aggregates (gov\_a\_main)/ UNIT: Percentage of GDP; SECTOR: General government; INDIC\_NA: Total general government expenditure [gov\_a\_main]



## Social protection expenditure by function (as % of GDP)

	Sickness/ health care	Disability	Old age	Survivors	Family/ children	Unempl oyment	Housing	Social exclusion
2005	6.9	1.5	7.2	0.8	1.6	0.8	0.1	0.5
2006	7.0	1.5	7.6	0.8	1.5	0.7	0.1	0.5
2007	6.6	1.6	7.4	0.8	1.5	0.6	0.1	0.5
2008	6.4	1.5	7.6	0.8	1.8	0.7	0.0	0.2
2009	6.4	1.5	8.3	0.8	1.4	1.1	0.1	0.2
2010	6.3	1.5	8.5	0.7	1.3	0.8	0.1	0.2

Source: Eurostat (2010)

[http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database) Items: spr\_exp\_gdp  
Population and social conditions/ Living conditions and welfare (livcon)/ Social protection (spr)/

Taxation and Contributions (as % of total tax & contributions receipts)<sup>21</sup>

	Personal income tax [1111]	Corporate income tax [1112]	Social security contributions		Taxes on goods and services [114]	Other taxes (residual)
			Employees* [1211+1213]	Employers [1212]		
2005	13,3	13,5	16,4	23,8	30,3	2,7
2006	12,4	12,9	12,9	28,9	31,2	1,7
2007	12,2	13,4	12,8	27,9	30,9	2,8
2008	11,1	14,5	12,8	28,3	30,7	2,6
2009	10,9	10,9	13,5	28,9	33,4	2,4
2010	10,8	10,7	12,6	28,9	34,2	2,8
2011	10,8	10,0	12,7	29,0	34,3	3,2

\* Includes self-employed

Source: OECD (2009),

1] Data for 2009 from domestic sources: MF ČR, Domovská stránka > Veřejné finance > Finanční statistika > Vládní finanční statistika > Veřejné rozpočty 2010 - TABULKA 2 – Příjmy,  
[http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/vlad\\_fin\\_stat\\_62902.html](http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/vlad_fin_stat_62902.html)

2] Computed as a share on Taxes [11] and Social contributions [12]  
Numbers in brackets [ ] refer to accounting items.

## 1.2 The tax-benefit system

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

- The tax-benefit system is unified. There are no exceptions.
- The tax system can be generally changed in January each year. Main benefit changes happen at the same time, but may also be implemented in June.
- Until 1995, the statutory pension age was 60 for men and 57 for women with no children, 56 for women who had raised one child, 55 for women with two children, 54 for women with three or four children, and 53 for women with five or more children. The pension age has been increasing by two months for men and four months for women for each year since 1996, and this will continue until the end of 2012. As at 2005, the pension age is 61 years and 8 months for men, 60 years and 4 months for childless women, 59 years and 4 months for women with 1 child, etc.



- Minimum school leaving age is 15; a dependent child is classified as a child that has not yet finished compulsory schooling and until 26 if he or she is training for future employment; or, alternatively, if the child cannot train for future employment because of injury, long-term illness or if the child is not able to work.
- The income tax system is an individual system; however (in 2005-2007) married couples with at least one child all living in the same household may choose to fill out a joint tax return.
- The means-tested benefit system assesses entitlement according to benefit unit income. The benefit unit is the nuclear family - the couple (cohabiting or married) or single adult plus any dependent children.

### 1.3 Social Benefits

Social benefits can be broken down into the following categories:

#### 1.3.1 Social insurance benefits

**Unemployment benefit** is short term benefit, which is available for unemployed individuals actively searching for a job.

**Sickness benefits** create the sickness insurance system which is intended for people in remunerative work, for whom it provides security through financial sickness insurance benefits in cases of so-called short-term social events (temporary inability to work due to an illness, injury or quarantine, caring for a family member, pregnancy and maternity or caring for a child).

**Pension system** contains five types of pensions: old-age pensions, full invalidity pensions, part-invalidity pensions, widow or widower pensions, and orphan pensions.

**Disablement Benefit (*nemocenské dávky*):** this benefit is paid for all days that a person is disabled, but not more than for one year (or at most two years if the person is disabled due to work injury). The amount of the benefit is calculated from the daily benefit base.

**Benefit for Treatment of a Family Member (*ošetřovné*):** this benefit is for treatment of a family member for a person caring for an ill child under ten, or caring for a person over ten if required. The person undergoing treatment must live in the same household as the benefit recipient. The benefit is paid for at most nine days, or at most 16 days if the person caring for a child younger than 10 lives alone with the child in the household.

**Maternity and Pregnancy Benefit (*vyrovnávací příspěvek v těhotenství a v mateřství*):** is paid to women working at a less well-paid position because of her pregnancy or maternity. The benefit is provided from the day she leaves a better-paid position until at most nine months after the birth of her child. The net benefit base is the same as that of disablement benefit for the period after two weeks of illness. The amount of the benefit is calculated as the difference between the net benefit base before and after moving to a less well-paid position.

**Maternity Allowance (*peněžité pomoci v mateřství*):** is available for women who give birth to children and who have paid health insurance for at least 270 days in the prior two years. Eligible entrepreneurs must have paid health insurance for at least 270 days in the last year before the birth. The woman must not have a paid position and may not run her own business. The maternity allowance is paid for maximum of 28 weeks.

Social benefits are not simulated in Euromod because of lack of relevant data, the exception is unemployment benefit that can be partially simulated under a number of assumptions.



### 1.3.2 State social support

- Means-tested
  - **Child allowance:** is basic long-term benefit provided to families with dependent children.
  - **Social allowance:** aims to help families with low incomes to cover the costs of their children's needs.
  - **Housing benefit:** should help households to cover the costs of housing.
- Non-means tested
  - **Parental allowance:** aimed at parents who care in person and on a daily basis for a child up to four years old.
  - **Foster care benefits:** for dependent children placed in foster care. The child continues to be entitled to this allowance even after reaching adulthood, up to a maximum of 26 years of age, provided that they remain a dependent child and live under the same roof as their former foster parent(s).
  - **Funeral grant:** is available to a person arranging a funeral.
  - **Birth grant:** is available to any mother who gives birth to one or more children.

### 1.3.3 Social assistance

**Social necessity benefits:** serve as a last resort. When a net household income including any state social support benefits is less than the family-level MLS, the household is entitled to social necessity benefit.

**Social care benefits** are one-off allowances usually paid to disabled people for specific purposes. For example, these benefits may include specific amounts for homecare services, spa services, increased cost of diabetic food, wheelchair purchase, increased cost for blind or otherwise disabled persons, for reconstruction of houses needed for disabled access, etc.

The system is organized around a key parameter — the so-called minimum living standard (MLS).

- *Scope and scale*



Social benefits: recipients [thousands]

Year	2005	2006	2007	2008	2009	2010	2011
<b>Social Benefits</b>							
Pensions [Tab 4.8]	2 645	2 684	2 719	2 754	2 720	2 819	2 873
Sickness Benefits [13.1]	3 029	2 707	2 727	2 222	1 441	1 324	1 268
Passive employment policy benefits	638	610	559	578	824	n.a.	n.a.
<b>State Social Support</b>							
Child Allowance [Tab 11.1./12]	1 805	1 760	1 670	888	682	529	484
Social Allowance [Tab 11.2/12]	330	297	241	166	147	148	26
Foster Care benefits	7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Housing Benefit [Tab 11.2/12]	262	234	115	86	94	119	n.a.
Commuting Benefit	-	-	-	-	-	-	-
Parental Allowance [Tab 11.2/12]	291	307	339	358	362	337	323
Birth [Tab 11.2]	102	106	114	119	119	117	22
Funeral Grant [Tab 11.2]	107	103	102	14	4	3.3	3
'Crayon' Allowance ('Pastelkovne')	-	65	57	2	-	-	-
<b>Social Assistance</b>							
Other Social Incomes [Tab14.3]	n.a.	n.a.	5	5	8	9	10
Regular Social Assistance Benefits [Tab14.1]	n.a.	169	72	66	72	90	101
Supplement for Housing [Tab14.2]	-	-	25	21	19	23	26
Contribution on social services [Tab14.4]	-	-	260	307	304	310	300

Notes: “-” policy did not exist in that year; n.a. information not available  
 Source: MPSV Yearbooks (Statistická ročenka z oblasti práce a socialních vecí)  
 Regular Social Assistance Benefits – Příspěvek na živobytí  
 Supplement for Housing – Doplátek na bydlení  
 Other Social Incomes – Mimořádná okamžitá pomoc  
 Contribution on social services – Příspěvek na péči



## Social benefits: amounts [million CZK]

Year	2005	2006	2007	2008	2009	2010	2011
<b>Social Benefits</b>							
Pensions [Tab10.1]	243 648	261 464	282 876	305 536	331 705	337 800	359 098
Sickness Benefits [Tab10.1]	31 661	32 774	34 671	31 882	26 033	23 195	21 505
Passive employment policy benefits [Tab10.1]	7 013	7308	7 016	7 115	15 078	13 355	10 349
<b>State Social Support [Tab10.4]</b>							
Child Allowance	11 195	11 033	10 236	6 232	4 736	3 875	3 544
Social Allowance	4 779	4 418	4 607	3 174	2 962	3 117	844
Foster Care benefits	467	585	765	840	921	1 008	1 102
Housing Benefit	4 459	2 287	1 565	1 619	2 280	3 573	4 625
Commuting Benefit		-	-	-	-	-	-
Parental Allowance	12 627	13 526	28 690	28 294	28 585	27 765	25 707
Birth and Funeral Grant	1 429	1591	2 606	1 718	1 695	1 581	307
'Crayon' Allowance ('Pastelkovne')	-	64	57	2	-	-	-
<b>Social Assistance</b>							
Other Social Incomes [Tab 14.3]	4 714	6 266	170	146	249	333	312
Regular Social Assistance Benefits [14.1]	9 575	8 500	2 593	2 176	2 328	2 862	3 820
Supplement for Housing [Tab14.2]	-	-	524	473	512	686	850
Contribution on social services [Tab 14.4]	-	-	14 608	18 253	18 697	19 599	18 084

Notes: “-” policy did not exist in that year; n.a. information not available

Source: MPSV Yearbooks (Statistická ročenka z oblasti práce a socialních vecí)

Regular Social Assistance Benefits – Příspěvek na živobytí

Supplement for Housing – Doplatek na bydlení

Other Social Incomes – Mimořádná okamžitá pomoc

Contribution on social services – Příspěvek na péči

- *Not strictly benefits*

There are no benefits of this type in the Czech Republic.

## 1.4 Social contributions

The social contributions in the Czech Republic can be divided into two parts:

**Social insurance and state employment policy contributions** consist of pension insurance, contributions for the state employment policy and sickness insurance. The participation in this system is compulsory for all persons, who have income from work and business.

**Contribution for public health insurance** is administrated by special public bodies – health insurance companies. The participation in this system is compulsory for all persons. The contribution of persons, who cannot have income from work and business, is paid by the state budget.



- *Scope and scale*

## Social contributions: contributors

	2005	2006	2007	2008	2009	2010	2011
Employers (compulsory) <sup>[a]</sup>	n.a.						
Employees (compulsory) <sup>[b]</sup>	4 085	4 162	4 287	4 250	4 021	4 120	4 292
Entrepreneurs (compulsory) <sup>[c]</sup>	911	904	918	938	673	735	742
Entrepreneurs (voluntary) <sup>[d]</sup>	241	222	211	169	141	151	115

Notes:

[a] Number of employers who pay social and/or health insurance contributions for their employees is not reported.

[b] The number of health and social insured employees is the same. Computed as number of insured minus self-employed entrepreneurs sickness insured. Úvodní strana » O ČSSZ » Informace » Statistika » Statistika počtu klientů »

[c] For self-employed health insurance is mandatory, while social (including sickness and pension) insurance is not. Therefore, number of health uninsured self-employed is reported.

[d] Voluntary insured are those self-employed without parallel employment who opt for voluntary sickness insurance, because other insurances (health and social are voluntary) and self-employed with parallel employment are insured automatically. Úvodní strana » O ČSSZ » Informace » Statistika » Statistika počtu klientů »

Source: CSSZ Yearbooks

## Social contributions: amounts [mil. CZK]

	2005	2006	2007	2008	2009	2010	2011
Employers (compulsory)	308418	329335	359493	375400	338 456	349 228	372 760
Employees (compulsory)	108317	116556	127661	133300	113 628	116 932	120 400
Entrepreneurs (compulsory)	63 874	7 454	85 288	86 079	9 955	95 476	95 743
Entrepreneurs (voluntary) <sup>[a]</sup>	883	900	974	882	635	661	423

Notes:

Source: Ministry of Finance, [http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/vlad\\_fin\\_stat\\_62902.html](http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/vlad_fin_stat_62902.html)

Domovská stránka &gt; Veřejné finance &gt; Finanční statistika &gt; Vládní finanční statistika

Table 2: příjmy, 12 Sociální příspěvky

## 1.5 Taxes

The current Czech taxation system was introduced in 1992. While direct taxes include income tax and real estate tax, indirect taxation consists of value added tax (VAT), excise taxes, road tax, estate tax, beneficiary tax and the tax on the transfer of real estate.

**Income Tax (*daň z příjmu*)** is paid by corporations and individuals. The corporate income tax is 19% of gross profit. Personal income tax is paid by any person who has residence or lives in the Czech Republic for at least 183 days in a year. Taxable income includes all income earned in the Czech Republic and abroad. The tax rate is flat and equal to 15%.

**Real Estate Tax (*daň z nemovitosti*)** has two parts: Land tax and Building tax. The tax is paid by the owner of land or building but the rates are very low.

**Value Added Tax - VAT (*daň z přidané hodnoty*)** is levied on the supply of goods, real estate transfers, services provided in the Czech Republic and imported goods from outside the European Union (EU). A typical VAT taxpayer is an entrepreneur or a company with headquarters or outlet in the Czech Republic if their turnover was higher than 1,000,000 CZK in



the last 12 months or if they are registered as a voluntary taxpayer. VAT taxpayers may claim a return on the tax paid to other VAT taxpayers if the goods are used as inputs for production. The difference between VAT on sold goods and services and VAT on inputs is termed VAT tax duty. If the tax duty is negative, VAT taxpayers receive a refund. The standard VAT rate is 20% with a preferential rate of 14%.<sup>1</sup> The latter is levied on groceries, non-alcoholic beverages, books, newspapers and magazines, medical goods, medical services, water distribution, services linked to student accommodation and social housing, public transport, cultural and sport services, and imports of artistic and collector's items.

**Excise Tax (*spotřební daň*)** is levied on mineral oil, alcohol, beer, wine, tobacco and tobacco goods. The tax is levied on goods made in or imported to the EU.

**Road Tax (*silniční daň*)** is paid by entrepreneurs for each vehicle used for business purposes and for all vehicles above 12 tons irrespective of use, except vehicles designated for agricultural purposes.

- *Scope and scale*

Taxes: taxpayers					
	2007	2008	2009	2010	2011
<b>Direct taxes</b>					
Income tax (individuals) <sup>1]</sup>	2 093 992	2 139 981	2 295 109	2 338 653	2 386 481
Firms <sup>2]</sup>	396 053	422 932	447 800	471 892	495 148
Real estate tax <sup>3]</sup>	3 924 769	4 061 464	4 276 596	4 407 461	4 554 847
Road tax <sup>4]</sup>	996 346	1 014 091	1 032 490	1 049 671	1 064 481
<b>Indirect taxes</b>					
VAT	671 709	699 038	725 593	741 911	757 549
Excise tax	n.a.	n.a.	n.a.	n.a.	n.a.

Notes: "n.a." not available, "--" not applicable

1] Workers who work for one employer only are not submitting income statement because income tax is processed as a lump-sum for all employees by the employer. These individuals are not included

Source: Information on activities of the Czech tax authority for 2006-2010 [Výroční zpráva české daňové správy] <http://cds.mfcr.cz/cps/rde/xchg/cds/xsl/325.html?year=0>

Taxes: revenue (millions of CZK)							
	2005	2006	2007	2008	2009	2010	2011
<b>Annual revenue (currency)</b>	1,162,803	1,223,393	1,359,388	1,450,503	1,383,940		
<b>Direct taxes</b>							
Individual Income Tax	142,431	136,783	151,461	143,315	127,547	131,267	133,918
Corporate Income Tax	144,821	141,773	166,417	187,621	127,144	129,596	123,324
Taxes on Property	13,074	13,491	15,538	15,510	14,395	16,351	20,344
Motor Vehicle Taxes	8,235	8,720	8,338	8,763	4,803	4,689	5,074
Social Security Contributions	416,139	441,933	488,407	513,374	509,715	517,475	533,166
<b>Indirect taxes</b>							
VAT	206,894	218,120	235,037	254,789	248,120	263,879	269,255
Excises	110,560	119,549	138,927	133,024	131,079	138,261	146,586

Source: Governance Finance Statistics, State budget balance of revenues and expenditures

Státní závěrečný účet za rok 2009, [http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/statni\\_zav\\_ucet.html](http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/statni_zav_ucet.html)

<sup>1</sup> The VAT rates (standard / preferential) increased in the last years a lot, the rates were 19% / 5% till 2007, 19% / 9% in 2008 and 2009, 20% / 10% in 2010 and 2011, and 20% / 14% since 2012.



## 2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

### 2.1 Scope of simulation

Simulation of benefits in EUROMOD

	Variable name(s)	Treatment in Euromod						Why not fully simulated?
		2007	2008	2009	2010	2011	2012	
Sickness Benefits	Bhl	I	I	I	I	I	I	The amount of benefit depends on the previous income and length of sickness.
Passive employment policy benefits	bun_s	PS	PS	PS	PS	PS	PS	The amount of benefit depends on the previous earning stream for some period of time, and on time spent in previous employment, and on length of past periods of unemployment.
Child Allowance	bch00_s	S	S	S	S	S	S	Not simulated in 2011 due to lack of information on disability status among children. Benefit cancelled in 2012.
Social Allowance	bchmt_s	S	S	S	S	-	-	
Foster Care benefits	bfafp	I	I	I	I	I	I	Eligibility taken from data
Housing Benefit	bho_s	S	S	S	S	S	S	
Parental Allowance	bfapl_s	PS	PS	PS	PS	PS	PS	
Birth grant	bchba_s	S	S	S	S	S	S	
Housing benefit	bho_s	S	S	S	S	S	S	
Regular Social Assistance Benefits	bsa00_s	S	S	S	S	S	S	
Supplement for Housing	bsaho_s	S	S	S	S	S	S	
Total social assistance	bsa_s	S	S	S	S	S	S	

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



## Simulation of taxes and social contributions in EUROMOD

	Variable name(s)	Treatment in Euromod						Why not fully simulated?
		2007	2008	2009	2010	2011	2012	
Income tax	ils_tax	S	S	S	S	S	S	
Employees ssc	tscee_s	S	S	S	S	S	S	
Entrepreneurs ssc	tsce_s	S	S	S	S	S	S	

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

## 2.2 Simulated policies and order of simulation

Employee and employer social and health contributions as well as income tax are simulated first as they are deductible from the income tax taxable income. Social benefits are simulated after income tax as they are tax exempt and, when means-tested, the income tests are based on net income. The order of simulate of benefits takes into account the “cumulative nature” of their income tests. The income test of Social Allowance and Housing Benefit are the same as the Child Allowance plus this benefit. As for Social Assistance, its income test is the same as the previous plus Social Allowance and Housing Benefit.

### Simulated policies & order of simulations

	2007	2008	2009	2010	2011	2012	
<u>uprate_cz</u>	on	on	on	on	on	on	DEF: UPRATING FACTORS
<u>ildef_cz</u>	on	on	on	on	on	on	DEF: INCOME CONCEPTS
<u>tundef_cz</u>	on	on	on	on	on	on	DEF: ASSESSMENT UNITS
<u>DefCons_cz</u>	on	on	on	on	on	on	DEF: define constants
<u>yse_cz</u>	on	on	on	on	on	on	DEF: recode negative self-employment income to zero
<u>yem_cz</u>	off	off	off	off	off	off	INC: minimum wage
<u>cer_cz</u>	on	on	on	on	on	on	SIC: employer social and health insurance contributions
<u>cee_cz</u>	on	on	on	on	on	on	SIC: employee social and health insurance contributions
<u>cse_cz</u>	on	on	on	on	on	on	SIC: self employed social and health insurance contributions
<u>tin_cz</u>	on	on	on	on	on	on	TAX: income tax
<u>bun_cz</u>	on	on	on	on	on	on	BEN: unemployment benefit, partially simulated
<u>cot_cz</u>	on	on	on	on	on	on	SIC: state funded public health insurance contributions (students, pensioners, children, etc.)
<u>bfapl_cz</u>	on	on	on	on	on	on	BEN: parental allowance
<u>bch00_cz</u>	on	on	on	on	on	on	BEN: child allowance
<u>bchmt_cz</u>	on	on	on	on	on	off	BEN: social allowance
<u>bchba_cz</u>	on	on	on	on	on	on	BEN: birth grant
<u>bho_cz</u>	on	on	on	on	on	on	BEN: housing benefit
<u>bsa_cz</u>	on	on	on	on	on	on	BEN: social assistance (social necessity benefit / Allowance for Living)



- *Structural changes between 2009 and 2010*

No changes.

- *Structural changes between 2010 and 2011*

Social allowance only available for families with disabled children. This element is not modelled due to lack of information on disability status among children.

- *Structural changes between 2011 and 2012*

Social allowance is cancelled.

### 2.3 Social benefits

Social benefits can be broken down into the following categories:

- Social insurance benefits
  - Unemployment benefits
  - Sickness benefits
  - Pensions
- State social support
  - Means-tested: child allowance, social allowance, housing benefit
  - Non-means tested: parental allowance, foster care benefit, funeral grants, birth grants
- Social assistance
  - Social necessity benefits
  - Social care benefits.

The system is organized around a key parameter — the so-called minimum living standard (MLS)<sup>2</sup>. This amount is calculated at the personal level, and is intended to reflect the cost of living. Most types of benefits are then defined as given percentages of the family-level MLS.

#### Minimum Living Standard (MLS)

The construction of MLS has one element. Amounts of MLS are different for single person, first adult in family, another adult in family and for children (three categories according to age).

#### MLS (CZK)

• Single	3,126
• First person in household	2,880
• Second and other persons who are not a dependent child	2,600
• Dependent child aged	
○ under 6 years	1,600
○ 6 - 15 years	1,960
○ 15 - 26 years	2,250
• Subsistence Minimum (CZK)	2,020

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<sup>2</sup> If person in the family has the income from business as the main income, its contribution to the income for the purpose of testing eligibility for social benefits cannot be lower than 50 % of average wage in previous year. These amounts are: 2008 – 10,800 CZK, 2009 – 11 700 CZK, 2010 – 11 900 CZK, 2011 – 12 100 CZK.



### Changes in MLS – 2010

No changes.

### Changes in MLS – 2011

No changes.

### Changes in MLS – 2012

New amounts:

MLS (CZK)

• Single	3,410
• First person in household	3,140
• Second and other persons who are not a dependant child	2,830
• Dependant child aged	
○ under 6 years	1,740
○ 6 - 15 years	2,140
○ 15 - 26 years	2,450
• Subsistence Minimum (CZK)	2,200

#### 2.3.1 Social Insurance

##### 2.3.1.1 Unemployment Benefits (bun\_cz)

Unemployment benefits are available for individuals actively searching for a job who were employed for at least 12 months in the previous three years and who are not receiving an old-age pension, full invalidity pension or sickness benefits. The employment record required to be eligible for unemployment benefits includes the time taken preparing a partially disabled person for a job, military or civil service, custody of a child less than three years old or a disabled child up to the age of 18, custody of disabled person above 80 or partially disabled relatives above 80, and the time of receiving disablement benefit.

The benefit entitlement for people less than 50 years is 5 months; from 50 to 55 years are 8 months and over 55 years, 11 months. *Note: duration of the benefit is taken from the data in simulations due to incomplete information.*

The basis for calculating unemployment benefit includes income net of social insurance contributions and income tax, i.e. the average net monthly wage in the previous job, or the net profit from previous entrepreneurial activity. The amount of benefit is in the first 2 months equal 65% of the average net wage in the last employment, next 2 months it is 50% and for the remaining time it is 45%. The maximum amount of unemployment benefit is 58% of the economy-wide average wage in the first three quarters of the preceding year, i.e. 13,307 CZK in 2009. The minimum amount (which is applied, if it is not possible to prove the amount of previous income) is 12% of the average wage in the first three quarters of the preceding year. *Note: minimum threshold is not implemented in EUROMOD due to data constraints.*

- *Changes in 2010*

The maximum amount of unemployment benefit is 58% of the economy-wide average wage in the first three quarters of the preceding year, i.e. 13,280 CZK.

- *Changes in 2011*



The maximum amount of unemployment benefit is 58% of the economy-wide average wage in the first three quarters of the preceding year, i.e. 13,528 CZK.

In case of voluntary withdrawal from the work, the coefficient for calculation of unemployment benefit is reduced to 45%. *Note: This element is not simulated in EUROMOD due to lack of information on reasons for withdrawal from work and incidence.*

- **Changes in 2012**

The maximum amount of unemployment benefit is 58% of the economy-wide average wage in the first three quarters of the preceding year, i.e. 13,761 CZK.

A person is entitled to unemployment benefit if he or she was employed for at least 12 months during the last two years.

In case of voluntary withdrawal from the work, entitlement to unemployment benefit begins after 6 months. *Note: This element is not simulated in EUROMOD due to lack of information on reasons for withdrawal from work and incidence.*

### 2.3.2 State Social Support

All benefits provided through the state social support are not taxable and may be divided between means-tested and non-means-tested benefits. General net household income for the purpose of testing eligibility for the state social support is defined as taxable income for the purpose of income taxation, stipends, housing supplements from employers, bonuses, alimony, sickness benefits, unemployment benefits, income from abroad and pensions. Net profit from entrepreneurial activity is included if it is greater than zero and its contribution to the income for the purpose of testing eligibility for social benefits cannot be lower than 50 % of average wage in previous year. On the other hand, general net household income does not include any debts.

A family is defined for the purpose of state social support (except housing benefit for which all persons of the same domicile address are considered in the same unit of assessment) as a person, dependent children, parents of dependent children, spouses or partners, dependent children of dependent children (if they are not married, widowed or divorced) if they live with the person in the same household and meet the cost of living together. If a dependent child is under 18, the condition of meeting the costs of living together is not required. If a dependent child is over 18 and under 26 and is training for future employment, the condition of meeting the costs together is not required if the child has the same domicile address as her parents. A spouse is considered to be a unit member.

A dependent child for the purpose of state social support is classified as a child that has not yet finished compulsory schooling and until 26 if he or she is training for future employment (i.e., is in education); or, alternatively, if the child cannot train for future employment because of injury, long-term illness or if the child is not able to work. A child between the end of compulsory schooling and 18 is also dependent if registered at a district labour office and not receiving unemployment benefit. A child receiving a full invalidity pension is not considered a dependent child.

#### 2.3.2.1 Child Allowance (bch00\_s)

Child allowance is a benefit provided to families with dependent children with an income of less than 2.4 times the family's living minimum. The net household income which is tested for the purpose of child allowance is the general net household income plus foster care benefit and parental allowance. The relevant period for the income test is the calendar year prior to the year when the income is tested.

The allowance, per child, is provided on three levels, depending on the age of the child:



Age of the dependent child	Amount of monthly child allowance per child in CZK
Up to 6 years of age	500
From 6 – 15 years	610
From 15 – 26 years	700

- *Changes in 2010*

No changes.

- *Changes in 2011*

No changes.

- *Changes in 2012*

No changes.

### 2.3.2.2 Social Allowance (bchmt\_cz)

A social allowance is available to families with at least one dependent child if their net income was less than  $2 \times MLS$  in the previous quarter. (The 2 is the parameter A). Net household income for the purpose of the income test is the net household income relevant for a child allowance test plus the child allowance. The relevant time span for the income test is the previous calendar quarter.

The amount of the allowance is determined as

$$SocialAllowance = \sum Children'sMLS - \frac{\sum Children'sMLS \times \max\{NetIncome, TotalMLS\}}{TotalMLS \times 2}$$

The children's part of MLS may be increased by multiplying the allowance by 2.7 if the child is disabled, 2.4 if the child is partially disabled, 1.2 if the child is persistently ill and 1.1 if children are born within three years. The household part of MLS can be multiplied by 1.4 if both or just one parent are disabled, 1.1 if one of the parents is disabled, and by 1.05 for a single parent (who does not need to be disabled). If several conditions are fulfilled, the social allowance is then the sum of the basic allowance and the sum of allowances calculated as allowances with particular conditions, minus the basic allowance.

- *Changes in 2010*

No changes.

- *Changes in 2011*

A social allowance is available only to families with disabled children. Other parameters are the same.

- *Changes in 2012*

The benefit was cancelled.



Note: Increase in social allowance for children with disability is not modelled in EUROMOD due to lack of information on disability status for children. Effectively social allowance is not modelled in EUROMOD since 2011 when it was available for families with disabled children only.

### 2.3.2.3 Housing Benefit (bho\_cz)

The household is entitled to this benefit if its housing costs are higher than 30% (35% in Prague) of the net household income, while the housing costs are at most the normative costs. The normative costs are declared by the Ministry of Labour and Social Affairs, reflecting the number of persons in the household, the number of inhabitants in the municipality, and the type of housing (rental and other). The amount of the housing benefit is equal to the difference between the normative costs and 30% (35% in Prague) of the net household income. If the net household income is lower than the MLS, the household is entitled to the benefit if its housing costs are higher than 30% (35% in Prague) of the MLS. The amount of the benefit is 30% (35% in Prague) of the MLS.

#### Monthly normative costs (CZK) in 2009

Normative costs of housing in rental housing (CZK / month)					
Number of persons in family	Number of persons in family				
	Prague	Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
1	5,877	4,816	4,597	4,309	4,016
2	8,499	7,037	6,738	6,344	5,943
3	11,638	9,739	9,348	8,832	8,309
4 and more	14,597	12,307	11,835	11,213	10,582

Normative costs of co-operative housing and owner housing					
Number of persons in family	Number of inhabitants in the municipality				
	Prague	Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
1	3,356	3,356	3,356	3,356	3,356
2	5,062	5,062	5,062	5,062	5,062
3	7,124	7,124	7,124	7,124	7,124
4 and more	9,078	9,078	9,078	9,078	9,078

- *Changes in 2010*

No changes.

- *Changes in 2011*

New monthly normative costs (CZK)

Normative costs of housing in rental housing (CZK / month)					
Number of persons in family	Number of persons in family				
	Prague	Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
1	6,363	5,117	4,863	4,406	4,293
2	9,183	7,478	7,130	6,505	6,350
3	12,557	10,328	9,872	9,056	8,852


**Normative costs of housing in rental housing (CZK / month)**

Number of persons in family	Prague	Number of persons in family			
		Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
4 and more	15,744	13,055	12,506	11,521	11,276

**Normative costs of co-operative housing and owner housing**

Number of persons in family	Prague	Number of inhabitants in the municipality			
		Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
1	3,723	3,723	3,723	3,723	3,723
2	5,584	5,584	5,584	5,584	5,584
3	7,818	7,818	7,818	7,818	7,818
4 and more	9,950	9,950	9,950	9,950	9,950

- *Changes in 2012*

New monthly normative costs (CZK)

**Normative costs of housing in rental housing (CZK / month)**

Number of persons in family	Prague	Number of persons in family			
		Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
1	7,068	5,616	5,352	4,563	4,379
2	10,144	8,157	7,796	6,715	6,464
3	13,813	11,214	10,742	9,330	9,001
4 and more	17,269	14,135	13,565	11,862	11,466

**Normative costs of co-operative housing and owner housing**

Number of persons in family	Prague	Number of inhabitants in the municipality			
		Above 100,000	50,000 – 99,999	10,000 – 49,999	below 10,000
1	4,053	4,053	4,053	4,053	4,053
2	6,042	6,042	6,042	6,042	6,042
3	8,421	8,421	8,421	8,421	8,421
4 and more	10,699	10,699	10,699	10,699	10,699

#### 2.3.2.4 Parental Allowance (bfapl\_cz)

Parental allowance is available for a parent who cares in person and on a daily basis for a child up to four years old (or up to seven years old when the child is disabled). If the person receives maternity benefit or sickness benefit associated with childbearing, the amount of these benefits is subtracted from the parental allowance. It is non-means tested benefit.

*Note: due to lack of information in the data about parents who care in person for children, EUROMOD simulations take eligibility from the data (i.e., only those reporting parental allowance in the data are eligible for this benefit).*



The parent can select the period of support and also the amount of the allowance, as follows:

- faster draw-down of parental allowance – after maternity benefit (hereinafter referred to as MB) at the increased rate (11,400 CZK) until the child is 24 months old; only parents who are entitled to MB of at least 380 CZK per calendar day may request this form of draw down;
- standard draw-down – after MB at the basic rate (7,600 CZK) until the child is 36 months old; only parents who are entitled to MB may request this form of draw down;
- slower draw-down – after MB or from the birth of the child (if the parent is not entitled to MB) at the basic rate (7,600 CZK) until the child is 21 months old and after it at the reduced rate (3,800 CZK) until the child is 48 months old.

In the case of disabled children, the parent is entitled to parental allowance at the basic rate (7,600 CZK) until the child is 7 years of age, from the day on which the child is diagnosed as a child suffering from a long-term disability or a severe long-term disability, regardless of the form of draw-down that had been previously selected (prior to the diagnosis of the child's state of health). If the child draws care allowance (according to Act on Social Services), the parent is entitled to half-pay parental allowance. If the child diagnosed as a child suffering from a long-term disability or a severe long-term disability does not draw care allowance, the parent is entitled to parental allowance at the lower rate (3,000 CZK) from 7 to 10 years of the child's age.

A parent is entitled to parental allowance provided:

- a child under the age of 3 years attends a creche or other facility for pre-school children for a maximum of 5 calendar days in a month;
- a child over the age of 3 years attends a kindergarten or similar facility for pre-school children for no more than 4 hours a day or a maximum of 5 calendar days in a month;
- the child attends a remedial care centre, creche, kindergarten or similar facility for disabled pre-school children for no more than 4 hours a day;
- a child of a disabled parent attends a creche, kindergarten or similar facility for pre-school children for no more than 4 hours a day;
- a child diagnosed as a child suffering from a long-term disability or a severe long-term disability attends a creche, kindergarten or similar facility for pre-school children for no more than 6 hours a day or performs compulsory education.

The parent's income is not tested; the parent may carry out an occupational activity without losing their entitlement to parental allowance. However, during the period of this occupational activity, the parent must ensure that the child is in the care of another adult.

*Note: due to lack of information in the data about the parents choices of period of support and amount of the allowance, EUROMOD simulations assume that all parents opt for the "standard draw-down" allowance.*

- ***Changes in 2010***

No changes.

- ***Changes in 2011***

No changes.

- ***Changes in 2012***

Parental allowance is provided until the total amount of 220,000 CZK is drawn, maximum up to 4 years of child's age.



A parent may select the amount of parental allowance and thus the period of its drawing under the condition that at least one parent in a family is a person participating in sickness insurance.

Note:

- Most people in the Czech Republic fulfil the conditions for selecting dose level. Due to limitation of data we assume that everyone choose to receive benefits for 36 months, which means a monthly benefit in the amount of 6.111 CZK.

#### **2.3.2.5 Birth Grant (bchba\_cz)**

A birth grant is available to any mother who gives birth to one or more children. The birth grant may be paid to the father if the mother died during birth or to a foster parent when the child (or children) is under one. The amount is 13,000 CZK per one child

- *Changes in 2010*

No changes.

- *Changes in 2011*

Families are entitled to the birth grant provided the family income (defined in the same way as net household income for child allowance) in the calendar quarter prior to the birth of the child does not exceed 2.4 times the family's living minimum. The birth grant amounts to 13,000 CZK for the first live-born child. If another live-born child/children is/are born together with the first live-born child the total birth grant is 19,500 CZK. Therefore, birth grant is only entitled to women that gave birth to their first live-born child (or children if they are born together), and consequently the grant is not provided if there are any older siblings in the family.

- *Changes in 2012*

No changes.

### **2.3.3 Social Assistance**

#### **2.3.3.1 Social Assistance Benefits (Benefits of Material Needs – bsa\_s)**

Social necessity benefit serves as a last resort. A family and a dependent child are defined in the same way as for state social support, with the exception of housing benefit. The condition that the household must meet the costs of living together is always tested here. A temporary period spent outside the household for the purposes of work or training for future employment is allowed.

The net household income for the purpose of testing eligibility for the benefits is defined as 70% of work and other taxable income (net income) + 80 % of unemployment benefits and sickness benefits + 100 % of other income (e.g. pensions) but without tax bonus and housing benefit.

New benefits of social assistance are:

- Allowance for Living
- Supplement for Housing
- Extraordinary Immediate Assistance

#### **Allowance for Living (bsa00\_s)**



Persons or families are entitled to an allowance for living if the income of these persons or families is less than the amount of living when “reasonable” housing costs have been deducted. Amount of living is equal (in “standard” situation) to the sum of MLS.

The amount of the allowance for living is set as the difference between the amount of living of a person or family and the income of that person or family, less reasonable housing costs. (Reasonable housing costs are the cost of housing to a maximum of 30%, in Prague 35%, of the income of the person or family).

### **Supplement for Housing (bsaho\_s)**

It is targeted at households whose net household income, including housing benefit and social assistance benefit and after paying housing costs (at most the normative costs), is still lower than the MLS. Their income is then topped up to the MLS on the assumption that the individual actively seeks a job.

### **Extraordinary immediate assistance**

This is provided to persons who find themselves in situations that have to be resolved immediately. The Act addresses five situations that justify this benefit:

1. Where persons do not meet the conditions of material need but, due to a lack of funds, suffer from a serious threat to their health. The benefit tops up a person’s income so that it is level with the existence minimum (or the subsistence minimum in cases of dependent children).
2. Where persons are victims of a serious extraordinary event (a natural disaster, storms and gales, ecological disaster, fire, etc.) The maximum amount of the benefit is fifteen times the individual’s subsistence minimum.
3. Where persons do not have enough resources to cover essential one-off expenditure connected, in particular, with the payment of an administrative fee for duplicate copies of personal documents or in cases of monetary loss. The maximum amount of the benefit is the amount of this one-off expenditure.
4. Where persons do not have enough resources to acquire or repair basic furniture or durables or to cover justified costs relating to the education or special interests of dependent children. The amount of the benefit may be a maximum of the specific expense, but the sum of benefits granted must not exceed ten times the individual’s subsistence minimum in one calendar year.
5. Where persons are at risk of social exclusion. This concerns, for example, the situation of persons who have been released from custody or from prison, who have left an orphanage or foster care on reaching adulthood, or who have completed treatment for an addiction. A benefit of up to 1,000 CZK may be granted. The benefit may be awarded repeatedly, but the sum of benefits granted in one calendar year may not exceed four times the individual’s subsistence minimum.

*Note: due to lack of information in the data about this type of circumstances, EUROMOD simulations don’t include Extraordinary immediate assistance.*

Since 2009 a new element was added to calculation of Total minimum living standard for social assistance. If an adult person is without work more than 6 months, the minimum living standard for social assistance is just subsistence minimum and not Subsistence minimum + 0.5\*(minimum living standard - Subsistence minimum). It is not relevant for pensioners, sick persons and people, who are participating on the public work.

- *Changes in 2010*



No changes.

- *Changes in 2011*

No changes.

- *Changes in 2012*

No changes.

**2.3.3.2 Contribution on social services**

Social care benefits are one-off allowances usually paid to disabled people for specific purposes, which was implemented in 2007. For example, these benefits may include specific amounts for homecare services, spa services, increased cost of diabetic food, wheelchair purchase, increased cost for blind or otherwise disabled persons, for reconstruction of houses needed for disabled access, etc.

The person, who is depending on care of other person, can obtain this benefit. Its amount depends on the age and degree of dependence.

Contribution on social services per month

Degree of dependence	Age 18 and younger	Older than 18
Light	3,000	2,000
Medium	5,000	4,000
Heavy	9,000	8,000
Full	12,000	12,000

- *Changes in 2010*

No changes.

- *Changes in 2011*

The amount for light dependence of older than 18 persons decreased to 800 CZK.

- *Changes in 2012*

The amount for medium dependence of younger than 18 persons increased to 6,000 CZK.

*Note: due to lack of information in the data about this type of expenditures, EUROMOD simulations don't include this benefit.*

**2.4 Social contributions**

The social contributions in the Czech Republic can be divided into two parts:

- Social insurance and state employment policy contributions consist of pension insurance, contributions for the state employment policy and sickness insurance.
- Contributions for public health insurance

**2.4.1 Employee social contributions**

**Social insurance and state employment policy contributions**



The contributory base for employee is the gross wage plus any bonuses, standby-duty remuneration, etc. of the employee, but not income which is not subject to income taxation, income from occasional work, compensations, rewards for increased productivity, etc.

### **Contributions for Public Health Insurance**

The contributory base is the same as in Social insurance and state employment policy contributions. But there is a minimum contributory base, which is equal to minimum wage (it is not applied, if the person uses the minimum contributory base as self employed). For those who do not have permanent income such as students, pensioners, children, the state pay minimum insurance<sup>3</sup>, therefore the minimum contributory base is not relevant in these cases. A maximum contributory base was introduced in 2008 and was set to 1 130 640 CZK per year in 2009. Information on the contribution rates provided in section 2.4.3.).

- *Changes in 2010*

A maximum contributory base was changed (1 707 048 CZK per year).

- *Changes in 2011*

A maximum contributory base was changed (1 781 280 CZK per year).

- *Changes in 2012*

A maximum contributory base was introduced in different amounts for Social insurance and state employment policy contributions (1 206 576 CZK) and Contributions for Public Health Insurance (1 809 864 CZK).

## **2.4.2 Employer social contributions**

### **Social insurance and state employment policy contributions**

Contributory base is the same as in the case of employee.

### **Contributions for Public Health Insurance**

Contributory base is the same as in the case of employee.

A maximum contributory base in 2009 was 1 130 640 CZK per year. Information on the contribution rates provided in section 2.4.3.

- *Changes in 2010*

A maximum contributory base was changed (1 707 048 CZK per year).

- *Changes in 2011*

A maximum contributory base was changed (1 781 280 CZK per year).

- *Changes in 2012*

A maximum contributory base was introduced in different amounts for Social insurance and state employment policy contributions (1 206 576 CZK) and Contributions for Public Health Insurance (1 809 864 CZK).

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<sup>3</sup> State minimum insurance is calculated as a multiple of the contributory base for state-insured and rate 13.5%. The value of the contributory base is determined by government decree and for the years 2009-2012 is the CZK 5013 per month.



### 2.4.3 Self-employed social contributions

#### Social insurance and state employment policy contributions

Entrepreneurs pay pension insurance and contributions for the state employment policy, while sickness insurance is paid on a voluntary basis. For entrepreneurs it is important, if the business activity is the main source of income or not. Since 2008 the business activity is the main source of income, if the monthly income from wages and salaries is lower than 2,000 CZK. Income from business activity is minor source of income as well, if the person is student (and the age is lower or equal to 26) or pensioner.

a) Income from business activity is the main source of income

For entrepreneurs, the base is 50 % of net income (gross income minus costs) in the last year, but not more than 1 130 640 CZK. There is a year minimum contribution base of 70 668 CZK.

b) Income from business activity is the minor source of income

If the year gross income minus costs is lower than 56,532 CZK, there is no obligation to pay social insurance. In other cases the participation in the social insurance is compulsory and the contribution base is 50% of net income in the last year, but not more than 1 130 640 CZK. If the person has both types of income (job and business), the contribution bases are summed.

#### Contributions for public health insurance

For entrepreneurs, the base is 50% of net income in the last year, but not more than 1 130 640 CZK. If the income from business activity is the main source of income (the business activity is the main source of income, if the year income from wages and salaries is lower than 12\*minimum wage), the year contribution base cannot be lower than 141,330 CZK. If the person has both types of income (job and business), the contribution bases are summed.

New rates since 2009:

	Employee	Employer (per employee)	Entrepreneur
Social Insurance	6.5%	25.0%	29.2%
Of which: Pension	6.5%	21.5%	28.0%
Employment	0.0%	1.2%	1.2%
Sickness	0.0%	2.3%	1.4%*
Health Insurance	4.5%	9.0%	13.5%
<b>Total</b>	<b>11.0%</b>	<b>34.0%</b>	<b>44.1%</b>

Note: \* paid on a voluntary basis.

- *Changes in 2010*

#### Social insurance and state employment policy contributions

New year minimum contribution base is equal to 71,136 CZK. If the income from business is not the main source of income and if the year gross income minus costs is lower than 56,901 CZK, there is not obligation to pay social insurance.

The maximum contribution base is valid for employee as well. It is 1 707 048 CZK per year. If the person has both types of income (job and business), the contribution bases are summed.

#### Contributions for public health insurance

If the income from business activity is the main source of income, the year contribution base cannot be lower than 142,254 CZK.

The maximum contribution base is 1 707 048 CZK per year. If the person has both types of income (job and business), the contribution bases are summed.



- *Changes in 2011*

**Social insurance and state employment policy contributions**

New annual minimum contribution base is equal to 74,220 CZK. If the income from business is not the main source of income and if the year gross income minus costs is lower than 59 374 CZK, there is not obligation to pay social insurance.

The maximum contribution base is valid for employee as well. It is 1 781 280 CZK per year. If the person has both types of income (job and business), the contribution bases are summed.

The rate of sickness insurance contribution of entrepreneur increased from 1.4 to 2.3 %.

**Contributions for public health insurance**

If the income from business activity is the main source of income, the year contribution base cannot be lower than 148,440 CZK.

The maximum contribution base is 1 781 280 CZK per year. If the person has both types of income (job and business), the contribution bases are summed.

- *Changes in 2012*

**Social insurance and state employment policy contributions**

New year minimum contribution base is equal to 75,420 CZK. If the income from business is not the main source of income and if the year gross income minus costs is lower than 60,329 CZK, there is not obligation to pay social insurance.

The maximum contribution base is valid for employee as well. It is 1 206 576 CZK per year. If the person has both types of income (job and business), the contribution bases are summed.

The business activity is the main source of income, if the month income from wages and salaries is lower than 2,500 CZK per month.

**Contributions for public health insurance**

If the income from business activity is the main source of income, the year contribution base cannot be lower than 150,822 CZK.

The maximum contribution base is 1 809 864 CZK per year. If the person has both types of income (job and business), the contribution bases are summed.

## 2.5 Personal income tax

### 2.5.1 Tax unit

Personal income tax is paid by any person who has residence or lives in the Czech Republic for at least 183 days in a year. Taxable income includes all income earned in the Czech Republic and abroad. If a person lives in the Czech Republic for the purpose of study or recuperation or less than 183 days in a year, the taxable income is only the income from the Czech Republic.

- *Changes in 2010*

No changes

- *Changes in 2011*

No changes

- *Changes in 2012*



No changes

### 2.5.2 Exemptions

The tax base does not include income from selling one's own house or flat if a person has lived there for at least two years before the transfer, and if the house or flat was not used for business purposes, or if the time between buying and selling the house or flat was more than five years<sup>4</sup>. Nor does it include loans and drafts, income from property insurance, sickness benefits, state social support, social assistance, unemployment benefit, income from public health insurance, the amount of pensions lower than 36 \* minimum wage per year, maintenance paid to soldiers, stipends, donations from the state budget, tax bonuses, benefactions, alimony, travel expenses paid by employers, meals or beverages provided by employers, complementary pension insurance with the state support paid by employers up to 5% of the gross wage, interest income from savings for building purposes or purchase of a house for which state support is provided, gift income not exceeding 500 CZK, winnings in state lotteries, income from appreciation of currency, and income taxed according to a separate tax scheme.

- *Changes in 2010*

No changes.

- *Changes in 2011*

If annual taxable income from employment, business and rental exceeds 840 000 CZK, the total value of pensions has to be taxed.

- *Changes in 2012*

No changes.

### 2.5.3 Tax allowances

Taxpayers may deduct the following allowances from their tax base:

- *Gifts to charitable organisations* may be deducted if the amount of the gift is at least 2% of the tax base or 1,000, and if the charity is recognised by the state. The taxpayer may deduct at most 10% of the tax base.
- *Interest* used for mortgage repayments.
- *Complementary pension insurance with state support*. The total deductible amount is the sum of all payments to complementary pension funds less 6,000. The amount deducted may not exceed 12,000.
- *Private life insurance*. The maximum total deductible amount is 12,000. The taxpayer must be insured for at least five years, and must be under 60. The minimum amount of insurance premium is 40,000 if the duration of insurance is between 5 and 15 years, and 70,000 if the duration is more than 15 years.
- *Labour union fees*. The taxpayer may deduct fees paid to labour unions. The maximum amount is either 1.5% of the taxable income or 3,000.

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<sup>4</sup>Furthermore, the tax base does not include income from selling chattels with the exception of personal vehicles, ships and aeroplanes, provided that the time between buying and selling these items was less than one year.



The taxpayer deducts 1/12 of the amount for each month during which the conditions listed above are met. In the case of personal exemption, the taxpayer deducts the whole amount if the conditions are met at least on the last day of the year.

- *Changes in 2010*

No changes

- *Changes in 2011*

No changes

- *Changes in 2012*

No changes

#### 2.5.4 Tax base

The tax base for personal income tax is divided into five partial tax bases:

1. Super gross wages and salaries (since 2008);
2. income from business activities including income from agriculture, forestry and fishery; income from copyright;
3. capital income including dividends, interest, revenues from expiration of contract of complementary pension insurance with state support; income from life insurance (minus premium paid); income from options and forwards;
4. rental income;
5. and other income.

#### Wages and Salaries

If the amount of wages and salaries is less than 5,000 per month and the character of the job is occasional, it is taxed by a separate tax rate (15 %).

Since 2008 the social and health insurance contribution paid by employer is a part of the partial tax base of “Wages and salaries”.

*Note: due to lack of information in the data about occasional jobs, EUROMOD simulations don't include this special rate for low wages and salaries.*

#### Income from business activities

Entrepreneurs may account for losses in order to reduce their profit, but only in the case of the same activity. For entrepreneurs, taxable income is also net of costs (social and health insurance contribution is not tax deductible item). Instead of deducting the amount of actual costs, a taxpayer may replace it by 80% of revenues from agriculture, forestry, fishery and craft, 60 % of revenues of non-craft activities, 40% of revenues of copyright or 30% of rental revenues.

If the entrepreneur's spouse helps the entrepreneur with his or her business, the taxable income from this partnership is divided such that the partner may have taxable income of at most 50% or 540,000 per year (or 45,000 for each month of the business partnership) of the total taxable income of the married couple. If more persons live with an entrepreneur in the same household and help him or her with his business, the taxable income is then divided so that the entrepreneur's partners may have at most 30% or 180,000 per year (or 15,000 per month) of total taxable income. If a child in the household is a business partner, the parents are not eligible



for a tax allowance per child or for a tax bonus per child. Children in compulsory schooling may not be made partners.

Honorariums of less than 7,000 per month are taxed at a separate tax rate (15 %).

**Note:** due to lack of information in the data we taxed this type of income as a part of the tax base that is taxed at a progressive rate.

### **Capital income**

Almost all incomes are taxes by the separate tax rate (15 %).

### **Rental income**

The taxable income is net of costs.

### **Other income**

Other income includes income from occasional activities exceeding 20,000 CZK per year, income from the transfer of own real estate (with exemptions described below), nourishments, pensions exceeding 36 \* minimum wage per year, winnings in lotteries exceeding 10,000 CZK.

The total tax base is the sum of the five partial tax bases mentioned above. The total tax base cannot be lower than the partial tax base "wages and salaries".

- *Changes in 2010*

No changes.

- *Changes in 2011*

No changes.

- *Changes in 2012*

No changes.

#### **2.5.5 Tax schedule**

Just one rate – 15 %.

- *Changes in 2010*

No changes.

- *Changes in 2011*

No changes.

- *Changes in 2012*

No changes.

#### **2.5.6 Tax credits**

"Standard" tax credits:



- *Personal tax credit* for each taxpayer (24,840).
- *Spouse tax credit* (24,840 CZK) applies if a spouse lives with the taxpayer in the same household and does not have a yearly income higher than 68,000 CZK. The income of the spouse tested for this purpose is generally in gross terms. It does not include disability pension, state social support, social care benefits, state support for complementary pension insurance, state support for savings for building purposes, or stipends. The tax credit doubles (49,680 CZK) if the spouse is disabled. *Disability tax credit* (2,520 CZK) if the taxpayer receives a part-invalidity pension. If the taxpayer receives a full invalidity pension, he or she may deduct 5,040 CZK. *Student tax credit* (4,020 CZK) may be applied if the taxpayer is less than 26 and is an undergraduate student, or when he/she is a graduate student and is less than 28.

Minimum wage in 2009 = 8,000 CZK per month.

- ***Changes in 2010***

New amount of refundable child tax credit 11 604 CZK per year.

Disability tax credit was divided into 3 levels:

- Disability 1st level – tax credit 2,510 CZK per year
- Disability 2nd level – tax credit 2,510 CZK per year
- ***Disability 3rd level tax credit 5,040 CZK per year***

- ***Changes in 2011***

- *Personal tax credit* for each taxpayer (23,640).

- ***Changes in 2012***

- *Personal tax credit* for each taxpayer (24,840 CZK).
- *Refundable child tax credit* for each child (13,404 CZK).

*Note: When modelling Disability tax credit partial disability is assumed for all recipients due to lack of information on disability level.*

### **2.5.6.1 Refundable child tax credit**

Persons, who care for dependent children, may deduct (after the use of standard credits) from their income tax a tax credit per child. A child or children must live in the same household as the parents (or may alternatively be temporarily placed in institutions for the purpose of study or preparation for future work). Persons are eligible for an allowance for each month in which the conditions are met. The amount of the tax credit is 10,680 CZK per child per year. If the tax duty is lower than the tax credit, the difference is called a tax bonus and is paid to the taxpayer, while the taxpayer's tax duty is then zero. The tax bonus is paid just in the case that the taxable income of the person is higher than 6 times the minimum wage per year. The maximum amount of tax bonus is 52 200 CZK per year. If the tax duty is higher than the tax credit, the taxpayer pays the difference between the two. Only one parent can claim the refundable child tax credit.

A dependent child for the purposes of tax allowance or bonuses is defined as an own child, adopted child, child in foster care, children of one's spouse and grandchildren if they are younger than 18, or younger than 26 if not receiving full invalidity pension and currently preparing for future employment. A child who cannot prepare for future employment because of injury, long-term illness or disability that prevents work is also considered a dependent.

- ***Changes in 2012***

The maximum amount of tax bonus is 60 300 CZK per year



### 3. DATA

#### 3.1 General description

##### EUROMOD database description

EUROMOD database	CZ_2008_a3
Original name	EU-SILC and Životní podmínky (SILC) 2008
Provider	Eurostat and Czech Statistical office
Year of collection	2008
Period of collection	Feb 23 – Apr 27, 2008
Income reference period	Year 2007
Sampling	Two stage random sampling
Unit of assessment	HH[1]
Coverage	Private households[2]
Sample size	26,884 IND 11,294 HH
Response rate	83,1%

Notes:

[1] One person living alone or a group of people living at the same apartment (address) **and** sharing expenditures (housekeeping concept). If more than one household was found in a dwelling unit, all hh in selected dwellings were included as eligible for the survey.

[2] households living at private residential addresses

SILC survey is a survey introduced in the Czech Republic following Eurostat guidelines and it added to already existing surveys, namely quarterly rotating panel of Labour Force Survey (VŠPS) and annual Household Budget Surveys. First survey was done in 2006 (SILC 2005).

The SILC survey is regarded as a multipurpose source. Data have been used for several official and unofficial income distribution analyses and for tax/benefit modelling. SILC is the only suitable survey available for EUROMOD purposes thanks to its annual frequency and information on both labour statuses and incomes.

The CZ database is a sample of household created by two stage random sampling. The 2008 sample includes households from 4 waves. In the first wave all persons with usual residence in that dwelling (their only or main place of residence) were included in the survey. This also includes foreign nationals and sub-tenants living in the selected dwelling. As far as the other waves (2nd to 4th) are considered, only those households are surveyed which have as their members sample persons (those who were enlisted in the first wave). As a rule, sample persons who moved from the original first-wave household were to be tracked down and their new address found. Data was collected by interviews and interviewers filled in the answers into paper or electronic questionnaires (PAPI/CAPI data collection).

As in the previous years, the survey was carried out on the whole territory of the Czech Republic. As a part of gradual transition from paper (PAPI) to electronic (CAPI) form of questioning, the CZSO utilized, when surveying the first wave (4249) households, an electronic BLAISE questionnaire. For households of the second to fourth waves (entered the survey in 2005 to 2007) paper questionnaires were used. The sample was obtained by utilizing two-stage probability sampling scheme independently for each of the 14 administrative regions (NUTS3 regions). The total number of dwellings selected in each region was chosen to be proportional to the region's size. At the first sampling stage small geographical areas (CEU's - census enumeration units or districts) were selected by probability sampling. These CEU's served as a basis for the second-stage selection (a sample of 10 dwellings was drawn from each CEU).

The sample was obtained by utilizing two-stage probability sampling scheme independently for each of the 14 administrative regions (NUTS3 regions). The total number of dwellings selected in each region was chosen to be proportional to the region's size. At the first sampling stage



small geographical areas (CEU's - census enumeration units or districts) were selected by probability sampling. These CEU's served as a basis for the second-stage selection (a sample of 10 dwellings was drawn from each CEU).

Before selecting the sample of dwellings, the sampling frame had to be adjusted to enable incorporation of small census enumeration units into the sampling process to reach the required full geographical coverage of the national territory. Small CEUs (with less than 20 inhabited dwellings) were merged with adjacent CEUs and the resulting larger CEUs entered the first stage of sampling. Consequently, in some cases, the 10 dwellings sampled in the second stage belong to two, in exceptional cases even more, real administrative CEUs.

The CZSO's regional fieldwork units (each covering one of the 14 NUTS3 administrative regions) received the list of selected dwellings (address + identification number of the flat in apartment buildings). Before the actual fieldwork, the regional fieldwork units' staff carried out identification of the selected dwellings and filled in the contact names on the list of selected dwellings for interviewers.

The primary database used for the Euromod is the Eurostat UDB SILC for the Czech Republic. Since some variables are needed in greater disaggregation, these are added from the SILC database provided directly by the CSO (it contains variables defined differently from the Eurostat UDB). In particular, following variables are being used from the Czech SILC database (Czech acronyms in brackets)<sup>5</sup>:

- dmp (vel) – population size of residential unit to account for different housing allowance;
- bch00 (pbydl) – Housing Allowance (příspěvek na bydlení) – child allowances;
- bchmt (socp) – Social Allowance (sociální příspěvek + zaopatřovací příspěvek till 2004) reported at household level;
- bfapl (rodp) - Parental Allowances (rodičovský příspěvek);
- bfafp (pestp) - Foster Care Benefits (dávky pěstounské péče);
- bfaot (ostdav) - Other Social Benefits including Birth and Funeral Grant (ostatní dávky SSP = porodné a pohřebné);
- tin (dan) – Income Tax at personal level (daň z příjmů fyzických osob);
- tsc (pojis) - Health and social insurance contribution of employee at individual level (zdravotní a sociální pojistné odvody zaměstnance);
- cz\_pensiontype (dduch) - Czech system types of pensions (druh důchodu);
- cz\_pensiont (duch) - Total amount received in pension benefits according to Czech types in cz\_pensiontype (důchod).

Size of the household - number of household members on the date of the interview, including persons temporarily away if the period of actual or foreseen absence is shorter than 6 months and the person has no other private address. For persons studying away from home, the period of absence may be longer than 6 months, provided that the person has no private address and retains financial ties to other household members. Persons with a period of absence longer than 6 months, persons without financial ties to the household and persons temporarily present at the time of the interview who have their private address elsewhere are excluded.

### 3.2 Sample quality and weights

- *Non-response*

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<sup>5</sup> Variables are reported at household level if not stated otherwise.



The fieldwork revealed that among the total of 14 134 dwellings in the sample there were 683 dwellings (4,8 %) unoccupied, unlocated or ineligible because the households had moved. Since there was no substitution for these ineligible units, the survey was conducted in 13 451 dwellings and 13 591 households (in some of the dwellings there is more than 1 household). The overview of the survey response can be summarised by the following table:

	Households			Response (%)		
	Total	1st wave	2nd-4th wave	Total	1st wave	2nd-4th wave
Response, total	11294	2072	9222	83,1	53,1	95,2
Non-response, total	2297	1830	467	100,0	100,0	100,0
Refusals (unwillingness to give information)	1638	1294	344	71,3	70,7	73,7
household not contacted, temporarily absent	454	361	93	19,8	19,7	19,9
household unable to respond (health limitation)	155	126	29	6,74	6,9	6,2
Other reasons (linguistic etc.)	50	49	1	2,2	2,7	0,2

Refusals also include situations when the household did not refuse the survey as such, but did not accept to provide the information on income to the extent, which would qualify the household as successfully interviewed. The definition of successfully interviewed household allowed missing income data for only one person provided that the person is not the head of the household.

Non-contacts, temporarily absent category cover situations when the interviewer did not establish contact with the selected household, despite having made the prescribed minimum number of attempts at personal contact.

Participation in this survey is voluntary, there is no duty imposed on households to provide the required information, like it is for example in the population census. The household must be informed about the content of the survey and that its participation is voluntary and left to its decision. The main reasons for refusal reported from the field are privacy reasons (objections against giving personal information and fear of abuse of the personal data), fear of contact with interviewers as strangers. There is a considerable group of persons, who as a matter of principle strictly refuse to give any information.

- **Weights**

When compared with data from other statistics and registers, selected characteristics of our sample showed that a phenomenon typical of household surveys had occurred - high level of non-response (influenced with a rotational panel by prior response) had biased the proportions in the final data file from which results are obtained.

The deformation of demographic characteristics and social structure of the sample did not allow us to use simple techniques of grossing up (post-stratification). Sufficient level of bias elimination is a necessary pre-condition for obtaining good estimates. In practice, standard methods of arriving at optimum grossed-up results are used - in our case, iteration method of weight calibration was utilized minimizing the difference between the known and the grossed up values of selected characteristics.



Because of the fact that results are required for both households and individual persons, the only satisfactory solution is the system of integrated weights, i.e. a single set of grossing-up coefficients used for both types of output (households/individuals). Although Living Condition (hereafter LC) is a panel survey comprising data coming from as many as four separate samples (1st - 4th wave), a simple calibration method was applied dealing with all the data the same as if they came from one wave only. Last year this method proved efficient and yielded the best results.

As the basis for calculations the following traditional calibration variables were used:

- Number of inhabited dwellings in each NUTS3 region, subdivided into family houses (detached and semi-detached houses) and apartments, based on the 2001 Census continuously updated from administrative sources of construction authorities
- Population characteristics:
- Population totals in each NUTS 3 region (from demographic statistics)
- Economic activity characteristics in each NUTS3 region:
- Number of pensioners (excl. pensions for orphans), based on the administrative data from social security administration
- Number of unemployed (registered unemployed from the administrative source of the Ministry of Labour and Social Affairs, corrected for unregistered unemployment using the Labour Force Survey data)
- Number of self-employed (estimate based on the Labour Force Survey)
- Number of children aged 0-15 (from demographic statistics)
- Demographic characteristics at the national level (based on the demographic statistics):
- Age groups (0-15, 16-24, 25-34, 35-44, 45-54, 55-64, 65+)
- Sex
- Municipality size (below 2 000 inhabitants, 2 000 - 9 999, 10 000-49 999, 50 000+ inhabitants)

Since the target population of the survey were persons living in private households, the data from demographic statistics were adjusted by subtracting institutionalised population (from social security administrative data) and persons in prisons. Additionally, because of high levels of immigration in 2007 (most of the immigrants live in lodging houses), an estimated number of those immigrants was subtracted who do not live in flats. As the sampling unit is the dwelling, all weight coefficients were calculated for dwellings and only subsequently assigned to all persons and households in them.

The method described above deals with non-response successfully, i.e. it corrects the bias due to similar composition of households that failed to respond. First of all, it improves demographic and social structure but, as a by-product, it also eliminates deformation of income indicators related to these structures.



### Descriptive Statistics of the Grossing-up weight

Number	2005	2007	2008
Mean	569.94	442.07	379.86
Median	520.55	396.13	337.54
Maximum	2600	3475	2875
Minimum	100	100	100
Max/Min	26.00	347.5	287.5
Decile 1	312.38	243.51	204.16
Decile 9	874.80	683.29	599.44
Dec 9 / Dec1	2.80	2.81	2.94

- ***Item non-response and under-reporting***

Another source of bias, which needs to be taken into account, stems from the interviewing. Data on income obtained during interviews with household members have the tendency to underestimate certain income sources or data on some income components can be altogether missing (item non-response). So as not to reduce the size of the processed dataset pointlessly the missing income was imputed using correct statistical methods.

In LC 2008 the number of cases in which the interviewer obtained most of the demographic characteristics but failed to receive a person's income data was very low. The missing income of such individuals was conjectured by the simple hot-deck method, i.e. it was replaced with income of another, randomly selected person with the same characteristics.

Underestimation of income is a natural consequence of the fact that respondents either tends to give lower than actual values or simply do not recall having had certain irregular or small incomes at all. It is, more or less, a non-sampling error, affected substantially by the incomes themselves and by their source. The possibilities to eliminate this underestimation of the survey data are limited. In the presented survey, only such adjustments were made where there was sufficiently reliable external statistical source or where the conjectures could be based on legislation.

Data on gross income from employment were compared with corresponding data from wage statistics broken into sectors of activity and, for those revisited in 2007 who stayed in their former job positions, with the data obtained in 2006. This analysis revealed that the underestimation level was almost 3 per cent on average, the bias being bipolar (some of the incomes actually obtained in the survey were overestimated). This measurement error was caused by reporting a certain income as net whilst gross income should have been reported. In all clear cases, therefore, appropriate corrections were applied. In the case of income from private enterprise, there was no need for corrections.

In the case of social benefits for which there is legal entitlement (parental leave benefit, child birth benefit, death grant provided to families of the deceased, to some extent also maternity leave benefit), a check on their receipt by eligible households was applied and amounts provided were corrected according to the amounts set by the legislation. With old age benefits (pensions from the social security system) the tendency to underestimation is negligible but provided there were falls in this kind of income without any outward reason, the amounts were corrected by the last year's values.

Amounts declared by the unemployed as unemployment benefits were again overestimated. Unemployed respondents tend to report their income from the social security system as unemployment benefits and do not distinguish them from the minimum income support benefits (claimed on the basis of legal minimum subsistence amounts). In cases where the duration of unemployment and the reported amounts did not match the rules of the unemployment benefits



provision, the reported amounts were re-classified as minimum income support benefits or other social benefits.

It was not possible to correct the underestimation of sickness benefits (where omissions related to short-term illnesses could not be identified on the existing data), means-tested social benefits whose claims depend on the previous income (prior to the income reference period), capital income, and non-monetary income generated by own-consumption.

Comparison of the aggregated income from this survey with the household sector aggregates of the national accounts (even after their modification taking into account the items, which are not covered by household income surveys) is relatively difficult. Concerning its aggregated value the income obtained by direct questioning in the households will always be lower. The more important fact for evaluation of their credibility is that the trend in development of household income is in line with the trends in the national accounts. From this viewpoint, the presented results of LC 2008 are reliable and, as to their time series, consistent.

### 3.3 Data adjustment

See above

### 3.4 Imputations and assumptions

- *Time period*

The household definition is based on the sharing of expenditures concept, in line with the definition of Paragraph 115 of the Civil Code - based on the declaration of the persons in sampled dwelling unit that they permanently live together and finance together expenditures to cover their needs. As the 16-year olds such persons were regarded who had reached this age by 31 December 2007.

Reference periods:

- Age: December 31<sup>st</sup>, 2007
- Other demographic variables - marital status, education, housing, financial situation: on the date of the interview
- Work activity of those who changed their job or economic status was collected for each individual month of 2007. If the work activity stayed the same all the year round, one (yearly) value was entered. Work activity figures are gathered by self-definition of the respondent (respondents themselves choose among different types of activity the one that fits their case the most). Its value depends primarily on the respondent's main occupation and on the time spent in it. Subsequently, other data was collected related to the respondent's work activity (status in employment, profession). At the same time, and also pertaining to individual months or as a year value, parallel activities were surveyed (second job, study) together with data on receipt of pensions and social benefits.
- Economic activity was not collected but derived from the monthly/yearly data (if monthly data was the basis, the activity with the highest incidence was coded as the yearly value). For those who completed their education in 2007 the latter half of the year was considered.
- Current employment variables (current employment status, occupation): on the date of the interview
- Income data (both monetary and in kind): calendar year 2007
- Subjective questions focused on housing and financial problems: on the date of the interview. Health problems: last twelve months.
- Housing, consumer durables, financial and social situation of household: on the date of the interview, unless the question specifically refers to some other period



- *Gross incomes*

Incomes related to household as a whole were collected at the household level: social benefits targeted at households, rental income and value of goods produced directly by the household through either a private or a professional activity (e.g. own production of food from farming).

Collected at individual level: income from employment (main job, secondary jobs), sickness benefits, old-age benefits, unemployment benefits, social benefits attributable at individual level (such as parental leave benefit or disability benefits) and other incomes (capital income, sales of property, insurance claims).

Income from employment (both main job and possible secondary jobs) was collected both either gross of tax and social insurance or net, incomes from non-employment contracted work only gross. Self-employed persons could choose from several ways to record the result of their enterprise. They could state the gross profit/loss according to their tax declaration, they could give the sum which served as the yearly basis for calculating their monthly health and social security contributions or could make their own estimate of their gross or net profit/loss. With family members co-operating in private enterprise run by another member of the family only proportionate part of the income from the business was entered. Rental income was collected either gross or net, based on what information respondents were able to provide. All other kinds of income were collected net and subsequently appropriate rules of the tax system were applied to estimate the gross amounts. In addition, the information was collected on claimed tax deductibles to enable calculation of taxes and social insurance contributions. Sum of individual net incomes then forms the main national indicator – net monetary income of household.

Besides this national indicator of household income, it was necessary to construct internationally comparable household income indicator, which is based on Eurostat methodology for EU-SILC surveys. This indicator is named “disposable household income”. The difference between these two definitions of household income is in inclusion/exclusion of certain components of income (received lump sum and irregular inter-household transfers, non-cash employment income, income from life insurance, regular taxes on immovables).

Household income in kind consists of consumption of food, products and services originating from the household's own productive activity and of perquisites provided by employers (company car and company-paid or co-financed meals). The CZK value of own-production in kinds was calculated from reported amounts using the average price of the given commodity (from the HBS). The value of a company car was arrived at by applying the rules of income tax system (the minimum monthly amount of CZK 1000 was entered). The contribution of the employer to the employee's meals was calculated using the number of meals, their actual price and the (lower) price that the employee paid for them. Because these contributions form an important part of employees' income, they are also tabulated under a separate heading (Tab 1a).

Detailed income components are presented in table 1. Many of the income components values are quite low. Therefore, the breakdowns in other tables are less detailed. Somewhat more detailed breakdowns are provided for gross income.

Selected income components:

- Income from employment: defined in line with the national tax law. Includes income from employment contract or similar arrangement between employer and employee. Also includes incomes of owners of the incorporated business from work for their company, income of members of statutory boards and other governing bodies of corporations, remuneration based on holding of elected public posts, income of apprentices in vocational schooling for their work undertaken as part of their practical training and income from flexible short-term contracts under special regime set in the Labour Code.
- Income from self-employment: includes also income from farming activities, if these are the professional activity, income from independent professional practices (lawyers, doctors) and income from intangible assets (copyrights).



Income from main employment: includes income of employees from their main job. In case of multiple coincident jobs, the declaration of the main job was left to the respondent.

- Income from secondary employment: includes salaries from secondary jobs, conducted besides the main job or self-employment activity of the respondent and income from flexible short-term contracts under special regime set in the Labour Code.

Income from secondary self-employment activity: analogous to the secondary employment income. It includes income from secondary self-employment activity undertaken in addition to the main job of the respondent (where respondent declared employment contract as his/her main job).

- Social income: is in principle net. Gross amounts were included only for rare cases of pensions above the tax-exempt limit. In these cases, tax was applied to the amount above this limit (CZK 198 thousand).  
Sickness benefits item includes all sorts of benefits from the social sickness insurance, i.e. also maternity leave benefit, reduced employment income compensation in pregnancy and motherhood, income support for persons caring for household member in the need of short-term care (mostly care for children during their illness).
- Other social support benefits include social benefits for foster parents taking care of adopted children, birth grants, death grants, and CZK 1000 grant for books and other equipment of children entering primary education.
- Other social benefits include certain benefits connected to the termination of employment in selected professions, various other social benefits like benefit for persons providing long-term homecare for their relative in need, support for care in spas and other social benefits for families with children, old and disabled citizens, which are mostly administered by the municipal authorities.
- Material indigence benefits include regular and lump sum monetary benefits that help the household pay their food and housing bills or contribute to satisfying their basic needs.  
Income from capital contains interest from savings, bonds and various forms of deposits, dividends from shares, profits from incorporated businesses, income from investments abroad.
- Other income includes income from occasional property rentals, life and material insurance, sale of own-produced goods, income from organisations not elsewhere classified (scholarships and pocket money of apprentices, grants from charity and non-governmental organisations), lottery winnings, prizes, pay for occasional not contracted jobs, regular inter-household transfers (alimonies and the like).

### 3.5 Updating

#### Updating factors

Updating factor	2007-2008	2007-2009	2007-2010	2007-2011	2007-2012	Source (notes on 2012 factors in the model):
upr_bch00	1.150	1.130	1.190	1.180	1.180	CSO: <a href="http://www.czso.cz/csu/2010edicniplan.nsf/publ/3202-10-rok_2010">http://www.czso.cz/csu/2010edicniplan.nsf/publ/3202-10-rok_2010</a> and previous years. Original source MPSV
upr_bchmt	0.999	1.055	1.092	1.591	1.591	
upr_bfafp	1.010	1.017	1.020	1.057	1.057	
upr_bfaot	0.876	0.860	0.860	0.859	0.859	
upr_bfapl	0.935	0.933	0.972	0.937	0.937	
upr_bho	1.388	1.778	2.166	2.422	2.422	MPSV, Published annually by the CSO <a href="http://www.czso.cz/csu/2010edicniplan.nsf/publ/3202-10-rok_2010">http://www.czso.cz/csu/2010edicniplan.nsf/publ/3202-10-rok_2010</a>
upr_bun	1.080	1.136	1.110	1.110	1.110	MPSV - Employment Services; Based on average monthly unemployment benefit paid to registered unemployed. Source:





<b>yivwg</b>	upr_yem	upr_yem	upr_yem	upr_yem	upr_yem	INCOME : Predicted wage
<b>yot</b>	upr_cpi	upr_cpi	upr_cpi	upr_cpi	upr_cpi	INCOME : other
<b>ypp</b>	upr_cpi	upr_cpi	upr_cpi	upr_cpi	upr_cpi	INCOME : Private Pension
<b>ypr</b>	upr_cpi	upr_cpi	upr_cpi	upr_cpi	upr_cpi	INCOME : Property
<b>yprrt</b>	upr_cpi	upr_cpi	upr_cpi	upr_cpi	upr_cpi	INCOME : Property : Rent
<b>ypt</b>	upr_cpi	upr_cpi	upr_cpi	upr_cpi	upr_cpi	INCOME : Private Transfers
<b>yse</b>	upr_cpi	upr_cpi	upr_cpi	upr_cpi	upr_cpi	INCOME : Self Employment
<b>ysepv</b>	upr_yempv	upr_yempv	upr_yempv	upr_yempv	upr_yempv	INCOME : Self Employment : Previous

Note: In many cases the use of updating factor is formally required by the model, although the actual amount is replaced with the simulated value in simulations.

## VALIDATION

### 3.1 Aggregate Validation

#### 3.1.1 Original income

[See tables in Appendix 1]

Tables 18 and 19 show, respectively, the number of recipients and the total amount of different sources or original income available in EUROMOD's input data. These incomes are used by the model but are not simulated.

Due to rounding differences the average amount of income sources in EUROMOD's input database are slightly different from those in the original EU-SILC. This is the case, for example, of employment and self-employment income. The number of recipients is different in case of those income sources that are reported in the EU-SILC at the household level and which were assigned to particular individuals in the EUROMOD input data, such as investment and property income.

#### Simulation of years 2007-2012

As commented in section 3, EUROMOD input data are adjusted for each policy year by updating factors that take into account average changes of each income source. Therefore, the number of recipients/payers of each income/benefit/tax is held constant in the EUROMOD input data.

#### 3.1.2 Pensions and benefits

##### 3.1.2.1 Disability, old-age, survivor and sickness benefits

[See tables in Appendix 1]

Tables 20 and 21 show the number of recipients and total amount of pensions and benefits that are not simulated by EUROMOD, but which are used for the calculation of disposable income as they are reported in the input database.

- Pensions: in aggregate terms, pensions seem to be well represented in the EU-SILC and EUROMOD input data. Significant difference appears only in the number of disability pensioners and the total amount of disability pensions paid in 2010 and 2011. The reason is the change in conditions for disability pension eligibility (and in the amount of these pensions) that was introduced in 2010. In general, the system of disability pension was made less generous in 2010, that's why the external statistics show decrease in both number of recipients and the amount of disability pensions.



In terms of pension amounts, there is also problem with survivor's pensions which are slightly underestimated.

- Sickness benefits: sickness benefits depend on previous wages of the employee and they appear in the total monthly pay-check sum and are not well recognised and not remembered by employees. It explains why the amount of sickness benefits is largely underreported in the SILC data.

### 3.1.2.2 Unemployment, Family, Housing and Social assistance benefits

[See tables in Appendix 1]

Tables 22 and 23 show the number of recipients and amount of social benefits simulated by the EUROMOD:

- Unemployment benefit: methods counting the number of recipients in EUROMOD and in external statistics are not strictly comparable. However, the comparison of total expenditures shows that aggregate results for these simulated benefits are very close to official statistics with the exception of 2009 and 2010. These years, the numbers from EUROMOD are underestimated, because there was huge increase in unemployment rate (5.44 % in 2008, 7.98 % in 2009 and 9.01 % in 2010) due to the economic recession.
- Child allowance: again, the number of recipients in EUROMOD is not strictly comparable to the external sources as units of analysis are different. However, the comparison of the total expenditure (which is not sensitive to the unit of analysis) shows that aggregate results for these simulated benefits are close to official statistics in 2007-2009. Values in 2010 and 2011, however, are overestimated. The reason is that the actual number of recipients is decreasing (as we can see from the external statistics), which is not captured by EUROMOD data from 2007.
- Social allowance: the number of recipients is overestimated in EUROMOD (which may be caused by non-take-up of this benefit in reality, which is not captured by EUROMOD), but the total amount of benefits received is well-simulated. In 2011, social allowance was restricted only to families with disabled or seriously ill child/children, and it is thus not simulated due to lack of information on disability status among children (while in the external data, there still some recipients left). In 2012, social allowance benefits was abolished.
- Parental allowances: results are stable and slightly overestimated.
- Birth grant: the number of recipients and overall amount is underestimated in comparison to the external statistics. This is universal benefit for newborn children and the number of newborns is underestimated in SILC data (e.g. compare 85 000 benefits paid in 2006 while the number of newborn reported by the CSO was 106 000). In 2011, the benefit became means-tested and paid only to first child in the family. For 2011, EUROMOD on the other hand overestimates number of recipients and the amount of benefit, probably because of some non-take-up of the benefit (the benefit became means-tested and thus some families may for example not know whether they are eligible).
- Social assistance: simulation doesn't capture the fall in the number of recipients in 2008 observed in external statistics. The overestimation in 2008 is probably due to the big change in unemployment rate between 2006 and 2008. In 2007 there were almost 371 000 of unemployed people (7,1 %) and in 2008 only 230 th. (4,4 %). This big change significantly affected the income situation of households, and of course, the volume of social transfers. The estimations for 2009 - 2011 are better, because there was an



increase in unemployment rate. There is also a problem of a non-take-up of social assistance benefits in the Czech Republic.

- Housing benefit: receipt is overestimated as the simulation does not account for benefit non-take-up, a similar problem has been found using the Czech national tax-benefit microsimulation model<sup>6</sup>. The overestimation of the number of recipients and expenditures worsens in 2008 as EUROMOD doesn't capture its important fall. The problem probably lies in the big change in the unemployment rate between 2006 and 2008.

### 3.1.3 Taxes and Social insurance contributions

[See tables in Appendix 1]

EUROMOD underestimates the total amount of taxes and contributions in 2007 – 2008 compared with external statistics. The problem is probably due to substantial decrease in unemployment rate implying that more people paying taxes. In 2009 - 2011, the estimates are closer due to changing situation in the labour market.

Next tables (24 and 25) show the number of contributions and amounts of social insurance contributions and taxes simulated by EUROMOD:

- Employee and employer contributions: according to results, the number of contributions simulated by EUROMOD is about right and the amounts as well.
- Self-employed contributions: EUROMOD captures the number of self-employed paying social contributions very well, but the main discrepancy between EUROMOD and external statistics is in the amount of social contributions by self-employed, which is clearly underestimated in EUROMOD. This may be caused by the fact that self-employed may in some cases participate in social and health contributions voluntarily (or pay higher amount than the minimum required), which is not simulated by the model.
- Income tax: Number of taxpayers paying income tax is well captured for 2007, but it is underestimated by EUROMOD in the subsequent years. The reason is that EUROMOD calculates the number of taxpayers as the number of individuals paying *positive* income tax (and this number decreased in 2008 significantly due to flat tax reform and increase in tax allowances), while in the external statistics the number of taxpayers is the number of employees or self-employed individuals, no matter whether they pay positive or zero taxes (there are no data on number of people paying *positive* income taxes). The amount of income tax is also slightly underestimated in EUROMOD (mainly for 2007 and 2008). This may be caused by some underreporting of incomes in SILC data.
- Property tax is underreported in EUROMOD for all year. Our interpretation is that individuals underreport their incomes and property taxes in the SILC. Moreover, the discrepancy between EUROMOD and external data becomes bigger in time, which may be caused by the fact that number of property owners increases over time.

## 3.2 Disposable income and Income distribution

### 3.2.1 Income distribution and inequality

[See tables in Appendix 1]

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<sup>6</sup> It is the micro-simulation model which has been prepared by the University of Economics, Prague for Ministry of Labour and Social Affairs.



Graph 1 compares the distribution of disposable income between EU-SILC and EUROMOD data. Larger differentials appear in case of very-low and very-high income households. In the former case, it is probably due to misreporting of some social transfers in the EU-SILC and not accounting for the non-take-up in EUROMOD (housing allowance, etc.). In the later case, underestimation is probably due to incomplete reflection of all possible tax base deductions due to lack of necessary information in the SILC data.

Table 26 provides the following indicators of income distribution: mean and median equivalised income<sup>7</sup> by gender, income quintile ratio, and Gini coefficient. Results are presented for three different “sources”: own calculations using EUROMOD baseline output, own calculations based on the original EU-SILC microdata, and statistics published by Eurostat based on the EU-SILC data (“External statistics”).

According to results, the mean and median equivalised disposable income in EUROMOD are slightly larger than in the original EU-SILC data among men and lower among women. There are three reasons possibly explaining the difference: a) inclusion of different sources in the definition of household disposable income (see Table 26 below), b) changes in the sample and in the weighting of observations, and c) changes in the amounts of some income sources (particularly taxes and benefits) due to its simulation in EUROMOD.

However, more surprising is the difference between the mean and median equivalised disposable income reported in Eurostat’s website and computed using the EU-SILC data. In principle, these figures are based on exactly the same data. Further analysis and contacts to Eurostat are to be carried out to find out the cause of such difference.

Nevertheless, EUROMOD simulations are quite close to statistics from the Eurostat’s website with mean and median income being slightly underestimated in 2007 and slightly overestimated in the following years.

Income inequality is slightly lower in EUROMOD when measured by the income quintile ratio and the Gini coefficient. This is consistent with results obtained in other countries. In the case of the Czech Republic, the larger number of recipients of housing benefit (which is basically concentrated among lower income families) is likely to be one of the factors reducing income inequality in EUROMOD simulations.

### 3.2.2 At-risk-of-poverty rates

[See tables in Appendix 1]

Table 27 provides at-risk-of-poverty rates using poverty lines based on 40, 50, 60 and 70% of the median equivalised disposable income<sup>8</sup>. As in case of income inequality indicators, results are presented for three different “sources”: (i) own calculations using EUROMOD baseline output, (ii) own calculations based on the original EU-SILC microdata, and (iii) statistics published by Eurostat based on the EU-SILC data.

According to results, at-risk-of-poverty rates are lower in EUROMOD (compared to both calculations based on EU-SILC data and external statistics from Eurostat), particularly when using lower poverty lines (40 and 50% of the median). As already suggested above, it is possible that the overestimation of housing benefits (given by very high non-take-up of this benefit in reality) contributes to this difference.

Table 27 shows the at-risk-of-poverty rates (using 60% of the median equivalised disposable income as poverty line) by age groups as well. In line with previous results, at-risk-of-poverty rates calculated using EUROMOD are lower than using the original data from the EU-SILC

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<sup>7</sup> Using the OECD modified equivalence scale.

<sup>8</sup> Using the OECD modified equivalence scale.



with one exemption: individuals aged 50-64 years. EUROMOD simulated at-risk-of-poverty rate is underestimated the most among children aged 0-17.

### **Validation of 2007-2010 simulations: at-risk-of-poverty rates**

As already commented above, EUROMOD underestimates the at-risk-of-poverty rates when using poverty lines of 40% of median equivalised income. Table 27 suggests that the problem is the worst in 2009, where EUROMOD simulates at-risk-of-poverty rates that are half the ones from the external statistics. This is caused by the fact that while external statistics indicate the change in declining trend (using 40, 50 and 60% of the median) in 2009, EUROMOD simulates the increase of at-risk-of-poverty rates a year later (in 2010).

### **3.3 Summary of “health warnings”**

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

The SILC sample is relatively small. Care should be taken in interpreting results for small population sub-groups.

The weights do not control for differential non-response according to any dimension.

There is underreporting by people with higher incomes and those with higher share of self-employment income and incomes from investment. Incomes of self-employed are in principle not very reliable figures since some portion of accounting expenditure made by self-employed effectively covers common living expenditures.

Sickness insurance benefits are substantially underreported in the SILC since people do not recognize them easily in their pay-checks. Information in the SILC does not allow for well-informed simulations of these benefits.

Some segments of the population are not sufficiently represented in the SILC sample (minorities, foreigners, home-less).

Some values of some observations are imputed already by the Statistical Office and cannot be disentangled from released data.

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## APPENDIX 1: MACRO VALIDATION TABLES

Table 18: Original income by sources: number of recipients (in thousands)

	EUROMOD Simulation						External statistics					Ratio					EU-SILC 2007	
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011 <sup>#</sup>	2007	2008	2009	2010	2011	2007	ratio
<b>Original income</b>	5,574	5,574	5,574	5,574	5,574	5,574											5,390	103%
Employment	4,259	4,259	4,259	4,259	4,259	4,259	4,241	4,348	4,243	4,154	4,137	100%	98%	100%	103%	103%	4,259	100%
Self-employment	872	872	872	872	872	872	845	856	868	905	935	103%	102%	101%	96%	93%	872	100%
Investment	1,003	1,003	1,003	1,003	1,003	1,003											600	167%
Property	285	285	285	285	285	285											164	174%
Private pension	41	41	41	41	41	41											41	100%
Private transfers	349	349	349	349	349	349											349	100%
Paid private transfers	316	316	316	316	316	316											316	100%
<b>In-kind income</b>																		
Fringe benefits	2,453	2,453	2,453	2,453	2,453	2,453											2,453	100%
<b>Imputed housing</b>	6,086	6,086	6,086	6,086	6,086	6,086											3,857	158%

## Notes:

(s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

# External statistics for 2012 are not available (this holds for all incomes and recipients except for number of payments of social contributions - see table 24).

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2008 and official statistics from section 1.


**Table 19: Original income by sources: overall amount (in millions of CZK)**

	EUROMOD Simulation						External statistics					Ratio					EU-SILC	
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	ratio
<b>Original income</b>	1,199,890	1,289,586	1,325,125	1,348,682	1,336,505	1,365,353											1,240,900	97%
Employment	942,645	1,016,187	1,050,012	1,070,388	1,051,992	1,074,615	1,139,498	1,212,420	1,192,496	1,195,121	1,235,401	83%	84%	88%	90%	85%	974,863	97%
Self-employment	230,633	245,116	246,652	249,505	255,080	260,661	77,667	88,310	86,512	83,854	75,284	297%	278%	285%	298%	339%	238,516	97%
Investment	14,689	15,612	15,710	15,891	16,246	16,602											15,191	97%
Property	8,827	9,381	9,440	9,549	9,762	9,976											9,128	97%
Private pension	1,223	1,300	1,308	1,323	1,352	1,382											1,265	97%
Private transfers	10,366	11,017	11,086	11,215	11,465	11,716											10,721	97%
Paid private transfers	8,493	9,027	9,083	9,188	9,394	9,599											8,784	97%
<b>In-kind income</b>																		
Fringe benefits	18,059	19,193	19,313	19,537	19,973	20,410											18,676	97%
Imputed housing	26,506	28,170	28,347	28,675	29,315	29,957											27,412	97%

**Notes:**

(s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2008 and official statistics from section 1.


**Table 20: Disability, old-age, survivor and sickness benefits: number of recipients (in thousands)**

	EUROMOD Simulation						External statistics					Ratio					EU-SILC	
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	Ratio
<b>Pensions</b>	2,757	2,757	2,757	2,757	2,757	2,757	2,719	2,754	2,790	2,819	2,873	101%	100%	99%	98%	96%	2,757	100%
<b>Old-age</b>	2,106	2,106	2,106	2,106	2,106	2,106	2,029	2,066	2,108	2,260	2,340	104%	102%	100%	93%	90%	2,106	100%
Old-age pension																		
<b>Disability</b>	655	655	655	655	655	655	587	589	586	466	445	112%	111%	112%	140%	147%	655	100%
Disability pension																		
<b>Survivor's</b>	646	646	646	646	646	646	732	728	725	720	716	88%	89%	89%	90%	90%	646	100%
Survivor's pension																		
Funeral grant																		
<b>Sickness</b>	684	684	684	684	684	684	2,727	2,222	1,442	1,325	1,269	25%	31%	47%	52%	54%	684	100%

**Table 21: Disability, old-age, survivor and sickness benefits: overall amount (in millions of CZK)**

	EUROMOD Simulation						External statistics					Ratio					EU-SILC	
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	Ratio
<b>Pensions</b>	288,027	317,433	330,112	330,448	342,963	347,571	282,876	305,536	331,705	340,162	359,234	102%	104%	100%	97%	95%	297,871	97%
<b>Old-age</b>	216,852	238,941	249,032	250,965	261,601	265,071	203,933	222,105	243,636	265,985	284,614	106%	108%	102%	94%	92%	224,264	97%
Old-age pension																		
<b>Disability</b>	53,841	59,445	61,267	59,539	60,534	61,395	53,674	57,398	60,989	47,682	47,451	100%	104%	100%	125%	128%	55,681	97%
Disability pension																		
<b>Survivor's</b>	17,333	19,047	19,813	19,944	20,828	21,105	25,269	26,033	27,080	26,549	27,169	69%	73%	73%	75%	77%	17,926	97%
Survivor's pension																		
Funeral grant																		
<b>Sickness</b>	14,019	14,900	14,993	15,166	15,505	15,845	34,671	31,882	26,033	22,789	21,505	40%	47%	58%	67%	72%	14,498	97%

Notes: (s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2008 and official statistics from section 1.


**Table 22: Unemployment, Family, Housing and Social assistance benefits: number of recipients (in thousands)**

	EUROMOD Simulation						External statistics					Ratio					EU-SILC 2007	Ratio
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011		
<b>Unemployment</b>	242	242	242	242	242	242	103	104	188	163	132	235%	233%	129%	149%	183%	242	100%
<b>Family</b>	1,344	1,059	1,040	1,029	950	998											1,078	125%
(s) Child Allowance	1,007	508	487	478	482	549	1,670	888	682	530	484	60%	57%	71%	90%	100%		
(s) Social Allowance	363	272	260	255	0	0	241	166	146	148	26	151%	164%	178%	172%	0%		
Foster Care benefits	4	4	4	4	4	4												
(s) Parental Allowance	371	371	371	371	371	371	339	358	362	337	323	109%	104%	102%	110%	115%		
(s) Birth Grant	94	94	94	94	33	33	114	119	118	118	22	82%	79%	79%	79%	152%		
<b>Social assistance</b>	126	123	121	118	144	162	72	66	72	91	101	175%	187%	168%	130%	142%	120	106%
(s) Regular Social Assistance Benefits	117	114	110	107	134	152	72	66	72	91	101	163%	174%	153%	117%	132%		
(s) Supplement for Housing	73	68	65	63	71	79	25	21	19	23	26	291%	325%	334%	273%	271%		
(s) <b>Housing Benefit</b>	192	217	362	374	436	502	115	86	94	119	143	167%	253%	385%	315%	306%		

Notes:

(s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2009 and official statistics from section 1.


**Table 23: Unemployment, Family, Housing and Social assistance benefits: overall amount (in millions of CZK)**

	EUROMOD Simulation						External statistics					Ratio					EU-SILC	
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	Ratio
<b>Unemployment</b>	6,408	6,585	7,793	8,054	8,281	8,506	7,016	7,115	15,078	13,355	10,349	91%	93%	52%	60%	80%	5,559	115%
<b>Family</b>	51,073	46,298	45,786	45,634	41,850	36,110	46,974	40,338	38,853	37,331	31,343	109%	115%	118%	122%	134%	44,339	115%
(s) Child Allowance	8,787	5,814	5,490	5,387	5,427	6,308	10,260	6,255	4,754	3,875	3,496	86%	93%	115%	139%	155%		
(s) Social Allowance	4,387	3,244	3,085	3,036	0	0	4,626	3,192	2,980	3,117	795	95%	102%	104%	97%			
Foster Care benefits	384	388	391	392	406	406	774	847	927	1,009	1,066	50%	46%	42%	39%	38%		
(s) Parental Allowance	33,713	33,794	33,794	33,794	33,794	27,173	28,708	28,325	28,613	27,765	25,693	117%	119%	118%	122%	132%		
(s) Birth Grant	1,725	1,241	1,241	1,241	440	440	2,606	1,718	1,579	1,565	292	66%	72%	79%	79%	151%		
<b>Social assistance</b>	3,737	3,671	3,543	3,515	4,839	6,069	3,287	2,794	3,089	3,882	4,982	114%	131%	115%	91%	97%	3,972	94%
(s) Regular Social Assistance Benefits	2,921	2,863	2,777	2,759	4,031	5,090	2,593	2,176	2,328	2,862	3,820	113%	132%	119%	96%	106%		
(s) Supplement for Housing	816	808	766	756	808	979	524	473	512	686	850	156%	171%	150%	110%	95%		
(s) <b>Housing Benefit</b>	2,569	3,499	6,678	6,981	8,887	10,811	1,565	1,619	2,280	3,521	4,625	164%	216%	293%	198%	192%		

Notes:

(s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2009 and official statistics from section 1.



Table 24: Taxes and social insurance contributions: number of payments (in thousands)

	EUROMOD Simulation						External statistics						Ratio					EU-SILC 2007	Ratio			
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011			2012		
(s) <b>Income tax + contributions</b>	5,407	5,351	5,351	5,351	5,351	5,351														2,956	191%	
<b>Social contributions</b>																						
(s) Employer	4,259	4,259	4,259	4,259	4,259	4,259	4,125	4,196	4,155	4,273	4,293	4,268	103%	101%	102%	100%	99%	100%				
(s) Employees	4,259	4,259	4,259	4,259	4,259	4,259	4,125	4,196	4,155	4,273	4,293	4,268	103%	101%	102%	100%	99%	100%				
(s) Self-employed	872	870	870	872	872	872	797	807	888	887	857	836	109%	108%	98%	98%	102%	104%				
(s) <b>Income tax</b>	4,923	4,133	4,168	4,177	4,226	4,164	4,922	5,002	4,934	4,885	4,904		100%	83%	84%	86%	86%					
(s) <b>Taxable income</b>	5,122	5,144	5,149	5,149	5,107	5,108	4,922	5,002	4,934	4,885	4,904		104%	103%	104%	105%	104%					
<b>Property tax</b>	2,452	2,452	2,452	2,452	2,452	2,452	3,364	3,494	3,672	3,773	3,864		73%	70%	67%	65%	63%			2,452	100%	

Notes:

(s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2009 and official statistics from section 1.

Table 25: Taxes and social insurance contributions: overall amount (in millions of CZK)

	EUROMOD Simulation						External statistics					Ratio					EU-SILC 2007	Ratio				
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011						
(s) <b>Income tax + contributions</b>	295,372	293,022	283,923	291,133	293,786	294,630	357,314	353,190	330,420	332,899	338,878		83%	83%	86%	87%	87%			273,656	108%	
<b>Social contributions</b>																						
(s) Employer	329,926	353,305	355,075	363,672	357,454	364,073	359,493	375,400	338,456	349,228	372,760		92%	94%	105%	104%	96%					
(s) Employees	118,207	126,493	115,166	117,934	115,935	118,129	127,661	133,300	113,628	116,932	120,400		93%	95%	101%	101%	96%					
(s) Self-employed	52,140	58,615	55,839	57,181	59,877	60,503	86,262	86,961	100,185	96,137	96,166		60%	67%	56%	59%	62%					
(s) <b>Income tax</b>	125,025	107,914	112,917	116,018	117,974	115,998	143,391	132,929	116,607	119,830	122,312		87%	81%	97%	97%	96%					
(s) <b>Taxable income</b>	1,025,036	1,625,862	1,663,499	1,695,304	1,675,410	1,710,521																
<b>Property tax</b>	1,197	1,272	1,280	1,295	1,323	1,352	5,123	5,195	6,361	8,747	8,568		23%	24%	20%	15%	15%			1,238	97%	

Notes:

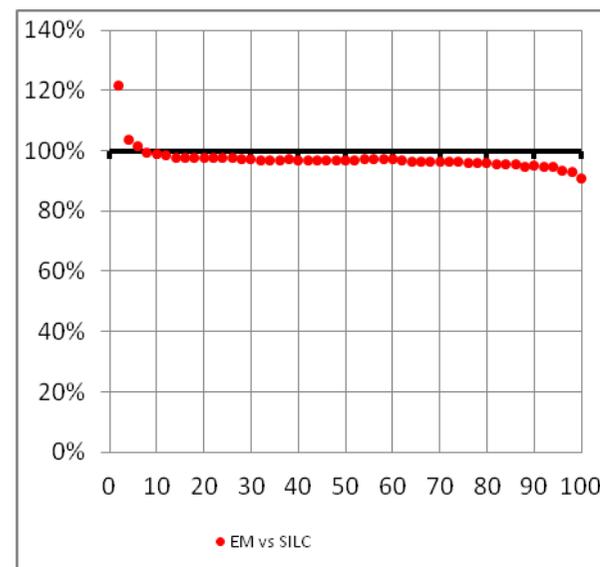
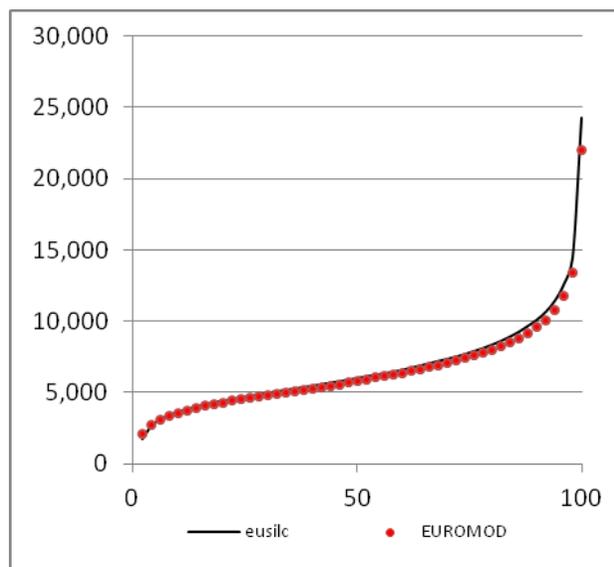
(s) stands for simulated tax or benefit.

\* red numbers stand for significant over or under estimation of EUROMOD results in comparison to external statistics.

Sources: EUROMOD results based on simulations, own calculations using EU-SILC 2009 and official statistics from section 1.



Graph 1. Distribution of equivalised disposable income: EUROMOD and EU-SILC 2008



Distribution of equivalised disposable income in EUROMOD and EU-SILC by percentile

Distribution of difference between EUROMOD and EU-SILC equivalised disposable income by percentile

Sources: EUROMOD results based on simulations and on own calculations using EU-SILC 2008.



**Table 26: Income inequality**

	EUROMOD Simulation						External statistics				Ratio			
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2007	2008	2009	2010
<b>Mean income (equivalised)</b>														
total population	6,488	8,550	8,231	8,397	8,832	8,566	6,810	8,262	7,981	8,440	95%	103%	103%	99%
males	6,633	8,743	8,416	8,586	9,020	8,750	6,975	8,432	8,159	8,637	95%	104%	103%	99%
females	6,350	8,366	8,055	8,216	8,653	8,391	6,652	8,100	7,810	8,249	95%	103%	103%	100%
<b>Median income (equivalised)</b>														
total population	5,823	7,640	7,344	7,504	7,909	7,640	6,068	7,295	7,058	7,451	96%	105%	104%	101%
males	5,990	7,847	7,556	7,719	8,112	7,831	6,215	7,478	7,220	7,644	96%	105%	105%	101%
females	5,667	7,445	7,148	7,286	7,698	7,437	5,892	7,114	6,900	7,274	96%	105%	104%	100%
Income quantile ratio (S80/S20)	3.22	3.24	3.23	3.23	3.19	3.17	3.40	3.50	3.50	3.50	95%	92%	92%	92%
<b>Gini Coefficient</b>	23.58	23.82	23.80	23.81	23.48	23.47	24.70	25.10	24.90	25.20	95%	95%	96%	94%

Notes:

Sources: EUROMOD results are based on simulations. Own calculations are using EU-SILC 2008 and official statistics from Eurostat's website [http://epp.eurostat.ec.europa.eu/portal/page/portal/income\\_social\\_inclusion\\_living\\_conditions/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/data/database)


**Table 27: At-risk-of-poverty rates: using different poverty lines**

	EUROMOD Simulation						External statistics				Ratio			
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2007	2008	2009	2010
<b>40% median HDI</b>														
Total	1.42	1.46	1.45	1.46	1.43	1.40	2.30	2.20	2.90	2.80	62%	67%	50%	52%
Males	1.62	1.62	1.58	1.59	1.54	1.48	2.40	2.20	2.70	2.70	68%	74%	59%	59%
Females	1.22	1.31	1.33	1.33	1.32	1.31	2.20	2.20	3.00	2.90	56%	60%	44%	46%
<b>50% median HDI</b>														
Total	3.99	3.84	3.83	3.94	4.04	3.71	4.70	4.60	5.20	5.10	85%	84%	74%	77%
Males	4.15	3.99	3.98	4.12	4.28	3.92	4.80	4.40	5.10	4.90	86%	91%	78%	84%
Females	3.84	3.70	3.68	3.76	3.82	3.52	4.70	4.70	5.40	5.30	82%	79%	68%	71%
<b>60% median HDI</b>														
Total	8.40	8.11	7.72	7.97	7.69	7.60	9.00	8.60	9.00	9.80	93%	94%	86%	81%
Males	7.63	7.42	7.21	7.38	7.26	7.12	8.00	7.50	8.00	8.90	95%	99%	90%	83%
Females	9.13	8.77	8.21	8.54	8.10	8.05	10.10	9.50	10.00	10.60	90%	92%	82%	81%
<b>70% median HDI</b>														
Total	15.79	15.36	15.44	15.48	14.86	14.24	16.50	16.10	15.50	16.60	96%	95%	100%	93%
Males	13.79	13.34	13.55	13.54	13.31	12.72	14.00	14.10	13.60	14.60	98%	95%	100%	93%
Females	17.70	17.29	17.24	17.34	16.33	15.69	18.80	18.10	17.30	18.50	94%	96%	100%	94%
<b>60% median HDI</b>														
0-17 years	10.90	11.02	11.21	11.26	11.57	11.54	13.20	13.30	14.30	15.20	83%	83%	78%	74%
18-24 years	10.94	10.00	9.44	10.05	10.68	10.18	11.60	11.00	11.20	12.70	94%	91%	84%	79%
25-49 years	7.81	7.55	7.34	7.51	7.46	7.30	8.30	7.10	8.00	9.10	94%	106%	92%	82%
50-64 years	7.20	6.94	6.21	6.56	6.04	5.90	6.80	6.90	6.80	7.40	106%	101%	91%	89%
65+ years	6.92	6.46	5.51	5.84	3.99	4.31	7.40	7.20	6.80	6.60	94%	90%	81%	89%

\* Using as poverty line 60% of equivalised disposable income (EDI)

Sources: EUROMOD results are based on input data. Own calculations are using EU-SILC 2008 and official statistics from Eurostat's website

[http://epp.eurostat.ec.europa.eu/portal/page/portal/income\\_social\\_inclusion\\_living\\_conditions/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/data/database)