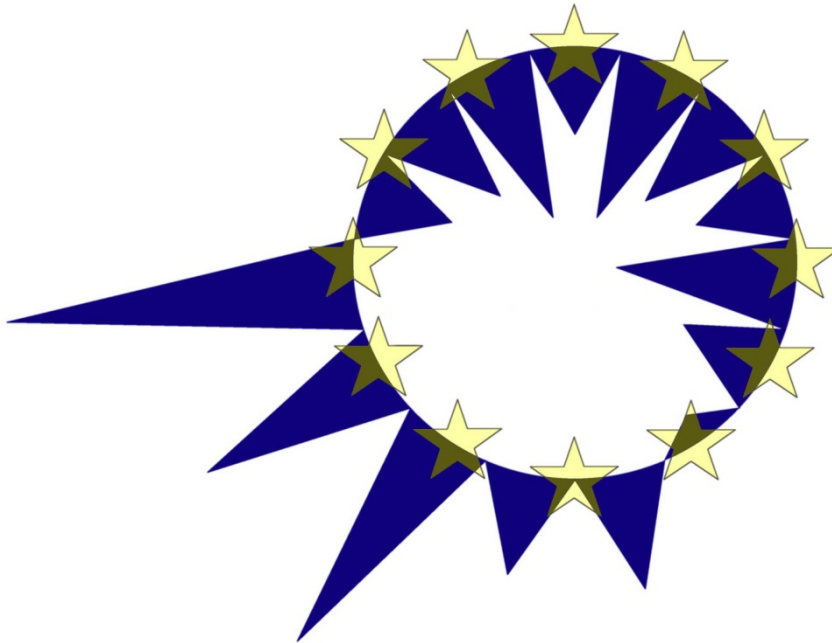


EUROMOD

COUNTRY REPORT



GREECE (EL)

2009-2012

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19/02/13



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 Greece. This work was carried out by the EUROMOD core developer team, based mainly in ISER at the University of Essex, in collaboration with a national team.

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

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

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

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

The seven-year Programme targets all stakeholders who can help shape the development of appropriate and effective employment and social legislation and policies, across the EU-27, EFTA-EEA and EU candidate and pre-candidate countries.

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

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

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



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ACRONYMS

<i>ΕΓΣΣΕ</i>	National General Collective Labour Agreement
<i>ΕΚΑΣ</i>	Pensioners' social solidarity benefit
<i>ΕΤΕ</i>	National Bank of Greece
<i>ΙΚΑ</i>	Private sector workers' social insurance fund
<i>ΜΤΠΥ</i>	Civil servants' additional benefits fund
<i>ΟΑΕΑ</i>	Manpower Employment Organisation
<i>ΟΑΕΕ</i>	Own account and self-employed workers' fund (merger of ΤΕΒΕ, ΤΑΕ, ΤΣΑ)
<i>ΟΓΑ</i>	Farmers' social insurance fund
<i>ΟΕΕ</i>	Workers' Home Organisation
<i>ΟΕΚ</i>	Workers Housing Organisation
<i>ΟΠΙΑΔ</i>	Civil servants' sickness insurance fund
<i>ΤΑΕ</i>	Self-employed workers' fund
<i>ΤΑΠ-ΟΤΕ</i>	Hellenic Telecommunications Organisation's fund
<i>ΤΕΑΔΥ</i>	Civil servants' supplementary pension fund
<i>ΤΕΒΕ</i>	Own account workers' fund, except for the "liberal professions" such as lawyers, engineers, doctors
<i>ΤΠΔΥ</i>	Civil servants' fund
<i>ΤΣΑ</i>	Self-employed workers' fund
<i>ΤΣΔΥ</i>	Medical doctors' social insurance fund



1. BASIC INFORMATION

1.1 Basic figures

Table 1.1 Basic figures

	Pop. (m.)	pop. < 18 (%)	pop. ≥ 65 (%)	Life expect. (years)	Fertility rate	Unemp rate	GDP per head (PPP)	Currency	
								Name	exch. rate
2009	11,260,402	19.4	18.7	77.8 (men) 82.7 (wom)	1.52	9.5	94 ^(p)	€	n/a
2010	11,305,118	n/a	18.9	78.4 (men) 82.8 (wom)	1.51	12.6	90 ^(p)	€	n/a
2011	11,309,885	n/a	19.3	78.5 (men) 83.1 (wom)	1.43	17.1	82 ^(p)	€	n/a
2012	11,290,935 ^(p)	n/a	19.7 ^(p)	n/a	n/a	n/a	n/a	€	n/a

Source: Eurostat (2012)

1.2 The tax-benefit system

Table 1.2. Tax-benefit system and government budget

	Total general government revenue ^[2] % of GDP	Total tax revenue ^[1] % of GDP	Total general government expenditure ^[2] % of GDP	Social protection ^[2] % of GDP
2009	38.3	30.4	54.0	28.0
2010	40.6	30.9	51.5	29.1
2011	42.3	31.2	51.8	n/a
2012	n/a	n/a	n/a	n/a

Source: ^[1]OECD (2012); ^[2] Eurostat (2012)

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

	Sickness/ health care	Disability	Old age	Survivors	Family/ children	Unemployment	Housing	Social exclusion
2009	29.1	4.7	41.4	8.2	6.7	5.9	1.8	2.1
2010	29.2	4.7	42.3	8.2	6.4	6.1	1.4	2.2
2011	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: Eurostat (2012)



Table 1.4 Taxation (as % of total tax receipts)

	Personal income tax	Corporate income tax	Social security contributions		Taxes on goods and services	Other taxes
			Employees*	Employers		
2009	16.4	8.1	12.6	15.7	35.9	4.8
2010	14.1	7.8	13.2	16.3	39.0	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a

* Does not include self-employed

Source: OECD (2012)

1.2.1 Basic information about the tax-benefit system

- The tax-benefit system is a unified, national system.
- The fiscal year runs from 1st January to 31st December.
- The public pension system in Greece is the cumulative product of a series of fragmentary measures and legislative initiatives. This fragmentation can be seen in terms of the following dimensions:
 - *Organisational arrangements by sector of employment.* The provision of pension varies by occupation or profession of the insured. They are provided by a multiplicity of social insurance agencies or “funds”. The conditions of pension provision (retirement ages, replacement rates, contributions etc.) vary significantly, chiefly by pension fund, though there remains considerable variability within funds by occupational subgroups.
 - *Differences by date of first contact with the system.* A new system was created for those entering the labour market after 1st January 1993, which is essentially uniform for the non-rural social insurance sector. The general retirement age for those who began working after this date is 65, for both men and women.
- Minimum school leaving age is 15.
- The definition of dependent children varies. Two examples are listed below:
 - dependent children for non-contributory large family benefits are defined as (a) unmarried, aged under 23, (b) suffering from any kind of disability over 67% irrespective of age.
 - dependent children for taxation purposes are defined as: (a) unmarried, aged under 18, (b) unmarried, aged under 20 and registered in OAEΔ as unemployed, (c) unmarried, aged under 25 and enrolled in post secondary or tertiary education or fulfilling their military service, (d) unmarried, aged under 27, enrolled in post secondary or tertiary education and registered in OAEΔ as unemployed, (e) suffering from any kind of disability over 67% irrespective of age.
- Any single person with never-married children living in the household, whatever their age, is considered to be a lone parent.



- Even though spouses file a joint tax report, their income is taxed individually. Some tax allowances and tax credits are shared between spouses in proportion to their taxable income.
- Taxable income is reported under various categories namely employment, property, investments, commerce, agriculture and professions. These income sources are added together before allowances and deductions are taken into account in order to derive total taxable income. Corporate profits are taxed at a flat rate. Different rules and tax rates also apply to gains from the sale of real estate located in Greece.
- All employees and self-employed are required by law to file a tax return in spring of year x for fiscal year $x-1$. When the tax return is cleared, a supplementary tax may be due. The supplementary tax can be negative (i.e. when one's tax withholdings exceed one's final income tax liability), but is usually positive. Tax withholdings are designed in such a way that taxpayers whose sole source of income is dependent employment with a single employer find that tax withheld matches their entire tax liability (i.e. their supplementary tax is zero).
- There is no single indexing regime for taxes and benefits. Most of them are updated once a year. However, indexation of benefits is usually ad hoc and sometimes skipped altogether. Revaluation policy is erratic, with some benefits receiving higher rises than others, for no apparent reason and with no explanation given.
- Income thresholds for some benefits often fail to keep pace with inflation or are left unchanged in nominal terms. Moreover, the income concept applied when assessing claims varies between benefit agencies. These practices often give rise to inconsistencies and distortions of the original benefits' design.
- All tax and benefit rates provided below are those valid in 30th June of each respective year.

1.3 Minimum wage

The system for setting wages is different for workers in the private sector and workers in the public sector. In the public sector pay is determined by law, according to the government's annual income policy. Various levels of minimum wage are set, depending on level of education, years of service and hierarchical grade etc.

In the private sector, collective agreements set wages at various levels (national, per sector, enterprise-level). The basis for setting wages is the National General Collective Labour Agreement (*ΕΓΣΣΕ*), which sets the overall minimum wages for white and blue-collar workers. The amount of minimum pay varies depending on a worker's years of service and family status. On the sectoral level, the industry-wide collective agreements set minimum levels for the workers that they cover. Finally, enterprise-level agreements set minimum wages for workers in individual enterprises. Sectoral and enterprise-level agreements are not allowed to contain less favourable provisions than the *ΕΓΣΣΕ*'s. For more information, see section 2.3.

1.4 Social Benefits

Social insurance benefits in Greece can be divided into two main categories: *contributory* and *non-contributory* benefits.



Contributory benefits are related to employment and are financed via employer, employee and self-employed contributions. Access to benefits is dependent on claimants' contributory record and the occurrence of a specified contingency such as retirement or unemployment. They are provided by social insurance agencies or "funds" (i.e. semi-autonomous entities created for that purpose) and are, as a rule, positively related to previous earnings.

Non-contributory benefits, funded out of general taxation, can be distinguished into income-tested *social* assistance and non-income-tested *categorical* or *universal benefits*. The latter may also be granted on the basis of a specified contingency (such as disability or birth of a child).

1.4.1 Retirement benefits

Retirement benefits form the backbone of social protection in Greece. They are provided by a multiplicity of social insurance funds, mostly operating earnings-related, pay-as-you-go schemes, with different eligibility conditions applying for different categories of workers. Almost one third of all social insurance primary pensions are awarded in the event of either invalidity or widowhood, split evenly between these two types of retirement benefits, with the remaining being old age pensions. Most pensions are contributory.

The vast majority of pensions are provided by three funds: *IKA*, *OΓΑ* and *OΑΕΕ*. On the other hand, state pensions are received by retired civil servants and other beneficiaries (except employees of public enterprises who are organised separately). Apart from the primary insurance funds (typically offering replacement of up to 80%), there are also auxiliary insurance funds (offering replacement rates of up to 20%) and "welfare" funds (offering lump-sum severance payments on retirement).

With the exception of social pension which is not taxed, retirement benefits are taxable. Until 2009 they were paid 14 times per year. Since 1st January 2010 they are paid 12 times per year, with the exception of social pension, farmers' basic pension, invalidity pensions and pensions that do not exceed €400 per month. Pensioners above 60 with average pensions plus bonuses less than €2,500 per month, whose 13th and 14th pensions were withdrawn, receive €200 as Easter bonus, €200 as vacations bonus and €400 as Christmas bonus. If average pensions plus bonuses exceed €2,500 per month, bonuses are provided up to the approach of that threshold.

The most important *contributory retirement benefits* are as follows.

***IKA* old-age pension (σύνταξη γήρατος *IKA*)**

IKA is the social insurance fund for most dependent workers outside the civil service, banks and the utilities. In 2005 *IKA* accounted for 1,991,000 active contributors and 918,600 pensioners.

For workers first insured *before 1st January 1993*, the standard age of retirement is 65 for men and 60 for women, but various exceptions apply, e.g. for mothers of under-age children, workers in hard and arduous occupations etc. Pension benefits are calculated on the basis of (a) contributions record of at least 15 years, and (b) pensionable earnings calculated as the best five years of the decade prior to retirement. Those with a contributions record of at least 35 years are eligible for a *seniority pension* at 80% of pensionable earnings, irrespective of age. A *reduced pension* may be granted from the age of 55 (for women) or 60 (for men), provided they meet the contributions requirement. In case of early retirement, the pension is reduced by a rate equal to the number of months missing to the standard age of retirement, divided by 267. A *minimum pension* is paid to retirees whose contributions record and pensionable earnings would have entitled them to an "organic amount" below a certain level. In 2005, the level of *IKA* minimum pension was €11.77 per month.

For workers first insured *after 1st January 1993*, the standard age of retirement is 65 for both women and men. Pension benefits are calculated on the basis of (a) contributions record of at least 15 years, and (b) pensionable earnings calculated as the last five years prior to retirement.



The accrual rate is 2%. Those with a contributions record of at least 37 years are eligible for a *seniority pension* at 70% of pensionable earnings, irrespective of age. A *reduced pension* may be granted from the age of 60, for those with a contributions record of at least 15 years or from the age of 55, for those with a contributions record of 35 years. In case of early retirement, the pension is reduced by a rate equal to the number of months missing to the standard age of retirement, divided by 267. A *minimum pension* is paid to retirees whose contributions record and pensionable earnings would have entitled them to an “organic amount” below a certain level, set at 70% of the minimum wage.

IKA survivors' pension

In case of death of an insured worker or pensioner, the closest relatives may be entitled to a survivors' pension. Beneficiaries include: a) the surviving spouse; b) the worker's or pensioner's children – provided they are unmarried, do not work, do not receive a pension and are aged below 18 years (24 if in full-time education); c) the worker's or pensioner's adult children – provided they are disabled or unfit for employment and whose disability started before they were 18; d) the worker's or pensioner's grandchildren – provided they are orphaned and were supported by the deceased; e) the worker's or pensioner's parents – provided they were supported by the deceased. The level of *IKA* survivor's pension depends on the person(s) entitled to it. It varies from 20% to 100% of the pension of the deceased (i.e. 70% of the pension of the deceased if the beneficiary is only the spouse, 90% of the pension if the beneficiaries are the spouse and one child- 70% for the spouse and 20% for the child-, 100% if the beneficiaries are the spouse and two children- 63.64% for the spouse and 18.18% for each child etc).

For workers first insured *after 1st January 1993*, only the surviving spouse and orphaned children may be beneficiaries, while they are entitled to 50% of the pension of the deceased.

OAEF old age pension (σύνταξη γήρατος OAEF)

OAEF is the social insurance fund for most self-employed workers, except those in the “liberal professions” of medicine, law and engineering. In 2005 *OAEF* accounted for 827,267 active contributors and 278,912 pensioners.

For workers first insured *before 1st January 1993*, the standard age of retirement is 65 for those with a contributions record of at least 15 years, or 60 for those with a contributions record of 35 years. From 2007 all self-employed workers insured with *OAEF*, irrespective of the date they were first insured, are placed in 14 insurance classes (1-10 compulsory, 11-14 optional). Contribution rates and pension benefits rise with insurance class.

For self-employed workers first insured *after 1st January 1993*, the standard age of retirement is 65 for both women and men. Pension benefits are calculated on the basis of (a) contributions record of at least 15 years, and (b) pensionable earnings calculated as the last five years prior to retirement. The accrual rate is 2%. Those with a contributions record of at least 37 years are eligible for a *seniority pension* at 70% of pensionable earnings, irrespective of age. A *reduced pension* may be granted from the age of 60, for those with a contributions record of at least 15 years or from the age of 55, for those with a contributions record of 35 years. In case of early retirement, the pension is reduced by a rate equal to the number of months missing to the standard age of retirement, divided by 267. A *minimum pension* is paid to retirees whose contributions record and pensionable earnings would have entitled them to an “organic amount” below a certain level, set at 70% of the minimum wage.

Civil servants old age pension (σύνταξη δημοσίων υπαλλήλων)

For civil servants insured *before 1st January 1993*, the age of retirement after 25 years of service is 65 for men and 60 for women. After 35 years of service the age of retirement is 58 for both men and women. The accrual rate is 2.286%, corresponding to a replacement rate of 80% after 35 years of service.



For civil servants first employed *after 1st January 1993*, the standard age of retirement is 65 for both women and men. Pension benefits are calculated on the basis of (a) contributions record of at least 15 years, and (b) pensionable earnings calculated as the last five years prior to retirement. The accrual rate is 2%. Those with a contributions record of at least 37 years are eligible for a *seniority pension* at 70% of pensionable earnings, irrespective of age. A *reduced pension* may be granted from the age of 60, for those with a contributions record of at least 15 years or from the age of 55, for those with a contributions record of 35 years. In case of early retirement, the pension is reduced by a rate equal to the number of months missing to the standard age of retirement, divided by 267. A *minimum pension* is paid to retirees whose contributions record and pensionable earnings would have entitled them to an “organic amount” below a certain level, set at 70% of the minimum wage.

ΟΓΑ contributory pension (κύρια σύνταξη γήρατος ΟΓΑ)

In 1998 a new contributory pension for farmers came into being. Active farmers choose among seven insurance classes. Contribution rates and pension benefits rise with insurance class. The age of retirement is 65 for both men and women. In 2005 those with a contributions records of at least six years were entitled to *ΟΓΑ* contributory pension. One more year of compulsory insurance is added every year until 2013, when the official minimum limit of 15 years will be reached. The accrual rate is 2%.

The most important *non-contributory retirement benefits* are as follows.

ΟΓΑ basic pension (βασική σύνταξη γήρατος ΟΓΑ)

This basic pension is paid on reaching the age of 65 to men and women who have worked as farmers for at least 25 years and do not receive a pension from any other social insurance fund. The basic pension is phased out as the new contributory pension for farmers (see above) is phased in. The transitional provisions stipulate that all *ΟΓΑ* pensioners already in retirement at the end of 2002 will be eligible to the full basic pension, while those entering retirement after 2003 will be eligible to a reduced basic pension. The rate of reduction is 4% for those retiring in 2003, 8% for those retiring in 2004, 12% for those retiring in 2005, and so on until the basic pension is no longer paid to those retiring in 2027.

Supplements are paid for a dependent spouse below 65 or children below 18, worth €3.1 and €6.2 per month respectively. The 2005-12 *ΟΓΑ* basic pension rates are indicated below:

Table 1.5 *ΟΓΑ* basic pension rates (2005-2012), €per month

	2005	2006	2007	2008	2009	2010-2012
<i>ΟΓΑ</i> basic pension	212.85	227.75	277.75	330.00	330.00	360.00

Social pension (σύνταξη ανασφάλιστων υπεργηλίκων)

Social pension is paid to the non-insured elderly. In order to be eligible they must have reached the age of 65 and their total net yearly income must not exceed that corresponding to the social pension itself (i.e. €2,980 per year in 2005).

Supplements are paid for a dependent spouse below 65 or children below 18, worth €3.10 and €6.20 per month respectively. Social pension’s rates are the same as *ΟΓΑ* basic pension. It is also provided by *ΟΓΑ*. For more information, see section 2.4.1.

Pensioners’ social solidarity benefit (ΕΚΑΣ)

This is an income-tested supplement to low pensions, restricted to those receiving a contributory social insurance pension (i.e. recipients of a farmer basic pension or a social pension are



excluded). Beneficiaries must be over 60 if in receipt of an old age pension or a survivor pension. The age condition does not apply to recipients of invalidity or orphans' pensions.

Three income concepts are assessed separately: (a) personal net income from retirement benefits and employment earnings; (b) personal taxable income from all sources; and (c) family taxable income. The benefit amount is paid at four rates (five since 2011) depending on the level of annual net personal income from retirement benefits and employment earnings. It was fully taxable until 2007. From 1st January 2008 taxation on EKAΣ was abolished. For more information, see section 2.4.2.

Lump-sum benefit to civil servants (*επίδομα συνταξιούχων δημοσίου*)

This benefit was paid to civil servants only in 2009. Its rate was €500 for retired civil servants with gross pension up to €800 per month or working civil servants with salaries up to €1,500 per month and €300 for retired civil servants with gross pension between €800.01 and €1,100 per month or working civil servants with salaries between €1,500.01 and €1,700 per month (pension and salary rates as in 31st December 2008). For more information, see section 2.4.10.

Lump-sum benefit to low-paid pensioners (*έκτακτη οικονομική εισφορά σε χαμηλοσυνταξιούχους*)

This benefit was paid to low-paid pensioners only in 2011. Its rate varied from €100 to €300, depending on pensioners' personal and family taxable income. For more information, see section 2.4.12.

1.4.2 Unemployment benefits

Unemployment insurance is mandatory for all employees except tenured civil servants and agricultural workers. *OAEΔ*, a tripartite organisation funded through employee and employer contributions plus state subsidies, runs a variety of unemployment compensation schemes. None of the benefits provided are taxable.

Unemployment insurance benefit (*επίδομα ανεργίας*)

Dependent workers may be eligible for this benefit if they are involuntarily unemployed, capable and available for work, and registered with an *OAEΔ* employment office. Moreover:

- First-time claimants need to have worked and paid contributions for either (i) 80 days per year over the last two years, of which at least 125 days must be in the last 14 months excluding the last two months, or (ii) 200 days in the last two years excluding the last two months, of which at least 80 days in each of the last two years.
- Second-time claimants need to have worked and paid contributions for 125 days over the last 14 months excluding the last two months.
- Seasonal workers need to have worked and paid contributions for 100 days over the last 12 months.
- Construction workers and fishermen need to have worked and paid contributions for 100 days over the last 14 months.

The benefit rate in 2005 was €11.25 per month (a month corresponds to 25 days of unemployment). The rate is raised by 10% for each dependent family member up to the third. The benefit's duration is a function of contributory record; it is payable for at most 12 months, average duration being seven months. A part of the benefit is still payable if the person finds an occasional or part-time employment of up to three non-consecutive days per week. For more information, see section 2.4.8.



Unemployment assistance for older workers (*επίδομα μακροχρονίως ανέργων*)

This is paid to workers aged 45-65 who have been unemployed for more than 12 months and have already exhausted the right to unemployment insurance benefit (see above), if their annual family income is below €5,000. The income threshold is increased by €87 for each dependent child. The level of the benefit is set at €200 per month (unchanged since 2003), payable for a maximum period of 12 months. For more information, see section 2.4.7.

Seasonal unemployment benefit (*εποχιακά βοηθήματα*)

This benefit is paid as a lump sum to occupational groups characterized by a pattern of seasonal employment (builders, tobacco workers, actors, ceramists, forest workers, musicians, etc). Different rates and conditions apply according to the occupational group a worker belongs.

Benefit for young persons aged 20-29 (*επίδομα σε νέους/ες 20-29 ετών*)

It is paid to persons aged 20-29 on condition that these are out of work and remain in the unemployed records for one year. The benefit is payable for a period of five months; it amounts to €73.37 per month, raised by €5.87 per dependant (child or spouse).

1.4.3 Family benefits

Income transfers to families with children include non-contributory benefits and contributory family allowances. Contributory family allowances are automatically added to civil servants' (and some other groups') pay and are taxed. Lower allowances are paid by *OAEI* to private sector employees irrespective of social insurance affiliation.

Table 1.6 Contributory family allowances (2005-2012)

	2005	2006	2007	2008	2009-2011	2012
Banking employees						
<i>married</i>	85.40	92.20	96.90	104.90	108.00	108.00
<i>married with 1 child</i>	128.10	138.30	145.35	157.35	162.00	162.00
<i>married with 2 children</i>	149.45	161.35	169.58	183.58	189.00	189.00
<i>married with 3 children</i>	170.80	184.40	193.80	209.80	216.00	216.00
<i>married with 4 children</i>	213.50	230.50	242.25	262.25	270.00	270.00
Civil servants						
<i>married</i>	35.00	35.00	35.00	35.00	35.00	0.00
<i>married with 1 child</i>	53.00	53.00	53.00	53.00	53.00	50.00
<i>married with 2 children</i>	71.00	71.00	71.00	71.00	71.00	70.00
<i>married with 3 children</i>	118.00	118.00	118.00	118.00	118.00	120.00
<i>married with 4 children</i>	165.00	165.00	165.00	165.00	165.00	170.00
Private sector employees						
<i>married</i>	0.00	0.00	0.00	0.00	0.00	0.00
<i>married with 1 child</i>	8.22	8.22	8.22	8.22	8.22	8.22
<i>married with 2 children</i>	24.65	24.65	24.65	24.65	24.65	24.65
<i>married with 3 children</i>	55.47	55.47	55.47	55.47	55.47	55.47
<i>married with 4 children</i>	67.38	67.38	67.38	67.38	67.38	67.38

Notes: €per month. For banking employees, the amount of family allowance depends on the “salary class” of the employee. The amounts reported correspond to the lowest salary class.

Non-contributory benefits targeted to large families include “lifetime pension for mothers of many children”, “large family benefit” and “3rd child benefit”. They are funded out of general taxation. Until 2006 they were either taxed as income or at source at 10%. Since 1st January 2007 they are no longer 10% taxed at source. A 1.2% duty stamp is always deducted at source. Large family benefits are delivered by *OΓΑ* and are indexed to consumer prices. On 1st January



2006 a “lump sum €2,000 birth grant” was also introduced. These benefits will be abolished in the end of 2012 and replaced by a single child benefit.

3rd child benefit (επίδομα τρίτου παιδιού)

It is paid to families with three (or more) children until the third child reaches the age of six. The benefit is claimed by the mother, unless she is dead or has left the household, in which case it is drawn by the father. The benefit rates are indicated in Table 7. For more information, see section 2.4.3.

Large family benefit (πολυτεχνικό επίδομα)

It is paid monthly to families with four or more children (of any age and irrespective of whether they live together with their parents or not). Since 2006 it is also paid to lone parents with three children, disabled parents (over 67%) with three children and children orphaned from both parents if they are two or more. Since 2008 large family benefit is also provided to families of three children. The benefit is claimed by the mother, unless she is dead or has left the household, in which case it is drawn by the father. The benefit is paid for every child of the family that is unmarried and aged less than 23 years old or suffering from any kind of disability over 67% irrespective of age. The benefit rates (per eligible child) are indicated in Table 7. For more information, see section 2.4.4.

Lifetime pension for mothers of many children (ισόβια σύνταξη πολύτεκνης μητέρας)

It is paid to mothers with four or more children (of any age and irrespective of whether they live together with their parents or not) who are no longer eligible for the “many children benefit”. The benefit rates are indicated in Table 7.

Lump sum €2,000 birth grant (εφάπαξ παροχή €2,000)

The benefit, introduced on 1st January 2006 is paid as a lump sum to mothers giving birth to a third child and to each child over the third. It is not taxed. For more information, see section 2.4.5.

Table 1.7 Non-contributory benefits targeted to large families (2005-2011), €/per month

	2005	2006	2007	2008	2009	2010	2011-12
3 rd child benefit	154.27	159.82	164.45	170.86	174.28	178.81	177.00
Large family benefit	38.57	39.95	41.10	42.71	43.55	44.68	44.00
Lifetime pension for mothers of many children	88.72	91.91	94.58	98.27	100.24	102.85	102.00

Other non-contributory family benefits include the following:

Unprotected children benefit (επίδομα απροστάτευτων παιδιών)

A monthly benefit of €44.02 is paid to each unprotected child up to the age of 16, on the condition that the monthly income of the family with which the child resides is below €235 per month (net of rent, for a 3-member family, increased by €20 for each family member after the third).

Single parent benefit (επίδομα μονογονεϊκής οικογένειας)

It is paid to lone parents who do not receive the “unprotected children benefit” and whose yearly income does not exceed €2,817. The benefit rate is €105.65 per month for lone parents with one child and €148.20 per month for those with two children.



Income support to families with children in compulsory education (εισοδηματική ενίσχυση οικογενειών με ανήλικα τέκνα υποχρεωτικής εκπαίδευσης)

It is paid to families with children aged 6 to 16 on the condition that they are in compulsory education and the annual income of the family does not exceed €3,000. The benefit is worth €300 a year per child. For more information, see section 2.4.6.

1.4.4 Sickness and maternity benefits

Most social insurance funds provide sickness and maternity benefits in cash. These include statutory sick pay, maternity leave, birth grants, compensation for absence due to accidents at work, and death grants – plus a variety of other benefits ranging from tuberculosis therapy to children holiday camps (hardly a “sickness benefit” at all). Various schemes are operated by social insurance funds. The most important benefits, provided by *IKA*, *ΟΓΑ*, *ΟΑΕΕ* and *ΟΠΑΔ*, are as follows.

***IKA* sickness / accident allowance (επίδομα ασθένειας / εργατικού ατυχήματος *IKA*)**

Insured workers are entitled to *sickness allowance* when sick, provided that *IKA* Health Boards certify they are temporarily unfit for work. The period of receipt is conditional on prior contributions. Persons insured are entitled to sickness allowance for up to:

- 182 days for the same or a different disease, provided they have completed 100 insurance days in the year prior to their illness or in the last 15 months, excluding the three most recent months
- 360 days for the same disease, provided they have completed 300 insurance days in the last two years prior to their illness or in the last 30 months
- 720 days for the same disease, provided they fulfil *IKA*'s requirements for invalidity pension.

In case of an accident at work causing illness or injury, insured workers are entitled to *accident allowance*. No contributions test applies. If the accident is not work-related, the contributions required are half those demanded for sickness allowance.

The amount of the benefit, which is taxed as income, depends on the employee's insurance class in the last month of the year prior to his/her disease or accident and on the days of absence from work. No benefit is paid for the first three days of absence. The daily amount payable from day 4 to day 15 of absence equals 25% of the notional daily wage corresponding to the person's insurance class. The daily amount payable from day 16 onwards equals 50% of the notional daily wage corresponding to the person's insurance class. The benefit is raised by 10% for each dependent family member up to the fourth.

***IKA* maternity or “pregnancy-confinement” allowance (επίδομα κνοφορίας-λοχείας *IKA*)**

In case of pregnancy, if an insured worker has accumulated a minimum of 200 insurance days in the 24 months before delivery, she is entitled to *maternity allowance*, paid for a total of 17 weeks (8 weeks before and 9 weeks after child birth). The daily amount equals 50% of the notional daily wage corresponding to the person's insurance class. It is increased by 10% for each dependent family member up to the fourth. It is not taxed.

Moreover, during this out-of-work period (17 weeks) employers are mandated to pay one monthly salary for persons employed for more than one year and 50% of the salary for persons employed for less than one year. The salary is reduced by the amount of allowance received from *IKA*. For the remaining out-of-work period the difference between the person's previous earnings and *IKA*'s maternity allowance is made up by an additional maternity allowance, paid as a lump sum by *ΟΑΕΔ*.

***IKA birth grant (επίδομα τοκετού ΙΚΑ)***

This is paid as a lump sum to insured workers and pensioners (or the non-working wives of an insured worker or pensioner) in case of child birth. The rate is set at 30 times the minimum daily wage of an unskilled manual worker (€766.80 in 2005). It is not taxed.

IKA death or “funeral expenses” grant (έξοδα κηδείας ΙΚΑ)

This is paid as a lump sum in case of death of an insured worker or pensioner, on the condition that the deceased had accumulated 100 insurance days in the year preceding their death. The rate is set at 8 times the reference earnings of IKA’s higher insurance class (€668.40 in 2005) and it is not taxed.

OAEΕ accident allowance (επίδομα εργατικού ατυχήματος OAEΕ)

Self-employed workers are entitled to *accident allowance* when an accident at work leaves them unfit for work for at least 30 days. The rate is set at 3 times the amount of contributions paid per month by the insured worker (i.e. maximum €1,398 in 2005) and it is taxed. The allowance can be paid for up to four months. Note that *OAEΕ* pays no sickness allowance.

OAEΕ birth grant (επίδομα τοκετού OAEΕ)

This is paid as a lump sum to self-employed workers and pensioners (or the non-working wives of an insured worker or pensioner) in case of child birth. In 2005-12 the value of the grant was €800, increased in the case of multiple births by 50% for each child after the first. It is not taxed. Note that *OAEΕ* pays no maternity allowance.

OAEΕ death or “funeral expenses” grant (έξοδα κηδείας OAEΕ)

This is paid as a lump sum in case of death of an insured self-employed worker or pensioner. In 2005-12 it was worth €1,200. It is not taxed.

ΟΓΑ maternity or “pregnancy-confinement” allowance (επίδομα κνοφορίας-λοχείας ΟΓΑ)

In case of pregnancy, insured farmers are eligible for *maternity allowance*. It is paid as a lump sum. Its value is set at the amount of contributions paid per month by the insured worker (i.e. maximum €98 in 2005), increased in case of multiple births by 50% for each child after the first. It is not taxed.

ΟΓΑ birth grant (επίδομα τοκετού ΟΓΑ)

It is paid as a lump sum if delivery occurs in a private hospital or a private clinic not contracted to *ΟΓΑ*. Its amount equals 50% of *ΟΓΑ*’s maternity allowance and it is not taxed.

Civil servants sickness allowance (επίδομα ασθένειας δημοσίου)

Civil servants are entitled to *sickness allowance* when sick, provided that Civil Service Health Boards certify they are temporarily unfit for work. The allowance can be paid for a maximum period of 12 months, while its value exactly matches expected earnings. It is taxed.

Civil servants maternity allowance (επίδομα κνοφορίας-λοχείας δημοσίου)

In case of pregnancy, female civil servants are entitled to a *maternity allowance* paid for a total of five months (two months before and three months after child birth). The value of the allowance exactly matches expected earnings. It is not taxed.

Civil servants birth grant (επίδομα τοκετού δημοσίου)

This is paid as a lump sum to female civil servants and pensioners (or the non-working wives of an insured worker or pensioner). In 2005-12 the value of the grant was €1,000, raised by 50% in case of twins, 75% in case of triplets, 100% in case of quadruples etc. It is not taxed. Since November 2011 the benefit is only payable in case of labour in a private hospital.

**Birth grant to non-insured (επίδομα μητρότητας ανασφαλιστών)**

Those unable to claim maternity benefit from an insurance fund, either because they failed to meet the contributory conditions or because they were uninsured, can apply for this grant, paid as a lump sum and administered by local government at prefecture level. Its amount was €440.20 in 2005-12 (€220.10 before and €220.10 after delivery). It is not taxed.

1.4.5 Disability benefits

Most social insurance funds provide **contributory disability benefits and invalidity pensions** in cash. Disability benefits are not taxable whereas invalidity pensions are subject to taxation.

Various benefits are available, related to the contributions history or the employment status of their members. The most important disability benefit provided by *IKA*, *ΟΓΑ* and *ΟΑΕΕ* is the “**extra-institutional benefit**” (*εξωιδρυματικό επίδομα*), paid to pensioners suffering from quadriplegia - paraplegia over 67% or other conditions with the same effects on mobility. Active workers may also be eligible, provided they meet the contributory conditions (350 insurance days over the last four years for *IKA*, 40 contribution months for *ΟΑΕΕ*, one contribution year for *ΟΓΑ* and so on). The benefit may also be payable to dependants. The value of benefit (€511.20 per month in 2005) is set at 20 times the minimum daily wage of an unskilled manual worker, and is withdrawn if the claimant is institutionalised or in receipt of any other benefit for the same disability.

Social insurance funds also provide invalidity pensions. *IKA*'s minimum contributory record for an invalidity pension is:

- a) 300 insurance days for workers aged less than 21. The number of insurance days of retirement rises with age (by 120 per year) to 4,200 insurance days for workers aged less than 54, of which 300 in the five years prior to claiming, *or*
- b) 1,500 insurance days, of which 600 in the five years prior to claiming, *or*
- c) 4,500 insurance days

No contributory record is required for insured workers suffering from an accident at work or an occupational disease, provided it results to a degree of disability of at least 50%, same as the minimum degree of disability required for an invalidity pension due to ordinary disease. The amount of pension varies according to the degree of invalidity.

Non-contributory disability benefits are also available, funded out of general taxation and administered by local government at the prefecture level. In the past, the benefits were subject to various forms of means testing (abolished in 1987). Although not explicitly income tested, most benefits are reduced or withdrawn altogether if the recipient is in employment, a pensioner, or in receipt of invalidity pension. Non-contributory disability benefits are not taxable.

Non-contributory disability benefits are highly heterogeneous by type of disability and sometimes by category of recipient. There are 10 categories and 21 sub-categories of disability, in addition to a generic “mobility allowance”. In 2005, out of a total 168,515 disability benefit claimants, over 101,000 received “severe disability benefit”. The most important non-contributory disability benefits, ranked by number of recipients, follow.

Severe disability benefit (επίδομα βαριάς αναπηρίας)

It is paid to those unable to take up paid employment because they suffer from severe disability (at least 67%), provided they are not in receipt of a contributory disability benefit.

Blindness benefit (επίδομα τυφλότητας)

It is paid to persons whose eyesight is below 1/20.

**Severe mental retardation benefit (επίδομα βαριάς νοητικής καθυστέρησης)**

It is paid to persons whose IQ is below 30.

Kidney disease sufferers nutritional allowance (διατροφικό επίδομα νεφροπαθών)

It is paid to kidney disease sufferers, irrespective of social insurance coverage.

Fuel benefit for the disabled (επίδομα κίνησης αναπήρων)

It is paid to amputees or persons with leg paralysis owning a specially converted vehicle.

Quadriplegic/ paraplegic benefit (επίδομα τετραπληγίας/ παραπληγίας)

It is paid to those affected, if unable to claim the corresponding benefit from an insurance fund, either because they failed to meet the contributory conditions or because they were uninsured.

AIDS-hemophilia benefit (επίδομα AIDS-αιμορροφιλίας)

It is paid to affected persons, irrespective of social insurance coverage.

Benefit for the deaf-mute (επίδομα κωφάλλων)

It is paid to affected persons of non-working age, and to those of working age if unable to take up paid employment.

Thalassemia benefit (επίδομα μεσογειακής αναιμίας)

It is paid to affected persons, irrespective of social insurance coverage.

Hansen's disease benefit (επίδομα χανσενικών)

It is paid to affected persons, irrespective of social insurance coverage. It is also paid to dependent members of their family (i.e. spouse/parents/siblings if economically dependent and children below 18) for as long as the patient is institutionalised.

Brain paralysis benefit (επίδομα εγκεφαλικής παράλυσης)

It is paid to affected persons aged 0-18.

The amounts of non-contributory disability benefits are indicated below:



Table 1.8 Non-contributory disability benefit rates (2005-2012), €per month

	2005	2006	2007	2008	2009	2010	2011-12
Severe disability benefit	210	220	230	248	268	290	313
Blindness benefit							
<i>workers, pensioners, working students</i>	222	244	266	287	310	335	362
<i>unemployed workers, non-working students, children in primary/secondary education, lawyers, university teachers</i>	460	500	532	569	609	652	697
Severe mental retardation benefit	305	332	360	396	436	479	527
Kidney disease sufferers							
nutritional allowance	222	244	266	287	310	335	362
Fuel benefit for the disabled	158	160	165	165	165	165	165
Quadriplegic/ paraplegic benefit	511	528	588	629	673	720	771
AIDS-hemophilia benefit	460	500	532	569	609	652	697
Benefit for the deaf-mute	222	244	266	287	310	335	362
Thalassemia benefit	232	249	266	287	310	335	362
Hansen's disease benefit							
<i>institutionalised patients/ dependent family members</i>	222	244	266	287	310	335	362
<i>non-institutionalised patients, unable to take up paid employment</i>	400	470	532	569	609	652	697
Brain paralysis benefit	360	440	532	569	609	652	697

1.4.6 Housing benefits

OEK covers all dependent workers, except civil servants, and provides them a range of housing benefits, including subsidized housing loans and a rent subsidy. In February 2012 the organisation was abolished. Its duties were undertaken by a temporary authority with the task to continue its ongoing activities until the end of the year. The most important benefits provided by *OEK* are indicated below:

***OEK* rent subsidy (επιδότηση ενοικίου *OEK*)**

The rent subsidy is conditional on contributory record. Single applicants need to have at least 10 years of contributions. Lower eligibility criteria apply to various other categories of claimants, such as large families, single mothers, the disabled, young couples, temporary workers etc. It is not taxed.

The rent subsidy is open to workers whose annual net family income did not exceed €1,000 in 2005-06, €1,500 in 2007 and €2,000 in 2008-12. The income threshold is increased by €2,000 for each dependent child. Above the threshold the benefit is subject to a 100% implicit tax rate (i.e. it is reduced €1 per €1), until it falls to 1/3 of its original value, at which point it is fully withdrawn. An asset test also applies. Note that the payment of the benefit was entirely suspended for 2010. Its rates are presented below:

Table 1.9 *OEK* rent subsidy rates (2005-2012), €/per month

	2005	2006-12
<i>OEK</i> rent subsidy for:		
unmarried – married with no children	105	115
married with 1 child	130	140
married with 2 children	155	165
married with 3 children	205	215
married with 4 children	205	215

Note: The benefit is increased by €25 for each child after the fourth.

***OEK* interest rate subsidy programme**

OEK subsidizes mortgage interest rates taken up by eligible workers, while a similar role is played by a state loans agency in the case of civil servants. The subsidy varies by income and marital status, and is provided for a period of 9 and 7.5 years respectively. The subsidy may reduce interest repayments by up to 60%.

Moreover, approximately 1,500 housing units on average are ceded annually by *OEK* at cost which represents approximately 2/5 of their commercial value in the free market.

Housing benefit for non-insured elderly (στεγαστική συνδρομή ανασφαλιστών)

This is a non-contributory benefit, administrated by local government at prefecture level. It is paid directly to landlords on behalf of uninsured persons aged over 65 on low income (i.e. less than €5,000, increased by 30% for a spouse and by 20% per dependent child). It is not taxable. The amount of benefit during the period of 2005-2012 is indicated below:

Table 1.10 Housing benefit for non-insured elderly rates (2005-2012), €/per month

	2005	2006	2007	2008	2009	2010	2011-12
Housing benefit for non-insured elderly	222	244	266	287	310	335	362

Student housing benefit (φοιτητικό στεγαστικό επίδομα)

An allowance of €1,000 per year may be payable for every dependent child enrolled in tertiary education residing in a town other than his/her family's main residence, provided annual family income is below €30,000, raised by €3,000 for each child after the first.

1.4.7 Other benefits

Other benefits include emergency benefits, special allowances for ex-prisoners or repatriated Greeks as well as benefits for poor households living in less favoured areas. They are provided by various agencies, such as municipalities, *OAEΔ*, tax offices etc. The numbers of recipients and annual expenditure are presented in Tables 13 and 14.

Emergency social help (ειδικό επίδομα άμεσης προστασίας)

Emergency help may be available for victims of natural disasters. Families suffering loss of life, or serious injury, or disability, may receive a €4,402 payment, paid as lump sum. Those whose home was damaged may receive a grant of €587, also paid as lump sum to cover basic needs. Several additional conditions apply: beneficiaries must be Greek residents, on low income (i.e. less than €5,000 per year, increased by 30% for a spouse and by 20% per dependent child), the damaged home must be their primary one (i.e. no help for holiday homes).



Emergency allowance (*επίδομα έκτακτης κοινωνικής βοήθειας*)

A similar allowance of €250, paid as lump sum, may be available for those unable to cover basic needs due to an emergency (such as illness, death in the family etc).

Special allowance for released prisoners (*επίδομα αποφυλακισμένων*)

This is paid to recently released non-reoffending prisoners within two months of their release for a period of three months. The allowance is indexed to unemployment benefit. Since 2010 it became means-tested; in order to be eligible, the net annual family income of the recipient should be less than €9,097.58. The amount of the allowance is indicated in Table 1.11.

Special allowance for repatriated Greeks (*επίδομα παλλινιστούντων*)

This allowance is paid to political refugees who left Greece during the civil war or to ethnic Greeks from the countries of Eastern Europe, provided they are on the *OAEΔ* unemployed lists. It is indexed to unemployment benefit and it is paid thrice, once every three months. The allowance amount is indicated in Table 1.11.

Table 1.11 Special allowances (2005-2012), €per month

	2005	2006	2007	2008	2009-11	2012
Special allowance for released prisoners	186.75	186.75	220.43	242.40	272.55	216.00
Special allowance for repatriated Greeks	311.25	311.25	367.38	404.11	454.25	360.00

Benefit for households in less favoured areas (*εισοδηματική ενίσχυση ορεινών και μειονεκτικών περιοχών*)

It is paid to households residing in one of a list of “less favoured areas” and it is income-tested. Its income thresholds and rates are presented below:

Table 1.12 Benefit for households in less favoured rates (2005-2012)

	2005-07	2008	2009	2010-12
Income threshold for:				
full rate	2,000	2,200	2,600	3,000
reduced rate	3,000	3,300	4,000	4,700
Benefit rates (€per month)				
full rate	600	600	600	600
reduced rate	300	300	300	300

Lump-sum heating benefit (*επίδομα θέρμανσης*)

This benefit was paid to *ΟΓΑ* pensioners as well as unemployment benefit, *EΚΑΣ*, non-contributory disability benefits and social pension recipients only in 2009. Its amount was €100, €150 or €200, depending on the residential place of beneficiaries (southern part of the country, midlands and northern part of the country respectively). It was not taxed. For more information, see section 2.4.9.



- *Scope and scale*

Table 1.13 Social benefits: recipients (as % of population)

	2005	2006	2007	2008	2009	2010
1. Retirement benefits						
Main pensions	23.92	24.15	24.42	25.06	n/a	n/a
<i>IKA main old age pensions</i>	4.98	5.07	5.33	6.32 ^[a]		n/a
<i>IKA invalidity pensions</i>	1.18	1.16	1.17	1.18 ^[a]	10.53	n/a
<i>IKA survivor pensions</i>	2.20	2.23	2.30	2.54 ^[a]		n/a
<i>OAAE old age pensions</i>	2.52	2.59	2.60	2.72	2.83	n/a
<i>civil servant' pensions</i>	3.30	3.33	3.37	n/a	n/a	n/a
<i>OFA pensions</i>	7.76	7.73	7.64	7.40	7.42	n/a
Supplementary pensions	8.30	8.68	8.91	9.25	9.71	n/a
Pensioners' social solidarity benefit	3.56	3.49	3.39	3.27	2.95	n/a
Social pension	0.55	0.57	0.59	0.60	0.62	0.60
Lump-sum benefit to civil servants	-	-	-	-	n/a	-
2. Sickness-maternity benefits^[b]						
<i>IKA funeral expenses grant</i>	0.30	0.30	n/a	n/a	n/a	n/a
<i>IKA maternity allowance</i>	0.45	0.49	n/a	n/a	n/a	n/a
3. Disability benefits^[c]						
Severe disability benefit	0.92	0.94	1.11	1.04	1.11	1.15
Other disability benefits	0.60	0.62	0.71	0.70	0.75	0.77
4. Family benefits						
Large family benefit	0.78	0.76	0.75	2.11	2.10	2.34
3 rd child benefit	0.47	0.48	0.50	0.48	0.52	0.55
Lifetime pension for mothers of many children	1.73	1.69	1.64	1.59	1.55	1.51
Lump sum €2,000 birth grant	-	0.07	0.13	0.09	0.16	0.26
Unprotected children benefit	0.27	0.19	0.19	0.19	0.19	0.19
<i>OAEA</i> family allowance	3.23	3.20	3.21	3.54	n/a	n/a
Income support to families with children in compulsory education	0.21	0.25	0.23	0.15	n/a	n/a
5. Unemployment benefits						
Unemployment insurance	3.00	2.60	2.66	2.18	n/a	2.30
Unemployment assistance for older workers	0.01	0.01	0.01	0.01	0.01	0.02
6. Housing benefits						
OEK rent subsidy	0.58	0.74	0.91	1.13	n/a	n/a
Housing benefit for non-insured elderly	0.01	0.01	0.02	0.02	0.02	0.03
Student housing benefit	0.59	0.56	0.45	0.40	n/a	n/a
7. Other benefits						
Special allowance for released prisoners	0.03	0.02	0.02	0.02	n/a	n/a
Special allowance for repatriated Greeks	0.09	n/a	n/a	n/a	n/a	n/a
Benefit for households in less favoured areas	0.45	0.36	0.39	0.45	n/a	n/a
Lump-sum heating benefit	-	-	-	-	n/a	-

Notes:

[a] In 2008 public utilities and banking social insurance funds were merged with IKA

[b] No aggregate data available

[c] The figure refers to non-contributory disability benefits alone.



Source: Own elaboration of data derived from various official sources.

Table 1.14 Social benefit: expenditure

	2005	2006	2007	2008
Annual expenditure (million €)	26,069	26,935	29,662	31,993
as % of total expenditure				
1. Retirement pensions				
Main pensions	75.10	75.64	77.28	76.73
Supplementary pensions	11.76	12.16	12.45	13.19
Pensioners' social solidarity benefit	2.70	2.67	n/a	n/a
Social pension	0.75	0.81	0.92	1.02
Lump-sum benefit to civil servants	-	-	-	-
2a. Sickness benefits	1.33	1.33	1.23	1.19
2b Maternity benefits	0.53	0.55	0.55	0.57
3. Disability benefits^[a]				
Severe disability benefit	0.98	0.99	1.15	1.07
Other disability benefits	0.85	0.88	1.03	1.00
4. Family benefits				
Large family benefit	0.52	0.48	0.45	1.06
3 rd child benefit	0.39	0.36	0.36	0.37
Lifetime pension for mothers of many children	0.79	0.75	0.70	0.66
Lump-sum €2,000 birth grant	-	0.05	0.10	0.07
Unprotected children benefit	0.06	0.04	0.04	n/a
OAEΔ family allowance	0.38	0.35	0.33	0.30
Income support to families with children in compulsory education	0.03	0.03	0.03	0.02
5. Unemployment benefits				
Unemployment insurance	2.69	2.26	2.15	2.07
Unemployment assistance for older workers	0.01	0.01	0.01	0.01
6. Housing benefits				
OEK rent subsidy	0.42	0.53	0.62	n/a
Housing benefit for non-insured elderly	0.01	0.02	0.02	n/a
Student housing benefit	0.25	0.22	0.17	0.14
7. Other benefits				
Special allowance for released prisoners	0.00	0.00	0.00	0.00
Special allowance for repatriated Greeks	0.01	n/a	n/a	n/a
Benefit for households in less favoured areas	0.10	0.08	0.08	0.08
Lump-sum heating benefit	-	-	-	-

Notes: [a] The figure refers to non-contributory disability benefits alone

Source: Own elaboration of data derived from various official sources

- *Not strictly benefits*

Social contributions rebate for low earners (επιδότηση εργατικής εισφοράς χαμηλομίσθων)

It is targeted to minimum wage earners as a rebate of their *IKA* social contributions for pension insurance (6.67% of gross earnings). The monthly minimum value of the rebate for manual workers is presented below:



Table 1.15 Social contributions rebate for manual workers (2005-2012), €per month

	2005	2006	2007	2008	2009-11	2012
Social contributions rebate for manual workers (minimum value)	42.62	45.25	49.00	50.75	55.00	56.00

1.5 Social contributions

Social contributions are paid by all members of social insurance funds, whether active or retired. As elsewhere in continental Europe, membership of a social insurance organisation is compulsory.

Social insurance in Greece is highly fragmented, with contribution rates varying considerably between (and sometimes within) social insurance funds. Each fund is responsible for collecting social contributions. The most significant cases are presented below.

IKA

Workers insured with *IKA* (96.1% of all private sector employees) pay social contributions at a flat rate of 12.22% of “reference earnings”. Reference earnings reflect the notional wage for every one of *IKA*’s 28 insurance classes, where private sector employees are placed according to their actual earnings. Employer contributions are charged at 21.43% of reference earnings. *IKA* contributions are deducted at source, and pay for pension and sickness insurance. Hazardous occupations are subject to extra contributions (2.15% for employers and 3.45% for employees). In 2005 an upper earnings threshold of €2,140.50 and €4,881.26 applied to contributors first employed before and after 1st January 1993 respectively.

In addition to *IKA* contributions, *IKA* workers (and their employers) also pay contributions for related benefits: to *OAEA* for family and unemployment benefits, to *OEK* for housing benefits, and to *OEE* for various other benefits such as book vouchers, reduced theatre tickets, “social tourism” etc. In 2005 these amounted to 3.78% and 6.63% of reference earnings for employees and employers respectively. For more information, see sections 2.5.1 and 2.5.2.1.

Self-employed workers

The main social insurance fund for self-employed workers is *OAEE*, created in 1999 after the merger of *TEBE* with two smaller funds (*TAE* and *TΣA*).

Social contributions for self-employed workers are set at fixed amounts per insurance class, according to a schedule revised annually. In 2005, 10 insurance classes applied for former *TEBE* members first active before 1st January 1993. Contributors were first allocated to insurance class E, after one year they were moved to insurance class F, after another 5 years to insurance class G, and after another four years to insurance class H (highest compulsory one). Pension contributions varied from €04 (insurance class A) to €4,860 (insurance class J) per year, while sickness contributions were charged at a flat €732 per year. For those insured in *TAE* 3 insurance classes applied. For those first insured after 1st January 1993 there were 14 insurance classes (1 to 14); the first five were compulsory, the next nine optional. However, social contributions still varied by constituent fund.

In 2007 insurance classes were harmonised for all *OAEE* members, irrespective of constituent fund and of the date they were first insured; 14 insurance classes apply (ten compulsory and four optional). *OAEE* members are placed in the 1st (lowest) class, then transferred to the next after three years. Contributions were also (partly) harmonised for those first insured before 1st January 1993.

For more information, see sections 2.5.3.1 and 2.5.3.2.



Civil servants

Civil servants, with the exception of public enterprise employees, pay social contributions for pension and sickness insurance. Pension insurance here includes primary and supplementary benefits, plus a separation benefit paid as a lump sum. The contribution rate is 17.29% or 19.62% of earnings, for contributors first employed before and after 1st January 1993 respectively. For more information, see section 2.5.2.2.

Public enterprise workers

Persons working in public utilities¹ are insured in a variety of enterprise-specific insurance schemes. Compared to *IKA*, these schemes generally levy higher contributions and provide more generous benefits. In 2008 public enterprise workers' social insurance funds were merged with *IKA*. For more information, see section 2.5.2.3.

Banking employees

Employees of (formerly) state-controlled banks are insured in separate social insurance schemes, generally levying higher contributions and providing more generous benefits. Although most of these banks have been partly or fully privatised since the early 1990s, this has not affected the special status enjoyed by their employees in terms of social insurance. In 2008 banking employees' social insurance funds were merged with *IKA*. For more information, see section 2.5.2.4.

Liberal professions

The definition of liberal professions mainly includes medical doctors, lawyers and engineers. The relevant social insurance funds insuring these categories are collectively known as "noble funds" for the high level of benefits and quality of services they usually provide. For more information, see sections 2.5.2.5 and 2.5.3.3.

Farmers

Persons active in agriculture and related occupations such as fishing, as well as those active in other sectors but resident in rural areas (defined as settlements with a population below 2,000) are all insured with the farmers' social insurance fund *OΓA*. Until recently *OΓA* mostly provided non-contributory benefits, such as farmer basic pensions. Since 1998 it has been gradually developing into a social insurance organisation, collecting social contributions and providing contributory benefits such as the new main pension. Contribution rates and contributory benefits both vary by insurance class. Farmers voluntarily choose to be placed in one of seven insurance classes. Contributions are set as a proportion of notional income, at 7% and 1.5% for pension and sickness insurance respectively. For more information, see section 2.5.4.

Pensioners

Pensioner social contributions are levied at a flat 4% of pension income. Such contributions pay for sickness insurance and are deducted at source. For more information, see section 2.5.5.

¹ Although some of these public enterprises have been partly or fully privatised since the early 1990s, this has not affected the special status enjoyed by their employees in terms of social insurance.



- *Scope and scale*

Table 1.16 Social contributions: main pension contributors (as % of population)

	2005	2006	2007	2008	2009
Employees					
Private sector workers	17.96	17.90	18.05	19.60	19.67
Seamen	0.21	0.52	0.21	0.19	n/a
Other private sector workers	0.27	0.22	0.10	0.22	0.21
Press workers	0.24	0.20	0.18	0.20	0.20
Civil servants	4.01	3.92	3.97	3.98	n/a
Banking employees	0.19	0.14	0.14	[a]	[a]
Public utilities employees	0.62	0.59	0.55		
Self-employed					
Own-account workers (TEBE)	5.27	7.56	7.20	7.48	7.37
Other self-employed (TAE-TΣA)	2.19				
Lawyers, doctors & engineers	2.16	2.25	2.28	2.33	2.38
Miscellaneous	0.08	0.08	0.08	0.20	n/a
Farmers	6.48	6.48	6.40	6.47	6.45

Notes: [a] In 2008 public utilities and banking social insurance funds were merged with IKA.

Source: Own elaboration of data derived from Social Budgets 2005-09.

Table 1.17 Social contributions: revenue

	2005	2006	2007	2008
Social contributions (million €)	31,281	34,314	37,755	n/a
<i>As % of total social contributions revenue:</i>				
Contribution of insured persons	31.33	30.11	30.60	n/a
Employers' contribution	29.60	29.05	29.70	n/a
State contribution ^[a]	4.19	4.30	4.19	n/a
Earmarked resources ^[b]	5.53	5.04	4.75	n/a
State subsidies ^[c]	21.16	22.32	22.94	n/a
Property income	4.29	5.07	4.65	n/a
Other revenue	3.89	4.11	3.17	n/a

Notes:

[a] State contribution to social insurance funds at 10% of gross earnings was officially established in 1993. From 2003, official State contribution to IKA was set equal to 1% of yearly GDP.

[b] Revenue from indirect taxation on certain products and transactions directed to specific social insurance funds (mainly OΓA and noble funds).

[c] Ad hoc subsidies to indebted social insurance funds, additional to official State contribution.

Source: Hellenic Statistical Authority.

1.6 Taxes

Personal income tax (φόρος εισοδήματος φυσικών προσώπων)

Personal income tax applies to income from dependent employment, liberal profession, commercial activities, agricultural activities, property, investment etc. With the exception of some cases that are treated separately, all income is added together before allowances and deductions are taken into account. All residents with an annual income of over €3,000 are



required to file an income tax return. Under certain conditions, such as the purchase of property, the obligation to file an income tax return applies even to those earning less than €3,000 per year. Married couples fill in a joint tax return, even though each spouse's income is taxed separately. Tax relief takes the form of tax allowances (reducing taxable income) and tax deductions (reducing tax due). The list of allowances and deductions is revised annually, but generally includes medical expenses and elderly care, private insurance contributions, education expenses, mortgage interest repayments, rent and maintenance payments, charitable donations and household expenses. Taxable income is subject to a progressive tax schedule, with rates ranging from 15% to 45% in 2005-12. A personal tax allowance is available, to which a dependent child tax allowance is also added. For more information, see section 2.6.

Corporate income tax (φορολόγηση εισοδήματος νομικών προσώπων)

Companies registered as *Sociétés Anonymes (S.A.)*, other than banks and insurance companies, are taxed on their total net income or profit derived from business activities in Greece or abroad. Distributed profits are net of corporate income tax. The tax rate fell from 35% in 2004 to 32% in 2005 and further to 29% in 2006, 25% in 2007-2009, 24% in 2010 and 20% in 2011-12. Shares to non-listed companies are taxed at 5% upon transfer (0.15% if listed).

Interest income tax (φόρος επί τόκων καταθέσεων)

Interest on bank deposits is taxed at 10%. For more information, see section 2.7.

Value added tax (φόρος προστιθέμενης αξίας)

Two VAT rates apply: a *lower rate* of 9% (10% from 15th March 2010 and 11% from 1st July 2010), applicable to food and other basic commodities and some services; and a *higher rate* of 19% (21% from 15th March 2010 and 23% from 1st July 2010), applicable to all other items. Books and print are subject to half the lower rate (4.5% to 5% and 5.5%).

Large property tax (φόρος μεγάλης ακίνητης περιουσίας)

Property worth in excess of €243,600 in terms of cadastral values is taxed at 0.3% to 0.8% of the excess value, depending on its level. Property owned by corporations is taxed at a flat 0.7% of the excess value. The tax-free value is raised to €487,200 for married couples, to €548,850 for couples with one child, €610,500 for couples with two children, €683,900 for couples with three children and so on. Large property tax was abolished on 31st December 2007 and replaced by Single Property Fee (*ETAK*). Hence, since 1st January 2008 property worth in excess of €300,000 in terms of cadastral values is taxed at 0.1% and property owned by corporations is taxed at a flat 0.6% of the excess value. The tax-free value is not raised for married couples or couples with children. In 2010 *ETAK* reverted to single property tax (*ενιαίο τέλος ακινήτων*). Thus, since 1st January 2010 property worth in excess of €400,000 in terms of cadastral values (€200,000 since 2011) is taxed at 0.1% to 2% of the excess value (0.2% to 2% since 2011) depending on its level, whereas property worth in excess of €5 million is taxed at 2%. Property owned by corporations is taxed at a flat 0.6% of the excess value.

Emergency property tax (ειδικό τέλος ακινήτων)

Since 2011, all persons who own commercial or residential property in Greece are subject to an emergency property tax. Its amount, varying from € to €16 per square meter, depends on the size, the age and the location of the property. A *reduced rate* of €0.50 per square meter applies to vulnerable population categories (i.e. large families, unemployed, persons with severe disabilities). Blind persons and persons with disability over 80% are exempted from the tax. For more information, see section 2.15.

Capital gains tax (φόρος αυτόματου υπερτιμήματος)

Properties purchased or donated after 1st January 2006 are subject to a capital gains tax. The tax is formally imposed on the seller, and is levied on the difference between the purchase and the



sales price of a property. The tax rate is 20% for properties owned for less than five years, 10% for properties owned for six to 15 years, 5% for properties owned for 16 to 25 years and 0% for properties owned for more than 25 years. Capital gains tax was abolished on 31st December 2009.

Real estate transfer tax (*φόρος μεταβίβασης ακινήτου*)

The transfer of property is taxed according to *cadastral values*. In 2005-09 the tax rate was 7% for the first €15,000, and 9% for the remainder. These rates increased by 2% when the property was situated in an area covered by a public fire brigade. Since 1st January 2010 the tax rates became 8% for the first €20,000, and 10% for the remainder and the 2% increase in rates when the property is situated in an area covered by a public fire brigade was abolished. A 3% *municipality tax* on real estate transfer tax is also applicable.

For first-time buyers of a primary residence (house / flat) taxation rules apply for values above €75,000. The tax-free value is raised to €15,000 for married couples, to €38,000 for couples with one child, €61,000 for couples with two children, €96,000 for couples with three children and so on.

Since 1st January 2008 taxation on first-time buyers of a primary residence was abolished for residences up to 200 m². 25 additional m² were added for each dependent child of the household. 11% tax is paid for the remainder.

Since 1st January 2010 for first-time buyers of a primary residence taxation rules apply for values above €200,000. The tax-free value is raised to €250,000 for married couples, €275,000 for couples with one child, €300,000 for couples with two children and €330,000 for couples with three children. The tax-free value is increased by €30,000 for each child after the third.

After 1st January 2006 only properties purchased or donated for the *first* time are subject to real estate transfer tax. Sellers of properties that have already been sold or donated in the past are subject to capital gains tax plus an additional 1% transaction fee on the cadastral value of the property.

Additional tax on rental income (*συμπληρωματικός φόρος εισοδήματος από μισθώματα*)

In addition to its taxation as personal or corporate income, rental income is also subject to a 1.5% tax, increased to 3% for rentals exceeding 300m² and for rentals belonging to corporations. The amount of additional tax may not exceed total liability in terms of personal or corporate income tax. For more information, see section 2.8.

1% extraordinary contribution (*έκτακτη εισφορά 1%*)

This emergency measure applied only for 2010. Individuals with 2009 net taxable incomes exceeding €100,000 were 1% taxed. For more information, see section 2.9.

Pensioners' solidarity contribution (*εισφορά αλληλεγγύης συνταξιούχων*)

Since 1st August 2010 main pensions exceeding €1,400 per month are subject to taxation. The tax rates vary from 3% to 10%. For more information, see section 2.10.

Additional pensioners' solidarity contribution (*αυξημένη εισφορά αλληλεγγύης συνταξιούχων*)

Since 1st August 2011 pensioners below 60 with main pensions exceeding €1,700 per month are subject to taxation. The tax rates vary from 6% to 10%. For more information, see section 2.11.

Pensioners' solidarity contribution for supplementary pensions (*εισφορά αλληλεγγύης επικουρικών συντάξεων*)

Since 1st August 2011 supplementary pensions exceeding €300 per month are subject to taxation. The tax rates vary from 3% to 10%. For more information, see section 2.12.

**Solidarity contribution (εισφορά αλληλεγγύης)**

This emergency measure applied retrospectively from 2010 onwards. Individuals with taxable incomes exceeding €12,000 are taxed, the tax rates vary from 1% to 4%. For more information, see section 2.13.

Self-employed and liberal professions' contribution (τέλος επιτηδεύματος)

This is a special levy on self-employed and liberal professions, introduced in 2010. It amounts from €300 to €500 per year. For more information, see section 2.14.

Additional taxes on pensions

Since 1st January 2012 all main old-age pensions exceeding €1,300 are subject to 12% taxation. Note that the tax rate applies to the pension amount exceeding €1,300 after the deduction of the above mentioned solidarity contribution. Pensions are not allowed to fall below €1,300.

Since 1st November 2011 all pensioners below 55 with main old-age pensions exceeding €1,000 are subject to 40% taxation. The tax rate applies to the pension amount exceeding €1,000 after all other solidarity contributions concerning main pensions have been deducted.

Persons aged above 55 with main old-age pensions exceeding €1,200 are subject to 20% taxation. The tax rate applies to the pension amount exceeding €1,200 after all other solidarity contributions concerning main pensions have been deducted.

Since 1st January 2012 supplementary pensions are subject to additional taxation. The tax rates vary from 10% to 20%.

For more information, see section 2.15.

Inheritance tax (φόρος κληρονομιάς)

Property and other assets transferred as gifts and bequests are subject to inheritance tax. The tax rates vary according to the amount of inheritance and the degree of the relationship between taxpayer and donor.

Regional and municipal taxes (δημοτικά τέλη ακίνητης περιουσίας)

A number of individual taxes and duties are paid to local authorities, at rates set locally. In Athens, a tax of 0.035%, collected with electricity bills, applies to the cadastral values of all flats and houses.

Excise duties (φόροι κατανάλωσης)

Special consumption taxes apply for alcohol, tobacco and fuel.



- *Scope and scale*

Table 1.18 Taxes: personal income tax; taxpayers

	2005	2006	2007	2008	2009
Tax filers excl. dependants	8,169,236	8,216,232	8,246,361	8,342,160	8,451,733
Main earner	5,480,354	5,530,427	5,598,885	5,655,100	5,694,978
Spouse	2,688,882	2,685,805	2,647,476	2,687,060	2,756,755
<i>As % of population</i>	73.71	73.43	73.12	73.27	75.06
Tax filers incl. dependants	10,489,084	10,546,271	10,583,892	10,575,993	10,794,979
<i>As % of population</i>	94.64	94.80	94.74	94.31	95.87
Tax filers reporting >0 income	6,790,981	6,865,612	6,940,190	7,150,805	7,142,986
Main earner	5,023,355	5,069,759	5,128,009	5,323,785	5,315,328
Spouse	1,767,626	1,795,853	1,812,181	1,827,020	1,827,658
<i>As % of tax filers</i>	83.10	84.04	84.96	87.03	84.52
<i>As % of population</i>	61.50	61.95	62.38	63.77	63.43
Tax filers paying >0 tax	2,486,784	2,440,168	2,631,946	2,796,653	2,849,247
Main earner	1,983,047	1,945,570	2,097,124	2,222,976	2,246,730
Spouse	503,737	494,598	534,822	573,677	602,517
<i>As % of tax filers</i>	30.40	29.87	32.22	34.04	33.71
<i>As % of population</i>	22.50	22.02	23.66	24.94	25.30

Source: Own elaboration of data derived from the Ministry of Economy and Finance (General Secretariat for Information Systems).

Table 1.19 Tax receipts (2007-2011)

	2007	2008	2009	2010	2011
	Million €				
Total tax revenue	45,799	47,452	44,798	45,973	43,727
Direct taxes	18,513	19,148	19,315	18,128	17,527
Indirect taxes	27,286	28,304	25,483	27,845	26,200
	% of GDP				
Total tax revenue	20.56	20.37	19.34	20.22	20.33
Direct taxes	8.31	8.22	8.34	7.97	8.15
Indirect taxes	12.25	12.15	11.00	12.25	12.18

Source: Ministry of Finance.



2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

2.1 Scope of simulation

EUROMOD is a cross-country comparative benefit-tax model. The model simulates a variety of taxes and benefits. However, not all taxes and benefits mentioned in section 1 are simulated. Some are entirely beyond the scope of the model, and are not included either in the EUROMOD input database or as output variables. Others are impossible to simulate accurately with the available data, but are included in the database and may be chosen as components of output variables (even if the relevant policy rules may not be changed by the model). Tables 2.1 and 2.1 classify the main tax and benefit instruments according to how each is treated in EUROMOD, and provide a brief explanation as to why the instrument is not fully simulated when this is the case.

In the case of Greece, we have been able to simulate four retirement benefits related to current conditions (social pension, pensioners' social solidarity benefit, lump-sum benefit to civil servants, lump-sum benefit to low paid pensioners), the abolishment of 13th and 14th pension and their replacement with bonuses, the upper limit set on public sector employees' monthly earnings, the suspension in the provision of *OEK* housing benefit in 2010, unemployment benefits (unemployment assistance for older workers, and, partially, unemployment insurance), family benefits (3rd child benefit, large family benefit, income support to families with children in compulsory education), lump-sum heating benefit, various taxes as well as social insurance contributions for a large number of occupational categories.



Table 2.1 Simulation of benefits in EUROMOD

	Variable name	Treatment in EUROMOD				Main limitations
		2009	2010	2011	2012	
Retirement benefits/pensions						
Main old age pension	poa00	I	I	I	I	1
Supplementary old age pension	poacm	I	I	I	I	1
Other minor old age pensions	poaot	I	I	I	I	1
Survivors pension	psuwd	I	I	I	I	1
Orphans pension	psuor	I	I	I	I	1
Pensioners' social solidarity benefit	boact_s	S	S	S	S	
Social pension	boanc_s	PS	PS	PS	PS	
Abolishment of 13 th and 14 th pension and compensations	pxp_s	-	S	S	S	
Lump-sum benefit to civil servants	bcsxp_s	S	-	-	-	
Lump-sum benefit to low paid pensioners	boaxp_s	-	-	S	-	
Unemployment benefits						
Unemployment insurance	bunct_s	S	S	S	S	1
Unemployment assistance for older workers	bunnc_s	S	S	S	S	
Other (minor) unemployment benefits	bunot	I	I	I	I	2
Family benefits						
Large family benefit	bfalg_s	S	S	S	S	
3 rd child benefit	bchlg_s	S	S	S	S	
Lump sum €2,000 birth grant	bchba_s	S	S	S	S	
Lifetime pension for mothers of many children	pfa	I	I	I	I	2
Civil servants family benefit	bfacs	I	I	I	I	2
Income support to families with children in compulsory education	bched_s	S	S	S	S	
Other (minor) family benefits	bfaot	I	I	I	I	2
Sickness – maternity benefits						
Sickness benefits	bhl	I	I	I	I	1
Maternity benefits	bmact	I	I	I	I	1
Disability benefits						
Disability pensions (contributory)	pdi	I	I	I	I	1
Disability benefits (non-contributory)	bdi	I	I	I	I	2
Housing benefits	bho	I	I	I	I	2
Lump-sum heating benefit	bhoxp_s	S	-	-	-	
Scholarships and grants	bed	I	I	I	I	2
Other social assistance benefits	bsaot	I	I	I	I	2
Minimum wage	yem	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;
 “1”: no data on contribution history;
 “2”: data available not sufficient to simulate all eligibility conditions.



Table 2.2 Simulation of taxes and social contributions in EUROMOD

	Variable name(s)	Treatment in EUROMOD				Why not fully simulated?
		2009	2010	2011	2012	
Taxes						
Personal income tax	tin00_s	S	S	S	S	(except for some tax credits)
Corporate income tax	-	E	E	E	E	1
Interest income tax	tinktdt_s	S	S	S	S	
Value added tax	-	E	E	E	E	1
Large property tax	tpr	I	I	I	I	2
Real estate transfer tax	-	E	E	E	E	1
Additional tax on rental income	tinrt_s	S	S	S	S	
1% extraordinary contribution	txcxt_s	-	S	S	S	
Solidarity contribution	txc00_s	-	S	S	S	
Pensioners' solidarity contribution	txcpe_s	-	S	S	S	
Pensioners' solidarity contribution for supplementary pensions	txcpe_s	-	-	S	S	
Additional pensioners' solidarity contribution	txcpe_s	-	-	S	S	
Additional taxes on pensions	txcpe00_s	-	-	-	S	
Self-employed and liberal professions contribution	txcse_s	-	-	S	S	
Emergency property tax	txcpr_s	-	-	S	S	
Capital gains tax	-	E	E	E	E	1
Regional and municipal taxes	-	E	E	E	E	1
Excise duties	-	E	E	E	E	1
Social insurance contributions						rules simulated
Employers	tscer*_s					
Private sector		S	S	S	S	<i>IKA</i>
Employees	tscee*_s					
Private sector		S	S	S	S	<i>IKA</i>
Civil servants		S	S	S	S	<i>civil servants scheme</i>
Public enterprise workers		S	S	S	S	<i>TAII-OTE</i>
Banking employees		S	S	S	S	<i>ETE</i>
Liberal professions		S	S	S	S	<i>TΣAY</i>
Self-employed	tscse*_s					
liberal professions		S	S	S	S	<i>TΣAY</i>
own account workers		S	S	S	S	<i>TEBE</i>
other self-employed		S	S	S	S	<i>TAE</i>
Farmers	tscfr*_s	S	S	S	S	<i>OΓA</i>
Pensioners	tscbesi_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;

“1”: no data on contribution history;

“2”: data available not sufficient to simulate all eligibility conditions.



2.2 Order of simulation and interdependencies

- *Order of simulation in 2009-2012*

Table 2.3 EUROMOD Spine: order of simulation, 2009-2012

Policy	Description	Main output
TaxCompl*	Full tax compliance (otherwise accounts for tax evasion)	
NonTakeup	Non-takeup of benefits (otherwise full take-up)	
FullYear*	Annual policies (instead of 30 th June)	
empl*	Employment adjustments	
yem*	Minimum wage	yem
pxp	Abolishment of 13th/14th pensions and compensations - since 2010; upper limit in civil servants' pay; suspension of OEK housing benefit (2010 only)	pxp_s, yem, bho
tscer	Employer social insurance contributions - private sector (<i>IKA</i>)	tscer*_s
tscee	Employee social insurance contributions - private sector (<i>IKA</i>)	tscee*_s
tscee01	Employee social insurance contributions - liberal professions (<i>TΣAY</i>)	tscee01*_s
tscee02	Employee social insurance contributions - banking employees (<i>ETE</i>)	tscee02*_s
tscee03	Employee social insurance contributions - public enterprises (<i>TAII-OTE</i>)	tscee03*_s
tscee04	Employee social insurance contributions - civil servants	tscee*_s
tscseB	Self-employed social insurance contributions - (<i>OAEΕ</i> from 2007)	tscseB*_s
tscse01	Self-employed social insurance contributions - liberal professions (<i>TΣAY</i>)	tscse01*_s
tscfr	Social insurance contributions - farmers (<i>OΓA</i>)	tscfr*_s
bunct	Unemployment insurance benefit	bunct_s
bchlg	3 rd child benefit	bchlg_s
bfalg	Large family benefit	bfalg_s
bchba	Birth grant - since 2006	bchba_s
boanc	Social pension	boanc_s
tscbesi	Social insurance contributions - pensioners - 1 st run (with <i>EKAΣ=0</i>)	tscbesi_s
tin00	Personal income tax - 1st run (with <i>EKAΣ=0</i>)	tin*_s
boact	Pensioners' social solidarity benefit	boact_s
bunnc	Unemployment assistance for older workers	bunnc_s
tscbesi	Social insurance contributions - pensioners - 2nd run	tscbesi_s
tin00	Personal income tax - 2nd run	tin*_s
tinwh	Withholding tax on benefits	tinwh_s
bched	Income support to families with children in compulsory education	bched_s
tinktdt	Interest income tax	tinktdt_s
tinrt	Additional tax on rental income	tinrt_s
txcpr	Emergency property tax	txcpr_s
bhoxp	Lump sum heating benefit - only in 2009	bhoxp_s
bcsxp	Lump sum benefit to civil servants - only in 2009	bcsxp_s
boaxp	Lump sum benefit to low-paid pensioners – only in 2011	boaxp_s
	Pensioners' solidarity contribution - since 1 st August 2010	
	Pensioners' solidarity contribution for supplementary pensions - since 1 st September 2011	
txcpe	Additional pensioners' solidarity contribution - since 1 st September 2011	txcpe_s
txcpe00	Additional taxes on pensions – since 2012	txcpe00_s
txcse	Self-employed and liberal professions contribution – since 2010	txcse_s
txcxt	1% extraordinary contribution - only in 2010	txcxt_s
txc00	Solidarity contribution - since 2010	txc00_s

* Switched off in the baseline.



The policy spine starts with various ‘switches’ to choose whether the model should account for (the default option is underlined):

- Full vs partial tax compliance
- Full vs partial benefit take-up
- Policies as of 30th June vs annual policies (relevant for 2010-11 only)
- Constant employment vs changes in employment (relevant for SILC2008 dataset)

Depending on user choices relevant adjustments are then automatically applied throughout the model. The tax compliance switch controls which set of gross earnings variables – see section 3.4.3 for more information – are used to derive disposable income and whether to limit the tax bases and benefit means-test to reported earnings only. Benefit take-up switch controls non-takeup modelling for certain benefits (e.g. social pension). While EUROMOD in general simulates policies as of 30th June in the respective year, it is also possible to simulate within year policy changes (for more information, see section 4.2.4 in ‘EUROMOD Country Report: Greece 2007-2010’). Finally, it is possible to allow for employment changes (since the income reference period) to be modelled as well.

These are followed by ‘core’ policies starting with minimum wage as it changes employment income for those observed below the legal limit (although this policy is switched off in the baseline scenario). This is followed by the abolishment of 13th and 14th pensions and compensations. Employer and employee SIC – which are levied on employment income – self-employed (including farmers) SIC and unemployment insurance benefits are simulated afterwards. Those policies are based on individuals as the tax unit, so that the income concept for determining the head of the unit is not relevant. The only exception is a supplement of unemployment insurance benefit for dependent family members and here original income is used to determine the head of the unit. This is also the case for interest income tax, additional tax on rental income, lump-sum heating benefit, lump-sum benefit to civil servants, lump-sum benefit to low-paid pensioners, pensioners’ solidarity contributions, 1% extraordinary contribution and solidarity contribution. For all other policies using a tax unit comprised of more than one individual, apart from 3rd family benefit and large family benefit, original income together with replacement incomes (ils_origrepy) are used to determine the head of the unit. For those two family benefits, in order to deal with multi-generational households, priority is given to people with three and more children (and without parents). The simulated benefit is then reallocated to the woman of the household.

Further characteristics which affect the order of simulations:

- Unemployment insurance benefit is included in the means-test of social pension and affects the calculation of unemployment assistance for older workers.
- Social pension is subject to pensioners’ SIC.
- Means-test for EKAS is net of employee and pensioners’ SIC and income tax. At the same time EKAS is also subject to pensioners’ SIC and income tax. Therefore, pensioners’ SIC and income tax policies are run twice: first with EKAS set to zero, after which EKAS is calculated, and then again with EKAS final values. Since 2008 EKAS is no longer subject to income tax, so income tax can be run only once while pensioners’ SIC is still run twice.
- Employee, self-employed and pensioners’ SIC are deducted from the income tax base.
- Means-test for benefit for families with children at school is based on taxable income.



- 3rd child benefit and large family benefit are subject to withholding income tax on benefits.
- EKAS, 3rd child benefit and large family benefit are included in the means-test of unemployment assistance for older workers. The latter became taxable in 2010, therefore, requiring the income tax policy to be run twice again.

2.3 Minimum wage

ΕΓΣΣΕ sets the overall minimum wages for private sector white and blue-collar workers. The amount of minimum pay varies depending on a worker's years of service and family status.

- *Eligibility conditions*

ΕΓΣΣΕ only covers private sector workers. Minimum wages for functionaries and employees in the public sector, state-law entities and local government, permanent officers of the armed forces, Hellenic Police Force, Fire Brigade and Coast Guard are set, not by collective bargaining, but by governmental legislative regulations. These regulations are not simulated in EUROMOD. The definition of white and blue-collar workers also excludes banking employees, as these are covered by more favorable sectoral agreements (also not simulated in EUROMOD).

- *Minimum wage amounts*

Since 14th February 2012 minimum wage was reduced by 22% for workers aged above 25 and 32% for workers aged below 25. Its rates in 2005-2012 are presented below:

Table 2.4 Minimum daily wage of blue-collar workers aged above 25

Min daily wage (€)	2005	2006	2007	2008	2009-11	2012
Seniority	Unmarried					
Up to 3 years	25.56	27.18	29.39	30.40	33.04	26.18
4 to 6 years	26.51	28.17	30.47	31.52	34.25	27.49
7 to 9 years	27.78	29.52	31.93	33.03	35.89	28.80
10 to 12 years	29.03	30.86	33.37	34.52	37.51	30.11
13 to 15 years	30.30	32.21	34.83	36.03	39.15	31.42
16 to 18 years	31.56	33.55	36.28	37.53	40.78	32.73
More than 18 years	31.56	33.55	36.28	39.05	42.43	34.03
Seniority	Married					
Up to 3 years	28.12	29.89	32.33	33.45	36.34	28.80
4 to 6 years	29.06	30.89	33.41	34.56	37.56	30.11
7 to 9 years	30.33	32.24	34.87	36.07	39.20	31.42
10 to 12 years	31.59	33.58	36.31	37.56	40.82	32.73
13 to 15 years	32.86	34.92	37.77	39.07	42.46	34.04
16 to 18 years	34.12	36.26	39.22	40.57	44.09	35.35
More than 18 years	34.12	36.26	39.22	42.09	45.74	36.65



Table 2.5 Minimum wage of white-collar workers above 25

Min monthly wage (€)	2005	2006	2007	2008	2009-11	2012
Seniority	Unmarried					
Up to 3 years	572.30	608.32	657.89	680.59	739.56	586.08
4 to 6 years	619.97	659.00	712.70	737.29	801.17	644.69
7 to 9 years	676.33	718.91	777.49	804.31	874.01	703.30
More than 9 years	732.69	778.82	842.28	871.34	946.84	761.90
Seniority	Married					
Up to 3 years	629.53	669.16	723.68	748.65	813.52	644.69
4 to 6 years	677.20	719.84	778.49	805.35	875.13	703.30
7 to 9 years	733.56	779.75	843.28	872.37	947.96	761.91
More than 9 years	789.92	839.65	908.07	939.40	1,020.80	820.51

Table 2.6 Minimum daily wage of blue-collar workers aged below 25

Min daily wage (€)	2005	2006	2007	2008	2009-11	2012
Seniority	Unmarried					
Up to 3 years	25.56	27.18	29.39	30.40	33.04	22.83
4 to 6 years	26.51	28.17	30.47	31.52	34.25	23.97
More than 6 years	27.78	29.52	31.93	33.03	35.89	25.11
Seniority	Married					
Up to 3 years	28.12	29.89	32.33	33.45	36.34	25.11
4 to 6 years	29.06	30.89	33.41	34.56	37.56	26.25
More than 6 years	30.33	32.24	34.87	36.07	39.20	27.39

Table 2.7 Minimum monthly wage of white-collar workers below 25

Min monthly wage (€)	2005	2006	2007	2008	2009-11	2012
Seniority	Unmarried					
Up to 3 years	572.30	608.32	657.89	680.59	739.56	510.95
More than 3 years	619.97	659.00	712.70	737.29	801.17	562.05
Seniority	Married					
Up to 3 years	629.53	669.16	723.68	748.65	813.52	562.05
More than 3 years	677.20	719.84	778.49	805.35	875.13	613.15

- **EUROMOD notes**

Minimum wage is simulated in the model, except for civil servants, workers in public enterprises and banking employees, but switched off in the baseline (from the spine). In case someone reports lower earnings (yem) compared to the minimum wage, adjusted for the months receiving employment income (yemmy) and hours worked last week (lhw) but ignoring overtime hours (i.e. above 40 hours per week), the earnings are increased up to the minimum level.



2.4 Social benefits

2.4.1 Social pension

This is a non-contributory, income-tested pension. It is reserved for people over 65 years of age who lack independent means of support.

- **Eligibility conditions**

Beneficiaries must be 65 years old and over. They must not be in receipt of another pension or, if they or their spouses are, its value should be lower than that of *OIA* basic pension.

- **Income test**

The benefit is granted if personal income does not exceed the benefit amount itself and if family income does not exceed twice the benefit amount itself (i.e. €2,980 and €5,960 per year in 2005 respectively – that is 14 times monthly rate).²

For the calculation of personal (and family) income the following income sources are taken into account: employment, self-employment and other market income, income from rent, private pensions, investment income, maintenance payments received, minor family benefits, sickness and maternity benefits, unemployment insurance and minor unemployment benefits, disability pensions, lifetime pension for mothers of many-children as well as all sorts of retirement benefits/pensions apart from *EKAΣ*.

- **Benefit amount**

The pension is payable 14 times a year to all eligible beneficiaries. Supplements are paid for a dependent spouse aged less than or equal to 65 and children aged less than or equal to 18, worth €3.1 and €6.2 per month respectively. The 2005-12 social pension rates are indicated below:

Table 2.8 Social pension rates (2005-2012), €/per month

	2005	2006	2007	2008	2009	2010	2011-12
Social pension	212.85	227.75	277.75	330.00	330.00	360.00	360.00

Applications reporting incomes above the threshold are rejected. In other words, rather than the benefit being gradually reduced as (other) income rises, it is fully withdrawn. Therefore, either the full amount is paid or no benefit at all.

- **Definitions**

The unit of analysis comprises the head, the spouse and own children aged up to 18.

- **EUROMOD notes**

Not receiving other pensions is modelled by excluding recipients of pension from *OIA*. If non-take up modelling is activated then social pension is simulated only for those actually observed in receipt. This is however limited to simulations using input datasets based on SILC2006 and SILC 2007.

² Therefore, it is possible for one spouse to be eligible for social pension if the other spouse receives *OIA* basic pension (same amount as social pension), provided s/he has no other income.



2.4.2 Pensioners' social solidarity benefit

This benefit, known as *EKAS*, is an income-tested supplement aimed at recipients of old age and survivor pension aged 60 and over, or recipients of invalidity pension or orphan's pension irrespective of age. It is restricted to those receiving a contributory social insurance pension; *OΓA* pensioners thus are excluded.

- *Eligibility conditions*

Beneficiaries must be 60 and over if in receipt of an old age pension or a survivor pension. There is no age condition if in receipt of an invalidity or orphans pension. Recipients of a farmer basic pension or a social pension are excluded.

- *Income test – benefit amount*

Three income concepts are assessed separately:

1. personal net income from retirement benefits and employment earnings
2. personal taxable income from all sources
3. family taxable income.

The annual income thresholds³ and the monthly benefit rates to which they corresponded in 2005-12 are shown in Table 2.9. Until 2009 the benefit was payable 14 times a year. Since 2010 it is payable 12 times a year.

Table 2.9 *EKAS* income thresholds and benefit rates (2005-2012)

Pension income thresholds (€per year)	2005	2006	2007	2008	2009	2010	2011-12
(a) Pension income and earnings for:							
Full rate	6,215.12	6,525.91	6,786.93	7,058.41	7,340.67	7,607.54	7,716.00
Reduced	6,458.88	6,781.86	7,053.12	7,335.25	7,628.58	7,905.51	8,018.00
Reduced	6,621.33	6,952.43	7,230.51	7,519.74	7,820.45	8,104.76	8,220.00
Reduced	6,824.25	7,165.71	7,452.32	7,750.42	8,060.35	8,353.38	8,472.00
Reduced	-	-	-	-	-	-	9,200.00
(b) All personal	7,961.87	8,360.00	8,694.38	9,042.16	9,403.68	9,745.62	9,884.00
(c) Family	12,389.65	13,009.20	13,529.50	14,070.73	14,633.00	15,165.39	15,381.00
Benefit rates (€per month)							
Full rate	149.67	160.15	195.15	230.00	230.00	230.00	230.00
Reduced rate A	112.25	120.11	146.36	172.50	172.50	172.50	172.50
Reduced	74.84	80.08	97.58	115.00	115.00	115.00	115.00
Reduced	37.42	40.04	48.79	57.50	57.50	57.50	57.50
Reduced	-	-	-	-	-	-	30.00

³ Note that assessment is based on tax returns of the year before the application, for incomes earned two years before the application (that is the most recent year for which a tax return is available). Since information on past incomes is not incorporated in EUROMOD, the income conditions are treated as if they referred to incomes earned in the application year.



- **Definitions**

The income concept used for the first income condition comprises employment earnings, sickness benefits, civil servants' family benefits and social insurance pensions of all types except farmer basic pension and social pension; net of employee social insurance contributions and income tax.

The income concept used for the second and third condition is the tax base. The tax base is defined as taxable income less employee and self-employed social insurance contributions. This is analysed in section 2.6.5.

The family unit is the same as for income tax purposes, i.e. it comprises the head, the spouse and dependent children. The latter are defined as: (a) unmarried, aged under 18, (b) unmarried, aged under 20 and registered in OAEA as unemployed, (c) unmarried, aged under 25 and enrolled in post secondary or tertiary education or fulfilling their military service, (d) unmarried, aged under 27, enrolled in post secondary or tertiary education and registered in OAEA as unemployed, (e) suffering from any kind of disability over 67% irrespective of age.

- **EUROMOD notes**

Dependent child definition used in the model is simplified and excludes military condition and condition (d) (the latter is not considered to be followed in practice anyway).

2.4.3 3rd child benefit

This benefit is targeted to families with a third child aged 6 years or less.

- **Eligibility conditions**

Access to 3rd child benefit is limited to families with three (or more) children until the third child reaches the age of six.

- **Income test**

The income test for access to 3rd child benefit was abolished in 2002.

- **Benefit amount**

The 2005-12 3rd child benefit rates are indicated below:

Table 2.10 3rd child benefit rates (2005-2012), €/per month

	2005	2006	2007	2008	2009	2010	2011-12
3 rd child benefit	154.27	159.82	164.45	170.86	174.28	178.81	177.00

- **Definitions**

The family comprises the head, the spouse and own children irrespective of age.

2.4.4 Large family benefit

This benefit is targeted to families with four or more children (of any age and irrespective of whether they live together with their parents or not). Since 2006 it is also paid to lone parents with three children, disabled parents (over 67%) with three children and children orphaned from both parents if they are two or more. Since 2008 large family benefit is also provided to families with three children.



- **Income test**

The income test for access to 3rd child benefit was abolished in 2002.

- **Benefit amount**

The 2005-12 large family benefit rates are indicated below:

Table 2.11 Large family benefit rates (2005-2012), €/per month, per eligible child

	2005	2006	2007	2008	2009	2010	2011-12
Large family benefit	38.57	39.95	41.10	42.71	43.55	44.68	44.00

Note that eligible children are those (a) unmarried and aged less than 23 years old or (b) suffering from any kind of disability over 67% irrespective of age. However, the third child is not eligible if parents are already receiving 3rd child benefit. Moreover, households receiving “lifetime pension for mothers of many children” are also ineligible.

- **Definitions**

The family comprises the head, the spouse and own children irrespective of age.

- **EUROMOD notes**

We have to note that, due to the fact that the benefit is provided to beneficiaries irrespective of whether their children live in the same household or not, large family benefit is also granted to persons with observed but not simulated benefit receipt.

2.4.5 Lump sum €2,000 birth grant

This is a lump sum birth grant, introduced in 2006.

- **Eligibility conditions**

Access to the benefit is limited to mothers giving birth to a third child or to each child over the third.

- **Benefit amount**

The benefit rate in 2006-12 was €2,000 per child (lump sum).

- **Definitions**

The family comprises the head, the spouse and own children irrespective of age.

2.4.6 Income support to families with children in compulsory education

This is a non-contributory, income based benefit, introduced in 2002.

- **Eligibility conditions**

It is paid to families with children aged 6 to 16 on the condition that they are in compulsory education.

- **Income test**

The annual taxable income of the family must not exceed €3,000. The definition of taxable income is provided in section 2.5.4.



- ***Benefit amount***

In 2005-12, the benefit was worth €300 a year per child.

- ***Definitions***

The unit of analysis for the income test comprises the head, the spouse and own unmarried children aged up to 18 or up to 25 if in upper secondary or tertiary education. For the eligibility condition, children's definition is narrowed to those aged 6 to 16 and in compulsory education.

- ***EUROMOD notes***

As we have no information about the educational level of people below 16, the benefit was assigned to persons whose current educational status was imputed as “primary”, “lower secondary” or “upper secondary”. Additionally, we have extended the family concept to the so-called loose children (i.e. a child without parents specified).

2.4.7 Unemployment assistance for older workers

This benefit, introduced in 2002, was aimed partly to fill the coverage gap left by contributory unemployment insurance. Note that the latter explicitly excludes the long-term unemployed, as eligibility expires after 12 months at the latest. No general unemployment assistance scheme exists.

- ***Eligibility conditions***

Unemployment assistance for older workers is targeted to long-term unemployed workers aged 45-65 on low incomes.

- ***Income test***

The annual income threshold in 2005-12 was €5,000 plus €587 for every child. Once family income is equal or higher than that, the benefit is fully withdrawn. Incomes that are taken into account for the calculation of the threshold are: employment and self-employment income, other market income (received by children), income from rent and private transfers, education allowances, civil servants' family benefit, disability pensions, *OFA* large family benefits as well as all sorts of retirement benefits/pensions apart from social pension.

- ***Benefit amount***

The monthly benefit rate in 2005-12, paid 12 times per year, was €200.

- ***Definitions***

The unit of analysis comprises the head, the spouse and own children aged up to 18.

- ***Accounting for non-take-up***

Non-take-up for this unemployment benefit is known to be rife.⁴ In order to account for that fact, the benefit is simulated only for those actually observed in receipt. (Alternatively, a user can activate the function in the policy sheet which applies (randomly) 5% non-take up among simulated beneficiaries. This adjustment is further controlled by the master switch for non-take up in the spine, i.e. policy *nontakeup_el.*)

⁴ When the benefit was first introduced (2002), the official prediction was that the beneficiaries would amount to 35,000; the benefit reached 711 persons instead.



- **EUROMOD notes**

Being long-term unemployed is modelled as being unemployed in the current year ($lunmy > 0$) and not in receipt of the contributory unemployment benefit ($bunct_s = 0$). Benefit amount is additionally adjusted with the number of months in receipt ($lunmy_s$, defined in the contributory unemployment benefit policy).

2.4.8 Unemployment insurance benefit

This benefit is paid to dependent workers who are involuntarily unemployed, capable and available for work and registered with an *OAEA* employment office. In order to receive the benefit, they have to be insured and have a specific contributions history.

- **Eligibility conditions**

Person must have been insured with any social insurance fund, and have accumulated the following contribution days:

- First-time claimants need to have worked and paid contributions for either (i) 80 days per year over the last two years, of which at least 125 days must be in the last 14 months excluding the last two months, or (ii) 200 days in the last two years excluding the last two months, of which at least 80 days in each of the last two years.
- Second-time claimants need to have worked and paid contributions for 125 days over the last 14 months excluding the last two months.
- Seasonal workers need to have worked and paid contributions for 100 days over the last 12 months.
- Construction workers and fishermen need to have worked and paid contributions for 100 days over the last 14 months.

- **Benefit amount**

Since 12th March 2012 unemployment insurance benefit was reduced by 22%. The benefit rates in 2005-2012 are indicated in Table 2.12. The rate is raised by 10% for each dependent family member up to the third. The benefit is payable for at most 12 months, average duration being seven months. A part of the benefit is still payable if the person finds an occasional or part-time employment of up to three non-consecutive days per week.

Table 2.12 Unemployment insurance benefit rates (2005-2012), €per month

	2005	2006	2007	2008	2009	2010	2011-12
Unemployment insurance benefit	311.25	311.25	367.38	404.11	454.25	454.25	360.00

- **Benefit duration**

The benefit's duration is a function of contributory record according to the table below:

Table 2.13 Duration of unemployment insurance benefit

General category	Number of contributory days		Benefit duration in months
	Seasonal workers	Construction workers	
Over the last 14 months excl. the last 2 months	Over the last 12 months	Over the last 14 months	
125-149 ^[a]	100-149 ^[a]	100-149 ^[a]	5
150-179 ^[b]	150-179 ^[b]	150-179 ^[b]	6
180-219 ^[c]	180-219 ^[c]	180-219 ^[c]	8



220-249	220-249	220-249	10
250+	250+	250+	12
210+ if aged 49+	210+ if aged 49+	210+ if aged 49+	12

Notes: [a] or 200 days over the last 2 years
 [b] or 250 days over the last 2 years
 [c] or 300 days over the last 2 years

- **Definitions**

The definition of family members includes: a) the spouse, b) unmarried children up to 18 or up to 26 if in full time education or up to 24 if unemployed, c) the parents of the beneficiary, d) unmarried, orphan grandchildren and siblings up to 18. In order to be considered as dependent, the person has to be registered to the family health booklet of the unemployed.

- **EUROMOD notes**

The benefit is modelled in such a way that those currently employed can be also covered if needed (e.g. to simulate their entitlement if they become unemployed, for replacement rates calculations).

Unemployment duration (*lunmy_s*) is set equal to the observed unemployment duration (*lunmy*) or observed number of months in receipt of unemployment benefit (*bunctmy*), whichever is longer. If modelling unemployment benefit for those currently employed, unemployment duration is set equal to the reported number of months in employment in the current year (*liwmy*), once contribution history (see the next step) is modelled. It is effectively also assumed that unemployment spells start in the reference year. Simulated unemployment duration is also used for unemployment assistance for older workers.

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

- For those currently employed ($l_{nu} > 0$), this is used.
- For those currently unemployed ($l_{unmy_s} > 0$) and in receipt ($b_{unct} > 0$), this is set at least equal to the minimum qualifying period.
- For those currently unemployed ($l_{unmy_s} > 0$) and not in receipt ($b_{unct} = 0$), this is set to zero.

At this point, people who are unemployed ($l_{unmy_s} > 0$) and with sufficient contribution history are considered eligible. It is assumed that all of them belong to the general category, are involuntarily unemployed and capable and available for work (there is a variable in the SILC data identifying the latter but only filled in for those currently unemployed).

Benefit duration (*bunctmy_s*) is derived from the underlying dataset. For currently employed, a further cap is imposed corresponding roughly to the average duration observed.

The condition for dependent family member (being registered to the family health booklet) is proxied by the lack of certain sources of income (employment income, self-employment income and income from state pensions).

Finally, the benefit amount is adjusted with the number of months in receipt.

2.4.9 Lump-sum heating benefit (only valid in 2009)

This is a non-taxed emergency benefit, paid only in 2009 to vulnerable population groups.



- **Eligibility conditions**

The benefit was paid to *OFA* pensioners as well as to the recipients of either pensioners' social solidarity benefit, non-contributory disability benefits, social pension or unemployment benefits.

- **Benefit amount**

Its amount was €100, €150 or €200, depending on the residential place of beneficiaries (southern part of the country, midlands and northern part of the country respectively).

- **Definitions**

The unit of analysis comprises individuals. The benefits used for the eligibility condition are the following: *OFA* old age pension, pensioners' social solidarity benefit, social pension, unemployment insurance benefit, unemployment assistance for older workers, other unemployment benefits and non-contributory disability benefits.

- **EUROMOD notes**

The simulated benefit amount in EUROMOD was set to €150 for all of the eligible individuals due to lack of information about the NUTS-3 level of residence (*prefectures*) of inhabitants in the sample.

2.4.10 Lump-sum benefit to civil servants (only valid in 2009)

This is a means-tested emergency benefit, only paid in 2009.

- **Eligibility conditions**

The benefit was paid to civil servants, both at work and retired (lump-sum).

- **Income test - benefit amount**

The rates of the benefit were €500 for retired civil servants with gross monthly pension up to €800 or working civil servants with salaries up to €1,500 per month (pension and salary rates as in 31st December 2008) and €300 for retired civil servants with gross monthly pension between €800.01 and €1,100 or working civil servants with salaries between €1,500.01 and €1,700 per month (pension and salary rates as in 31st December 2008).

- **Definitions**

The unit of analysis comprises individuals. The concept used for the eligibility condition was the receipt of basic old age pension (*poa00*) from the civil servants' social insurance fund (*lpmrf=7*) or the receipt of employment income (*yem*) of people contributing to the civil servants' social insurance fund (*lpmfc=7*).

- **EUROMOD notes**

In EUROMOD, the pension rate used for the income test was the one applicable in 2009.

2.4.11 Abolishment of 13th and 14th pensions and compensations (valid from 2010)

Until 2009 retirement pensions were paid 14 times per year. Since 1st January 2010 they are paid 12 times per year, with the exception of social pension, farmers' basic pension, invalidity pensions and pensions that do not exceed €400 per month. Christmas, Easter and vacations bonuses were established for pensioners fulfilling specific age and income criteria.



- *Eligibility conditions*

Compensations are only paid to pensioners above 60.

- *Income test - benefit amount*

Pensioners with average pensions plus bonuses less than €2,500 per month, whose 13th and 14th pensions are cut, receive €200 as Easter bonus, €200 as vacations bonus and €400 as Christmas bonus. If average pensions plus bonuses exceed €2,500 per month, bonuses are provided up to the approach of that threshold.

- *Definitions*

The unit of analysis comprises individuals.

2.4.12 Lump sum benefit to low-paid pensioners (only valid in 2011)

This is a means-tested emergency benefit, only paid in 2011 as a lump-sum.

- *Eligibility conditions*

The benefit was reserved for people over 60 years of age that were not in receipt of any *OΓA* pension.

- *Income test - benefit amount*

The benefit's income thresholds and rates are presented in the table below:

Table 2.14 Lump sum benefit to low-paid pensioners

Income thresholds (€per year)	2011
(a) personal income	
full rate	7,000
reduced rate A	8,500
reduced rate B	10,500
(b) family taxable income	
full rate	12,000
reduced rate A	14,500
reduced rate B	16,500
Benefit rates (€per month)	
full rate	300
reduced rate A	200
reduced rate B	100

- *Definitions*

The family unit is the same as for income tax purposes, i.e. it comprises the head, the spouse and dependent children.

2.5 Social contributions

Social insurance in Greece, as explained earlier, is highly fragmented. In view of that, attempting to simulate all possible cases would be rather futile. Instead, each occupational category is represented by the largest social insurance fund for that category. This is shown in Table 22. Pensioners' social contributions are also simulated.



- **EUROMOD notes**

Identifying contributors in the "old" and "new" regimes, contributors in hazardous occupations, as well as the procedure for placing contributors in insurance classes for all self-employed workers, is explained in section 3.3.4.

Reference earnings (see more below) are equated to employment earnings reported in EU-SILC.

2.5.1 Employers

IKA rules are used to simulate private sector employer social contributions, as shown in Table 2.15.

Table 2.15 Employer social contributions simulated (2005-2012)

Social insurance contributions (SIC)	% of reference earnings	
	2005-2011	2012
Case 1: general regime		
Primary pension	13.33	13.33
Supplementary pension	3.00	3.00
Sickness insurance	5.10	5.10
Unemployment insurance (<i>OAEA</i>)	2.67	3.17
Family benefits (<i>OAEA</i>)	1.00	1.00
Housing and other benefits (<i>OAEA, OEK, Εργατική Εστία</i>)	2.96	2.96
Total SIC: general regime	28.06	28.56
Case 2: hazardous occupations		
Primary pension	1.40	1.40
Supplementary pension	0.75	0.75
Extra SIC: hazardous occupations	2.15	2.15
Total SIC: hazardous occupations	30.21	30.71

- **Upper threshold on earnings**

The 2005-2012 upper earnings thresholds, applicable to both employers' and employees' social insurance contributions, are presented in Table 2.16.

- **EUROMOD notes**

IKA contribution rules are applied to all private sector employees and seamen (*lpmfc*=1).

Upper threshold on earnings is adjusted with the number of months receiving employment income (*yemmy*).



2.5.2 Employees

2.5.2.1 Private sector employees

Workers insured with IKA pay social contributions at a flat rate of 16% (16.5% since 2012) of “reference earnings”. Reference earnings reflect the notional wage for every one of IKA’s 28 insurance classes where private sector employees are placed according to their actual earnings. Civil servants, employees in public enterprises and banking employees are covered by separate schemes.

Occupations that are officially classified as “hazardous” are subject to extra contributions at 3.45% of earnings. This is shown in Table 2.16 and further discussed in Section 3.

Table 2.16 Private sector employees’ social contributions simulated (2005-2012)

Social insurance contributions (SIC)	% of reference earnings	
	2005-2011	2012
Case 1: general regime		
Primary pension	6.67	6.67
Supplementary pension	3.00	3.00
Sickness insurance	2.55	2.55
Unemployment insurance (OAEA)	1.33	1.83
Family benefits (OAEA)	1.00	1.00
Housing and other benefits (OAEA, OEK, OEE)	1.45	1.45
Total SIC: general regime	16.00	16.50
Case 2: hazardous occupations		
Primary pension	2.20	2.20
Supplementary pension	1.25	1.25
Extra SIC: hazardous occupations	3.45	3.45
Total SIC: hazardous occupations	19.45	19.95

The 2005-2012 upper earnings thresholds are presented below:

Table 2.17 IKA upper earnings thresholds (2005-2012), €per month

	2005	2006	2007	2008	2009-12
Workers first insured before 31 December 1992	2,140.50	2,226.00	2,315.00	2,384.50	2,432.25
Workers first insured after 1 January 1993	4,881.26	5,076.51	5,279.57	5,437.96	5,543.55

- **EUROMOD notes**

IKA contribution rules are applied to all private sector employees and seamen (lpmfc=1).

Upper threshold on earnings is adjusted with the number of months receiving employment income (yemmy).



2.5.2.2 Civil servants

Civil servants' total wage is the sum of the basic wage and of various allowances (for seniority etc). It is thought that such allowances comprise approximately 20% of a civil servant's total earnings.⁵ Reference earnings (RE) are civil servants' total wage. Different contribution rates apply for the basic wage (assumed to be equal to 80% of RE) and for the additional allowances (assumed to be equal to 20% of RE). Social contribution rates of civil servants are analysed in Table 2.18.

Table 2.18 Civil servants' social contributions simulated (2005-2012)

Social insurance contributions (SIC)	2005-2010	2011-12	% of reference earnings
	Rate	Rate	Derivation
Case 1: contributors to the "old" regime			
Primary pension	5.34%	5.34%	6.67% × (80% of RE)
Supplementary pension (TEAY)	2.80%	2.80%	3% × (80% of RE) + 2% × (20% of RE)
Other benefits (MTIY)	3.40%	3.40%	4% × (80% of RE) + 1% × (20% of RE)
Sickness benefits (OPIA)	2.55%	2.55%	2.55% × (100% of RE)
Separation payment (TPIY)	3.20%	3.20%	4% × (80% of RE)
Unemployment benefits (OAEA)	-	2.00%	2% × (100% of RE)
Total SIC	17.29%	19.29%	
Case 2: contributors to the "new" regime			
Primary pension	6.67%	6.67%	6.67% × (100% of RE)
Supplementary pension (TEAY)	3.00%	3.00%	3% × (100% of RE)
Other benefits (MTIY)	3.40%	3.40%	4% × (80% of RE) + 1% × (20% of RE)
Sickness insurance (OPIA)	2.55%	2.55%	2.55% × (100% of RE)
Separation payment (TPIY)	4.00%	4.00%	4% × (100% of RE)
Unemployment benefits (OAEA)	-	2.00%	2% × (100% of RE)
Total SIC	19.62%	21.62%	

2.5.2.3 Public enterprise workers

Those working in the public utilities are insured in a variety of enterprise-specific insurance schemes. Compared to IKA, these schemes generally levy higher contributions and provide more generous benefits. The rules simulated here are those applying to the social insurance fund of TAI-OE. Employee social contributions at TAI-OE are shown in Table 2.19. In 2008 the vast majority of public enterprise workers' social insurance funds were merged with IKA. However, the merger did not affect contributions paid or benefits received.

Table 2.19 TAI-OE social contributions simulated (2005-2012)

Social insurance contributions (SIC)	% of reference earnings	
	2005-10	2011-12
Case 1: contributors to the "old" regime		
Primary pension	11.00	11.00
Supplementary pension	3.00	3.00

⁵ "The salaries of civil servants in EU countries", Journal of *INE-TSEE*, issue 79, Jan 2002.



Sickness insurance	2.55	2.55
Additional benefits	7.00	7.00
Total SIC	23.55	23.55
Case 2: contributors to the “new” regime		
Primary pension	6.67	6.67
Supplementary pension	3.00	3.00
Sickness insurance	2.55	2.55
Separation payment	4.00	4.00
Unemployment insurance (OAEA)	1.33	1.83
Family benefits (OAEA)	1.00	1.00
Housing and other benefits (OAEA, OEK, Εργατική Εστία)	1.45	1.45
Extra SIC: hazardous occupations	3.45	3.45
Total SIC: non hazardous occupations	20.00	20.50
Total SIC: hazardous occupations	23.45	23.95

2.5.2.4 Banking employees

Employees of (formerly) state-controlled banks⁶ are insured in separate social insurance funds, generally levying higher contributions and providing more generous benefits. The rules simulated here are those pertaining to the social insurance fund of the National Bank of Greece (ETE). Employee social contributions at ETE are shown in Table 2.20. In 2008 banking employees' social insurance funds were merged with IKA. However, the merger did not affect contributions paid or benefits received.

Table 2.20 ETE social contributions simulated (2005-2012)

Social insurance contributions (SIC)	% of reference earnings	
	2005-10	2011-12
Case 1: contributors to the “old” regime		
Primary pension	11.00	11.00
Supplementary pension	3.50	3.50
Sickness insurance	2.55	2.55
Unemployment insurance (OAEA)	1.33	1.33
Family benefits (OAEA)	1.00	1.00
Housing and other benefits (OAEA, OEK, Εργατική Εστία)	1.45	1.45
Separation payment	4.50	4.50
Total SIC	25.33	25.33
Case 2: contributors to the “new” regime		
Primary pension	6.67	6.67
Supplementary pension	3.00	3.00
Sickness insurance	2.55	2.55
Unemployment insurance (OAEA)	1.33	1.83
Family benefits (OAEA)	1.00	1.00
Housing and other benefits (OAEA, OEK, Εργατική Εστία)	1.45	1.45
Separation payment	4.00	4.00
Extra SIC: hazardous	3.45	3.45
Total SIC: non hazardous occupations	20.00	20.50
Total SIC: hazardous occupations	23.45	23.95

⁶ Although most of these banks have been partly or fully privatised since the early 1990s, this has not affected the special status enjoyed by their employees in terms of social insurance.



2.5.2.5 Liberal professions

The liberal professions mainly include medical doctors, lawyers and engineers. The relevant social insurance funds insuring these categories are collectively known as “noble funds” for the high level of benefits and quality of services they usually provide. The rules simulated here are those applying to the social insurance fund of medical doctors (*TΣAY*). *TΣAY*'s 2005-2012 social contribution rates for employees are presented in Annex 6.3.

- **EUROMOD notes**

Fixed amounts paid by employees are adjusted with the number of months receiving employment income (yemmy).

2.5.3 Self-employed workers

2.5.3.1 Own account workers

Social contributions of own-account workers are simulated on the basis of *TEBE*. In 2005 there were 10 insurance classes (A to J) for those first insured in *TEBE* before 1st January 1993. Contributors were first allocated to insurance class E. After a year they moved to insurance class F, after another five years to insurance class G, and after another four years to insurance class H, the highest compulsory one. For those first insured in *TEBE* after 1st January 1993 there are 14 insurance classes (1 to 14); the first five are compulsory, the next nine optional. Contributors are first allocated to insurance class 1. Every two years contributors move up one class, until they reach insurance class 5 where they can remain until retirement, unless they choose to be insured according to an optional class. From 2007 all self-employed workers insured with *OAE* (merger of *TEBE*, *TAE* and *TΣA*), irrespective of the date they were first insured, are placed in 14 insurance classes (1-10 compulsory, 11-14 optional). *TEBE*'s 2005-2012 social contribution rates are presented in Annex 6.1.

- **EUROMOD notes**

TEBE contributions are modelled separately for 2005-06 (sheet *tscseA_el*) and 2007-12 (sheet *tscseB_el*) as in the latter period this group was merged with *TAE* workers.

2.5.3.2 Other self-employed workers

Social contributions of other self-employed workers are simulated on the basis of *TAE* (the social insurance fund for shopkeepers). Social contributions are set at fixed amounts per insurance class, according to a schedule revised annually. In *TAE* there are three insurance classes for those first employed before 1st January 1993 plus another five for later entrants to the labour market. *TAE*'s 2005-2012 social contribution rates are presented in Annex 6.2.

- **EUROMOD notes**

TAE contributions for modelled separately for 2005-06 (sheet *tscse02_el*) and 2007-12 (sheet *tscseB_el*) as in the latter period this group was merged with *TEBE* workers.

2.5.3.3 Liberal professions

The rules simulated here are again those applying to the social insurance fund of medical doctors (*TΣAY*). *TΣAY*'s 2005-2012 social contribution rates for self-employed are presented in Annex 6.3.



2.5.4 Farmers

The most typical unit of the agricultural economy in Greece is the small family farm. As a consequence, most farmers are self employed. In view of that, contributions are defined in proportion to a notional income in seven insurance classes, revised annually. The social contributions rate corresponding to each insurance class is set at 7% of notional income for pension insurance and 1.5% (2.5% since 2011) of notional income for sickness insurance. Fixed amounts per insurance class are paid for additional benefits.

Contributors can choose freely which insurance class to place themselves in. In 2005, about 80% of contributors were in (lowest) class 1. Farmers' 2005-2012 social contribution rates are presented in Annex 6.4.

2.5.5 Pensioners

Pensioner social contributions are levied at a flat rate of 4% of pension income (i.e. main and supplementary old age pensions, minor old age pensions, orphans' and widows' pensions, disability pensions, pensioners' social solidarity benefit and social pension). Such contributions pay for sickness insurance and are deducted at source. Social contributions are not levied on Christmas, Easter and vacation bonuses (applicable since 2010).

2.6 Personal income tax

The main tax simulated for Greece is personal income tax. Personal income tax receipts amounted to €3,315 million in 2005, which corresponds to about 20% of all tax revenue or 4% of GDP (i.e. excluding social contributions that are treated separately).

2.6.1 Tax unit

Tax unit for personal income tax is individual. Spouses file a joint income tax return, but their incomes are entered separately and taxed individually.

However, there is a partial exception to this rule: some tax allowances and/or tax credits are jointly assessed. The tax unit for the joint assessment of tax allowances/credits is broader as it includes both spouses and dependent children. The latter are defined as: (a) unmarried, aged under 18, (b) unmarried, aged under 20 and registered in OAEΔ as unemployed, (c) unmarried, aged under 25 and enrolled in post-secondary or tertiary education or fulfilling their military service, (d) unmarried, aged under 27, enrolled in post-secondary or tertiary education and registered in OAEΔ as unemployed, (e) suffering from any kind of disability over 67% irrespective of age. Note that once such allowances/credits (e.g. child tax allowance) are determined these are shared between (relevant) adults only.

- *EUROMOD notes*

Dependent child definition used in the model is simplified and excludes military condition and condition (d) (the latter is not considered to be followed in practice anyway).

2.6.2 Tax schedule

Income taxation is graduated, with progressively higher marginal tax rates applying to higher income brackets. The tax schedule in 2005-2012 is shown in Tables 2.21- 2.26.



Table 2.21 Tax schedule: general case (2005-2006)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	9,500	0
2	9,501	13,000	15
3	13,001	23,000	30
4	23,001	...	40

Table 2.22 Tax schedule: general case (2007)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	10,500	0
2	10,501	12,000	15
3	12,001	30,000	29
4	30,001	75,000	39
5	75,001	...	40

Table 2.23 Tax schedule: general case (2008)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	10,500	0
2	10,501	12,000	15
3	12,001	30,000	27
4	30,001	75,000	37
5	75,001	...	40

Table 2.24 Tax schedule: general case (2009)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	10,500	0
2	10,501	12,000	15
3	12,001	30,000	25
4	30,001	75,000	35
5	75,001	...	40

Table 2.25 Tax schedule: general case (2010)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	12,000	0
2	12,001	16,000	18
3	16,001	22,000	24
4	22,001	26,000	26
5	26,001	32,000	32
6	32,001	40,000	36
7	40,001	60,000	38
8	60,001	100,000	40
9	100,001	...	45



Table 2.26 Tax schedule: general case (2011-12)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	5,000	0
2	5,001	12,000	10
3	12,001	16,000	18
4	16,001	26,000	25
5	26,001	40,000	35
6	40,001	60,000	38
7	60,001	100,000	40
8	100,001	...	45

In the case of tax payers with income from employment earnings and/or retirement benefits (i.e. main and supplementary old age pensions, minor old age pensions, disability pensions, orphans' and widows' pensions, social pension and pensioners' social solidarity benefit) the upper limit to tax band 1 could be extended by up to €1,500 per annum⁷. Note that in 2008-09 in order for employees and pensioners with additional self-employment or property income to be eligible for this favorable tax treatment, their self-employment and property income should be less than 50% of total taxable income. In 2010 the general tax schedule applied to all tax payers. Since 2011 the upper limit to tax band 1 was €9,000 for tax payers below 30 and above 65 with gross personal income below €9,000. The resulting tax schedule for 2005-12 is shown in Tables 2.27 – 2.31.

Table 2.27 Tax schedule: employees and pensioners (2005-2006)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	11,000	0
2	11,001	13,000	15
3	13,001	23,000	30
4	23,001	...	40

Table 2.28 Tax schedule: employees and pensioners (2007)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	12,000	0
2	12,001	30,000	29
3	30,001	75,000	39
4	75,001	...	40

⁷ The justification for this seems to be the perceived need to compensate employees and pensioners for the fact that other categories of tax payers (e.g. the self-employed) are widely believed to understate their true incomes in order to evade tax.



Table 2.29 Tax schedule: employees and pensioners (2008)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	12,000	0
2	12,001	30,000	27
3	30,001	75,000	37
4	75,001	...	40

Table 2.30 Tax schedule: employees and pensioners (2009)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	12,000	0
2	12,001	30,000	25
3	30,001	75,000	35
4	75,001	...	40

Table 2.31 Tax schedule: persons below 30 / above 65 with gross personal income below €9,000 (2011-12)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	9,000	0
2	9,001	12,000	10
3	12,001	16,000	18
4	16,001	26,000	25
5	26,001	40,000	35
6	40,001	60,000	38
7	60,001	100,000	40
8	100,001	...	45

2.6.3 Exemptions

Unemployment benefits, social assistance benefits and some family benefits provided by local government at the level of prefecture (such as unprotected children benefit and single parent benefit) are not taxed as income. Employment or pension income of persons suffering from any kind of disability over 80% is also tax-exempted. From 1st January 2010, unemployment benefits, large family benefit, 3rd child benefit, lifetime pension for mothers of many children, lump sum €2,000 birth grant and non-contributory disability benefits are taxed for individuals with (other) taxable income over €30,000.

2.6.4 Tax allowances

Tax allowances here are defined as deductions from taxable income. They include employee social insurance contributions, child tax allowance, mortgage interest tax allowance, disability tax allowance, installation of natural gas (etc) systems tax allowance, private insurance contributions tax allowance as well as charitable donations tax allowance. Note that most tax allowances are per tax unit, i.e. they are shared between the main taxpayer and his/her spouse. All except charitable donations tax allowance are simulated in EUROMOD.



2.6.4.1 Child tax allowance

Depending on the number of children in the family, the lowest income bracket (tax rate 0%) is raised by the amounts shown in Table 2.32.

Table 2.32 Child tax allowance (2005-2012)

No. of children	Child tax allowance (€per tax unit per annum)		
	2005-09	2010	2011-12
0	0	0	0
1	1,000	1,500	2,000
2	2,000	3,000	4,000
3	10,000	11,500	7,000

In 2005-09 a further €1,000 increase in the lowest income bracket is applicable for each subsequent child after the 3rd. In 2010 (2011-12), a further €2,000 (€3,000) increase in the lowest income bracket is applicable for each subsequent child after the 3rd. As an illustration, Table 2.31 below shows the tax schedule faced by a single earner employee with two dependent children in 2006. Note that the child tax allowance affects the tax schedule as well.

Table 2.33 Tax schedule: single earner employee with two dependent children (2006)

Tax band	Income bracket (€per annum)		Tax rate (%)
	Lower limit	Upper limit	
1	0	13,000	0
2	n.a.	n.a.	15
3	13,001	23,000	30
4	23,001	...	40

In the case of two-earner households, the child tax allowance is allocated to the highest earner (i.e. the spouse with the highest taxable income). In the case of married couples, if after taking into account the child tax allowance, the main earner's taxable income does not reach the upper bound of tax band 1 (tax rate 0%), the balance is transferred to the secondary earner.

2.6.4.2 Mortgage interest tax allowance

The interest – not capital – component of housing loan repayments is tax deductible, in part or in full, according to the date the housing loan was taken out.

In 2005-12 tax rules distinguish between the following cases:

- Housing loans taken out before 31st December 1999: interest repayments are fully exempted from taxable income.
- Housing loans taken out between 1st January 2000 and 31st December 2002: interest repayments are exempted in full for housing units of up to 120m²; for housing units exceeding 120m², the exemption is calculated on a *pro rata* basis.
- Housing loans taken out between 1st January 2003 and 31st December 2008: tax relief is provided as a **tax credit** at a flat rate of 20% of interest repayments for mortgages of up to €200,000 and housing units of up to 120m²; for mortgages exceeding that amount and housing units exceeding 120m², the tax credit is calculated on a *pro rata* basis. Note that the €200,000 limit applies to the tax unit, not individual taxpayers.



- Housing loans taken out between 1st January 2009 and 31st December 2009: in 2009, tax relief was provided as a **tax credit** at a flat rate of 40% of interest repayments for mortgages of up to €350,000 and housing units of up to 200m²; for mortgages exceeding that amount and housing units exceeding 200m², the tax credit is calculated on a *pro rata* basis. In 2010, the same conditions are used as for housing loans taken out between 2003 and 2008 (see the previous paragraph).
- Since 2011, tax relief is **only** provided as a **tax credit** (irrespective of the year that the loan was taken) at a flat rate of 10% of interest repayments for mortgages of up to €200,000 and housing units of up to 120m²; for mortgages exceeding that amount and housing units exceeding 120m², the tax credit is calculated on a *pro rata* basis.
- **EUROMOD notes**

Mortgage interest payments are reported at the household level in the original data but split (equally) between people responsible for accommodation in the household (as defined in the original data) in the EUROMOD input dataset. Subsequently, mortgage interests allowance is first split between people responsible for accommodation in proportion to their taxable income and in the second step between spouses (again in proportion to their taxable income). Mortgage interest tax credit is in the second step split between spouses in proportion to their *gross tax liability*.

Note that the 2009 regulation for housing loans taken out between 1st January 2009 and 31st December 2009 is not modelled here as (a) the dataset is earlier than 2009 and hence does not include any of these cases and (b) it was abolished in 2010.

2.6.4.3 Disability tax allowance

In 2005-06, a €1,900 increase in the lowest income bracket was applicable for blind persons, persons suffering from disability over 67%, kidney disease or thalassemia. In 2007 the increase in the lowest income bracket was raised to €2,400.

2.6.4.4 Installation of natural gas/ solar/ photovoltaic systems tax allowance

In 2005-06, 20% of expenses for installation of natural gas/ solar/ photovoltaic systems were exempted from taxable income up to a maximum of €500 per year. In 2007-09, 20% of these expenses were exempted from taxable income up to a maximum of €700 per year.

In 2010 this tax relief was provided as a **tax credit** at a flat rate of 10% of installation expenses up to a maximum tax credit of €600 annually. In 2011 the maximum tax credit was reduced to €300 annually.

2.6.4.5 Private insurance contributions tax allowance

In 2005-07, private insurance contributions were exempted from taxable income in full up to a maximum of €1,100 per year. In 2008-09 the maximum amount was raised to €1,200 per year. Note that this tax allowance is jointly assessed, and that the maximum amount applies to the tax unit (not individual taxpayers).

In 2010 it was provided as a **tax credit** at a flat rate of 20% of private insurance contributions up to a maximum tax credit of €240 annually for unmarried persons and €80 for married couples.

Since 2011 it is provided as a **tax credit** at a flat rate of 10% of private insurance contributions up to a maximum tax credit of €120 annually for unmarried persons and €40 for married couples.



2.6.4.6 Charitable donations tax allowance

In 2005-09 charitable donations over €100 per year were fully exempted from taxable income. The tax allowance was jointly assessed: individual expenditures on charitable donations were summed up across all tax unit members.

In 2010 it was provided as a **tax credit** at a flat rate of 20% of charitable donations. In 2011 the rate fell to 10% of charitable donations. Note that donations cannot exceed 10% of total taxable income.

2.6.5 Tax base

Taxable income includes several sources of income. More specifically, the definition of taxable income includes the following income sources: employment and self-employment income, other market income (received by children in SILC), income from rent, private transfers received, education allowances, civil servant's family benefit, sickness benefits, pensioners' social solidarity benefit, disability pensions, main and supplementary old age pensions, minor old age pensions, orphans' and widows' pensions. Since 1st January 2010 unemployment benefits, large family benefit, 3rd child benefit, lifetime pension for mothers of many children, lump sum €2,000 birth grant and non-contributory disability benefits are also part of the tax base for individuals with (other) taxable income over €30,000.

The tax base is defined as taxable income minus the various tax allowances described above. In EUROMOD, the latter covers social insurance contributions (employee SIC, self-employed SIC (incl. farmers), pensioners SIC), mortgage interest tax repayments, installation of natural gas/ solar/ photovoltaic systems expenses, private insurance contributions and disability tax allowance. Note that, different from these, the child tax allowance does not affect tax base but changes the tax schedule.

2.6.6 Tax credits

Tax credits are defined as deductions from tax due.

2.6.6.1 Self-employed social insurance contributions tax credit

Until 2010 self-employed social insurance contributions were fully deducted from taxable income. Since 2011 this tax relief is provided as a tax credit, calculated as 10% of social insurance contributions paid up to a maximum tax credit of €1,000 annually.

2.6.6.2 Rent tax credit

The rent tax credit is calculated as 20% of rent paid up to a maximum tax credit of €20 annually in 2005-2006 and €40 in 2007-2010. Since 2011 the tax credit is calculated as 10% of rent paid up to a maximum tax credit of €100 annually. To be eligible one cannot be in receipt of housing benefits.

2.6.6.3 Student rent tax credit

The student rent tax credit is calculated as 20% of rent paid up to a maximum tax credit of €20 annually in 2005-2006 and €40 in 2007-2010. Since 2011 the tax credit is calculated as 10% of rent paid up to a maximum tax credit of €100 annually.



2.6.6.4 Maintenance payments tax credit

In 2005-2010 the tax reduction was 20% of maintenance payments for alimonies up to a maximum tax credit of €600 per year. Since 2011 the tax reduction is 10% of maintenance payments up to a maximum tax credit of €1,500 per year.

2.6.6.5 Medical expenses and expenses for elderly care tax credit / allowance

Medical expenses and expenses for elderly care are partly deducted from tax due.

In 2005-10, the tax credit was calculated as 20% of the sum of medical expenses plus *half* the expenditure on care for the old. The tax credit could not exceed €6,000 per taxpayer. Since 2011, the tax credit is calculated as 10% of the sum of medical expenses plus half the expenditure on care for the old and the tax credit cannot exceed €3,000 per taxpayer.

2.6.6.6 Education expenses tax credit

Expenses on private lessons or cramming school fees are partly deducted from tax due.

In 2005-06 the tax credit was calculated as 20% of education expenses up to a maximum of €20 per year. In 2007-10 the tax credit was again calculated as 20% of education expenses but up to a maximum of €240 per year. Since 2011 the tax credit is calculated as 10% of education expenses up to a maximum of €100 per year.

2.6.6.7 Expenses for lawyers tax credit

In 2009 expenses for the payment of lawyers were partly deducted from tax due. The tax credit was calculated as 20% of expenses.

2.6.6.8 Household expenses tax credit (not simulated)

During 2005-06 this tax credit was abolished. From 1st August 2007, household expenses tax credit was reintroduced, calculated as 40% of household expenses up to a maximum tax credit of €2,300 per annum for both spouses. Such expenses include weddings and christenings expenses, restaurant meals, various services, housing maintenance etc. The tax credit was again abolished in 2010.

- ***EUROMOD notes***

As rent payments are reported at the household level in the original data, maximum credit amount is applied at the household level and rent tax credit is split between people responsible for accommodation in the household (as defined in the original data) in proportion to their taxable income. In the next step it is then split between spouses in proportion to their tax base. The same approach is used for mortgage tax credit.

Maintenance payments, medical expenses and education expenses are also reported at the household level in the original data, but assigned to the person whose age is closest to 45 (either below or above). If there is more than one such person then it is assigned to the one who appears first in the household (by idperson). Hence these credits are also simulated for that person.

In EUROMOD, as no detailed information about the nature of medical expenditure is available, it is all treated as hospital expenditure, and is thus deducted from tax due.

Household expenses tax credit is not simulated due to data constraints.



2.6.7 Withholding tax on benefits

Certain benefits are taxed at source at 10% plus 1.2% stamp duty. When, after the financial year is over, beneficiaries file a tax return, they can choose either to have their benefits taxed as normal income, or to have their liability exhausted with the tax already withheld. In the former case, the 10% tax deducted at source (not the stamp duty) will be assessed against tax due. In the latter case, benefits will be taxed at a flat rate of 10% + 1.2%. The unit of analysis is individual.

In theory, the rule means that rational taxpayers have benefits taxed as income only when their marginal tax rate is below 10%. In practice, few tax payers enter income from certain benefits in their tax return.

In view of the above, the withholding tax on benefits is assumed to apply to the following benefits alone:

- 3rd child benefit (bchlg)
- large family benefit (bfalg)
- lifetime pension for mothers of many children (pfa)

By contrast, all other taxable benefits are assumed to be taxed as normal income. On 1st January 2007 the 10% withholding tax on the above benefits was abolished (the 1.2% stamp duty still remains).

2.7 Interest income tax

- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

Interest on bank deposits is taxed at 10%.

- *EUROMOD notes*

Investment income reported in EU-SILC includes both interest and dividend income. However, since their disentanglement is not possible due to data constraints, investment income is treated as interest income.

2.8 Additional tax on rental income

- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

In addition to its taxation as personal or corporate income, rental income is also subject to a 1.5% tax, increased to 3% for rentals exceeding 300m² and for rentals belonging to corporations. The amount of additional tax may not exceed total liability in terms of personal or corporate income tax.



- *EUROMOD notes*

In EUROMOD, due to data constraints, we assume that none of the rentals exceeds 300m².

2.9 1% extraordinary contribution

- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

This is an emergence measure applied only for 2010. Individuals with 2009 net taxable incomes exceeding €100,000 are subject to 1% tax on all of that income (not just the part exceeding the threshold).

- *EUROMOD notes*

In EUROMOD, disposable income in 2010 (i.e. current year) is used as a proxy for 2009 net taxable income.

2.10 Pensioners' solidarity contribution

This is a special levy on main pensions, introduced in August 2010.

- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

Since 1st August 2010 main pensions exceeding €1,400 per month are subject to taxation as shown in Table 2.34. Note that the tax rates apply to the entire pension amount.

Table 2.34 Pensioners' solidarity contribution

Tax band	Pension bracket (€per month)		2010-11	2012
			Tax rate (%)	
1	0	1,400	0	0
2	1,401	1,700	3	3
3	1,701	2,000	4	6
4	2,001	2,300	5	7
5	2,301	2,600	6	9
6	2,601	2,900	7	10
7	2,901	3,200	8	12
8	3,201	3,500	9	13
9	3,501	...	10	14

- *EUROMOD notes*

Pensioners' solidarity contribution is by default switched off in 2010 as the policy only became effective after 30th June.

2.11 Additional pensioners' solidarity contribution

This is an additional levy on main pensions, introduced in August 2011.



- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

The contribution applies to pensioners below 60 (except from mothers of underage children) with main pensions exceeding €1,700 per month. The contributions' rates are shown in Table 2.33. Note that the tax rates apply to the entire pension amount.

Table 2.33 Pensioners' solidarity contribution

Tax band	Pension bracket (€per month)		Tax rate (%)
1	0	1,700	0
2	1,701	2,300	6
3	2,301	2,900	8
4	2,901	...	10

- *EUROMOD notes*

Additional pensioners' solidarity contribution is switched off in 2011 as the policy only became effective after 30th June.

2.12 Pensioners' solidarity contribution for supplementary pensions

This is a special levy on supplementary pensions, introduced in September 2011.

- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

Since 1st August 2011 supplementary pensions exceeding €300 per month are subject to taxation as shown in Table 2.34. Note that the tax rates apply to the entire pension amount.

Table 2.34 Pensioners' solidarity contribution

Tax band	Pension bracket (€per month)		Tax rate (%)
1	0	300	0
2	301	350	3
3	351	400	4
4	401	450	5
5	451	500	6
6	501	550	7
7	551	600	8
8	601	650	9
9	651	...	10

- *EUROMOD notes*

Pensioners' solidarity contribution is switched off in 2011 as the policy only became effective after 30th June.



2.13 Solidarity contribution

This is another emergency tax introduced in 2010, paid by individuals with net taxable incomes exceeding €12,000 per year.

- *Tax unit*

The unit of analysis is individual.

- *Tax schedule*

The contribution applies to individuals with net taxable incomes exceeding €12,000 per year. The contributions' rates are shown in Table 2.37. Net taxable income is not allowed to fall below €12,000. Moreover, if the contribution reduces the net taxable income below the lower threshold of tax bands 3-5, the contribution is calculated by using the tax rate that corresponds to the lower income threshold. Note that the tax rates apply to the entire amount of income (not just the part exceeding the threshold).

Table 2.37 Solidarity contribution (since 2010)

Tax band	Income bracket (€per year)		Tax rate (%)
1	0	12,000	0
2	12,001	20,000	1
3	20,001	50,000	2
4	50,001	100,000	3
5	100,001	...	4

2.14 Self-employed and liberal professions' contribution

This is a special levy on self-employed and liberal professions, introduced in 2010.

- *Tax unit*

The unit of analysis comprises individuals. The concept used for the eligibility condition was individuals' social insurance fund (lpmfc=3,6,8).

- *Tax schedule*

In 2010 the tax was set to €300 per year. Since 2011 it amounts to €500 for those self-employed / liberal professionals working more than five years in areas with population exceeding 200,000 inhabitants and €400 for those working more than five years in areas with population between 500 and 200,000 inhabitants. No tax is levied for self-employed working in areas with less than 500 inhabitants.

- *EUROMOD notes*

The population's condition was approximated by using the variable drgur (degree of urbanisation); the amount of €500 was levied on eligible persons living in densely populated areas (drgur=1) whereas the amount of 400 was levied on eligible persons living in intermediate populated areas (drgur=2).

2.15 Additional taxes on pensions

These are special levies on main and supplementary pensions, introduced in November 2011 and January 2012.



- **Tax unit**

The unit of analysis is individual.

- **Tax schedule**

Since 1st January 2012 all main old-age pensions exceeding €1,300 are subject to 12% taxation. Note that the tax rate applies to the pension amount exceeding €1,300 after the deduction of the above mentioned solidarity contribution. Pensions are not allowed to fall below €1,300.

Since 1st November 2011 all pensioners below 55 with main old-age pensions exceeding €1,000 are subject to 40% taxation. The tax rate applies to the pension amount exceeding €1,000 after all other solidarity contributions concerning main pensions have been deducted. (This contribution is simulated from 2012 onwards.)

Persons aged above 55 with main old-age pensions exceeding €1,200 are subject to 20% taxation. The tax rate applies to the pension amount exceeding €1,200 after all other solidarity contributions concerning main pensions have been deducted.

Since 1st January 2012 all supplementary pensions are subject to taxation as shown in Table 2.38. Note that the tax rates apply to the entire pension amount minus the solidarity contribution for supplementary pensions.

Table 2.38 Pensioners' solidarity contribution

Tax band	Pension bracket (€per month)		Tax rate (%)
1	0	250	10
2	250.01	300	15
3	301.01	...	20

2.16 Emergency property tax

- **Tax unit**

The unit of analysis is individual.

- **Tax schedule**

Since 2011, all persons who own commercial or residential property in Greece are subject to an emergency property tax. Its amount, varying from €3 to €16 per square meter, depends on the size and the cadastral value of the building. A specific factor varying from 1 to 1.25 according to the age of the building is also applicable (property tax = tax rate * m² * age factor).

A *reduced rate* of €0.50 per square meter applies to vulnerable population categories (i.e. people receiving large family benefit or 3rd child benefit with taxable income less than €30,000 per year or persons suffering from disability over 67%). Long term unemployed or recipients of unemployment benefit for more than 6 months, with family income not exceeding €12,000 per year (plus €4,000 for every dependent child) are exempted from the tax.

- **EUROMOD notes**

In EUROMOD the age factor was set to 1 for all of the tax payers due to lack of information about the age of buildings. The tax rates per square meter used were the average rates for urban and rural/ semi-rural areas according to tax data provided by the Greek authorities (i.e. €5.3 per square meter for those residing in urban areas and €3.7 per square meter for those residing in rural/ semi-rural areas).



3. DATA

3.1 General description

The Greek database is drawn from the Community Statistics on Income and Living Conditions (EU-SILC), both the national (PDB) and the European (UDB) version. EU-SILC is a rotating panel that provides quality, timely cross-sectional information on household incomes and social exclusion.

Table 3.1 EUROMOD database description

EUROMOD database	EL_2010_a1
Original name	SILC_PDB_2010, SILC_UDB_c10_v10-1(GR)
Provider	EL.STAT., EUROSTAT
Year of collection	2010
Period of collection	May – June
Income reference period	1.01.2009 - 31.12.2009
Sampling	Stratified multi-stage sampling
Unit of assessment	Households
Coverage	Private household
Sample size	Indiv: 17,611 HH: 7,005
Household response rate (total sample)	83.68%

3.2 Sample quality and weights

3.2.1 Non-response

Commission Regulation 28/2004 defines indicators aimed at measuring unit non-response in EU-SILC final quality reports.

For Greece, the overall personal interview non-response rate and the overall household interview non-response rate were 17.42% and 16.82% respectively. The household response rates (Rh) for the whole sample differ considerably among countries: from Luxemburg and Norway (both around 57%) to Romania and Slovakia (both above 94%).⁸

3.2.2 Weights

The original SILC sample for Greece consisted of 7,005 households and 17,611 individuals. The weights provided by SILC are household weights aiming to correct for selective non-response and panel attrition. In the sample no households with zero incomes from all sources were found. Hence no re-weighting was needed. Sample statistics and output estimates were projected to a reference population of 10,928,114 individuals.

Table 3.2 presents some basic descriptive statistics for the grossing-up weight (*dwt*) of the final sample used in EUROMOD.

⁸ Source: 2010 Comparative EU Intermediate Quality Report, Version 3, October 2012.



Table 3.2 Descriptive Statistics of the Grossing-up weight

Number	17,555
Mean	622
Median	244
Maximum	7,716
Minimum	7
Max/Min	1,102
Decile 1 (mean)	567
Decile 9 (mean)	716
Dec 9 / Dec1	1.26

3.2.3 Item non-response and under-reporting

Income and household composition data are collected by interviews with all household members aged 16 or over. The SILC response rules require detailed information on all income components to be provided by direct reporting, but proxy answers are allowed.

In the Greek sample 107 individuals reported zero income from all sources. To these individuals income was imputed using SILC's non-response inflation factor (*hy025*). For individuals younger than 65 the adjustment income was assigned according to the main income source by age, whereas for individuals over 65 the adjustment income was imputed as old age pension income.

3.3 Imputations, data adjustments and assumptions

This section summarises the most important adjustments performed to make data from both sources (national and European SILC) suitable for the purposes of EUROMOD.

3.3.1 Time period

In the SILC user database, the income reference period is a 12-month period. Information on earnings refers to the last tax year (1st January 2000 – 31st December 2009). Similarly, information about pensions and benefits refers to the calendar year before the interview. Self-employment income is based on this reference period too.

EU-SILC's User Database Description clarifies that the interval between the end of the income reference period and the time of the interview for the respondent concerned shall be limited to 8 months as far as possible.

All monetary amounts in the SILC are expressed in annual terms. These are converted into monthly terms (dividing by 12) for the EUROMOD database.

3.3.2 Dropped observations

People with year of birth equal to 2010 (56 cases) were excluded from EUROMOD's database, as they were not born in SILC's income reference period.

3.3.3 Gross incomes

The income information available in the survey used to be net of income tax and social insurance contributions. Since 2007 gross incomes are also provided. However, the latter were



not used; in order to obtain gross figures, a procedure has been developed *ad hoc*, taking into account legislation on income tax and social insurance contributions in 2009.

In common with most tax-benefit models, EUROMOD usually works under the default assumption of full compliance (i.e. that taxes are fully adhered to). However, under-reporting of incomes for the purposes of tax evasion is known to be rife in Greece. As a consequence, ignoring this behaviour would seriously undermine the validity of our results.

Hence, in trying to account for tax evasion we use the assumption that individuals reveal their real total net income (say N) to survey interviewers. Let G denote individuals' real gross income (which includes the part of income which is not reported to the tax authorities), and r the rates of income under-reporting. Further, let $T(G)$ denote the personal income tax function for incomes earned in 2009. In the presence of tax evasion, it follows that:

$$G = N + T((1-r)* G)$$

The stylised rates of income under-reporting applied here, drawn from ongoing research (Matsaganis et al. 2012), were as follows:

$r_w = 5\%$ for employment income,

$r_{se} = 35\%$ for self-employment income

$r_f = 80\%$ for farming incomes

By solving this recursive problem iteratively and for each income source separately, we obtain the values of real gross income, G . The rates of under-reporting are then used to separate the reported income ($yemre/ysere$) from the unreported part of gross income ($yemnr/ysenr$). EUROMOD treats the former as subject to income tax and social insurance contributions (and as used in resource assessment for means-tested benefits), while it adds the latter to individuals' disposable income. However, the input dataset also includes an alternative set of gross earnings variables (yem/yse) which is derived assuming full compliance.⁹

3.3.4 Social contributions

As explained earlier, a large number of social insurance funds exist in Greece. The national SILC dataset contains information on the social insurance affiliation to all of them. For this reason, we constructed EUROMOD variable *lpmfc* where contributors were allocated to the largest representative fund of their category. The categories created and the funds selected to represent them are described in Table 2.2. In cases where people stated they were insured in two different funds, the allocation rules used are shown in Table 3.3:

Table 3.3 Allocation of persons insured in two social insurance funds

1 st fund	2 nd fund	Allocated fund
Liberal professions	Own account workers	Own account workers
Liberal professions	Civil servants	Liberal professions
Private sector workers	Own account workers	Own account workers
Private sector workers	Farmers	Private sector workers
Private sector workers	Other self-employed workers	Other self-employed workers

⁹ The same procedure was also applied to the 2008 EUROMOD dataset. The rates of income under-reporting, drawn from Matsaganis & Flevotomou (2010), were 1% for employment income, 33% for self-employment income and 45% for farming income.



Private sector workers	Banking employees	Private sector workers
Other self-employed workers	Farmers	Other self-employed workers

Several other issues also arise:

- (a) contributors must be allocated to the “old” or to the “new” regime,
- (b) employees must be allocated to “standard” or “hazardous” occupations,
- (c) *OΓA*, *TEBE* and *TAE* must be allocated to insurance classes.

3.3.4.1 Identifying contributors in the “old” and “new” regimes

In order to distinguish the contributors to the “old” regime (i.e. those first employed before 1st January 1993) from contributors to the “new” regime (i.e. those first employed after 1st January 1993), the difference in years between a person’s age at the time of the interview and the age he/she began his/her first regular job or business was calculated (*int_lpm*). In view of the above, contributors were allocated to the “old” or to the “new” regime as shown in Table 3.4. Note that this process was only applied to people with missing data information.

Table 3.4 Contributors in the “old” and the “new” regime (*lpm*)

Contributors first employed	<i>int_lpm</i>	<i>lpm</i>
Before 1 st January 1993 (“old” regime)	>17	0
After 1 st January 1993 (“new” regime)	<=17	1

3.3.4.2 Identifying contributors in hazardous occupations (*lochz*)

In 2008, 32.3% of all *IKA* contributors and a lower proportion of other employees worked in occupations officially designated as “hazardous”. Workers in “hazardous” occupations have the right to retire on a full pension up to five years before others (i.e. those in “standard” occupations). On the other hand, as explained in section 2.5.1, workers in “hazardous” occupations (and their employers) pay social contributions at a higher rate. It is for this reason that identifying those contributors is important for the purposes of modelling the tax-benefit system of Greece.

The following conditions were specified to identify workers in “hazardous” occupations:

- person is an active contributor, i.e. “directly insured”,
- social insurance fund is “*IKA*” (*lpmfc=1*) or “banking employees” (*lpmfc=5*) or “public enterprise workers” (*lpmfc=4*),
- labour economic status is “employee” (*les=3*) or “unemployed” (*les=5*),
- occupation is “technician or associate professional” (*loc=3*) or “craft or trades worker” (*loc=7*) or “plant or machine operator” (*loc=8*), or
- occupation is “skilled agricultural” (*loc=6*) or “elementary occupation” (*loc=9*), except when industry is “agriculture” (*lin=1* was excluded).

Note that this process was only applied to people with missing data information.

3.3.4.3 Allocating self-employed contributors to insurance classes



Since reference earnings are not known in advance in the case of self-employment, social contributions are set at fixed amounts per “insurance class”, according to a schedule revised annually. This is the case with own-account workers (*TEBE*), other self-employed workers (*TAE*) and farmers (*OΓA*).

Therefore, before social insurance contributions could be modelled, self-employment earnings were used to allocate contributors to insurance classes. To mimic the quasi-proportional effect intended, the higher one’s earnings the higher their insurance class. Income brackets were chosen so that the resulting distribution of contributors between insurance classes matched the actual one. Note that this process was only applicable to people with missing data information. The 2005-12 distributions for own own-account workers, other self-employed workers and farmers are presented in the Annex.

3.3.5 Imputation of new unemployed

In order to account for labour market changes, there are also additional variables imputed marking new unemployed and employed in 2008-2011 (with separate dummy variables for each year). 2011 employment statuses are also used for 2012. This has been done on the basis of Eurostat LFS information showing relative increase in employment rate by age, gender and education since 2007 and the year in question. The new unemployed (employed) in EUROMOD dataset have been chosen randomly within a corresponding cell of employed (unemployed) people aged 15-74 so that the same relative change in employment rate is reached. An employed person is defined as the one with either employment or self-employment income, ignoring those who also reported having an unemployment spell in the income reference period or in receipt of unemployment benefit as well as students (unless had been also working full year). All related variable adjustments for new unemployed are done in EUROMOD (in the ‘policy’ called *empl_el*).

3.3.6 Other data issues

For the construction of EUROMOD variables *bmact* (contributory maternity benefits), *bho* (housing benefits) and *bdi* (non-contributory disability benefits) both the national and the European version of SILC were used in order to aggregate all relevant variables in the most accurate way. Hence, the definition of the above variables is as follows:

bmact = *maternity allowance* + *birth grant* + *parental leave benefit* (PDB variables included in *hy050n*)

bho = *housing allowances (hy070n)* + *housing benefit for students in tertiary education* (PDB variable included in *hy050n*)

bdi = *benefit for persons with special needs* + *care allowance for incapacitated persons* + *care allowance for incapacitated children* + *nutrition allowance for people suffering from kidney’s disease* + *other disability benefits/ allowances* + *disabled child care allowance* (PDB variables included in *hy050n* and *py130n*)

Moreover, negative self-employment incomes have been set to zero (62 cases). Note that this adjustment is applied in the model and not in the input dataset and thus can be easily omitted from model calculations by switching off the corresponding function in the policy sheet (i.e. policy *yse_el*).



3.4 Updating

The dataset used for Greece is SILC 2010. As information on earnings, pensions and benefits refer to the past tax year (2009) no uprating was required for 2009 policy simulations. 2009-12 uprating factors are presented in the Table below.

Table 3.5 EUROMOD uprating factors

	Variable name	2009	2010	2011	2012
Employment income					
Dependent employment income	yem				
Public sector employees		1.000	0.915	0.87	0.806
Private sector employees outside banking		1.000	0.971	0.954	0.866
Banking employees		1.000	0.982	0.983	0.909
Workers in public enterprises		1.000	0.945	0.87	0.788
Self-employed income	yse				
Farmers		1.000	0.965	0.971	0.971
Own account workers/ other self-employed		1.000	0.952	0.923	0.842
Liberal professions		1.000	0.952	0.923	0.842
Investment - property income					
Investment income	yyi	1.000	1.069	1.165	1.233
Property income – rent	yprrt	1.000	1.024	1.032	1.018
Other income					
Private transfers	ypt	1.000	0.952	0.923	0.842
Non-cash income	kfb	1.000	0.952	0.923	0.842
Income received by people aged under 16	yot	1.000	0.952	0.923	0.842
Retirement pensions/ benefits					
Main old age pension	poa00	1.000	1.000	1.000	1.000
Supplementary old age pension	poacm	1.000	1.000	1.000	1.000
Other minor pensions	poaot	1.000	1.000	1.000	1.000
Survivors pension	psuwd	1.000	1.000	1.000	1.000
Orphans pension	psuor	1.000	1.000	1.000	1.000
Pensioners' social solidarity benefit	boact	1.000	1.000	1.000	1.000
Social pension	boanc	1.000	1.091	1.091	1.091
Private pension	ypp	1.000	1.047	1.08	1.086
Unemployment benefits					
Unemployment insurance	bunct	1.000	1.000	1.000	0.973
Unemployment assistance for older workers	bunnc	1.000	1.000	1.000	1.000
Minor unemployment benefits	bunot	1.000	1.000	1.000	0.973
Family benefits					
3rd child benefit	bchlg	1.000	1.026	1.014	1.014
Large family benefit	bfaig	1.000	1.026	1.014	1.014
Lump sum €2,000 birth grant	bchba	1.000	1.026	1.014	1.014
Lifetime pension for mothers of many-children	pfa	1.000	1.026	1.014	1.014
Civil servants family benefit	bfacs	1.000	1.000	1.000	1.000
Income support to families with children in compulsory education	bched	1.000	1.000	1.000	1.000
Minor family benefits	bfaot	1.000	1.000	1.000	1.000
Sickness – maternity benefits					



	Variable name	2009	2010	2011	2012
Contributory maternity benefits (pregnancy-confinement benefit, birth grant, parental leave grant)	bmact	1.000	0.952	0.923	0.842
Health benefits	bhl	1.000	0.952	0.923	0.842
Disability pensions	pdi	1.000	1.000	1.000	1.000
Disability benefits	bdi	1.000	1.082	1.168	1.168
Housing benefits	bho	1.000	1.000	1.000	1.000
Scholarships and grants	bed	1.000	1.000	1.000	1.000
Minor social assistance benefits	bsaot	1.000	1.000	1.000	1.000
Large property tax	tpr	1.000	1.000	1.000	1.000
Assets					
Loan value	amolv	1.000	1.047	1.08	1.086
Financial capital	afc	1.000	1.047	1.08	1.086
Expenditure items					
Rent paid	xhert	1.000	1.024	1.032	1.018
Rent of children studying in towns other than their hometowns	xhcnhrt	1.000	1.024	1.032	1.018
Education expenses	xed	1.000	1.047	1.08	1.086
Housing cost	xhc	1.000	1.069	1.165	1.233
Interest on mortgage payment	xhcmomi	1.000	1.047	1.08	1.086
Other housing costs	xhcot	1.000	1.069	1.165	1.233
Medical expenses	xhl	1.000	1.047	1.08	1.086
Expenses for elderly care	xhl01	1.000	1.047	1.08	1.086
Expenses for setting up new heating systems	xht	1.000	1.047	1.08	1.086
Alimony expenditure	xmpam	1.000	1.017	1.033	1.051
Other maintenance payments	xmpot	1.000	1.017	1.033	1.051
Payment of lawyers	xog	1.000	1.047	1.08	1.086
Expenditure on private pensions	xpp	1.000	1.047	1.08	1.086
Nominal GDP deflator		1.000	1.017	1.033	1.051
Harmonised consumer price index		1.000	1.047	1.08	1.086

Sources: EL.STAT., Bank of Greece, various benefit-providing agencies.



4. VALIDATION

4.1 Aggregate Validation

Table 4.1 Components of disposable income

	EUROMOD 2010	EU-SILC 2010
	ils_dispy	HY020
Employee cash or near cash income	yem	PY010_N
Company car	-	PY021_G
Cash benefits or losses from self-employment	yse	PY050_N
Pension from individual private plans	ypp	-
<i>Unemployment benefits</i>	<i>bunct_s+bunnc_s+bunot</i>	<i>PY090_N</i>
<i>Old-age benefits</i>	<i>poa00+poacm+poaot+pdi+pxp_s+boact_s+boanc_s</i>	<i>PY100_N</i>
<i>Survivor' benefits</i>	<i>psuor+psuwd</i>	<i>PY110_N</i>
Sickness benefits	bhl	PY120_N
<i>Disability benefits</i>	<i>bdi</i>	<i>PY130_N</i>
Education-related allowances	bed+bched_s	PY140_N
Income from rental of a property or land	yprrt	HY040_N
<i>Family/children related allowances</i>	<i>bfalg_s+bfacs+bfao+bmact+pfa+bchba_s+bchlg_s</i>	<i>HY050_N</i>
Social exclusion not elsewhere classified	bsaot	HY060_N
<i>Housing allowances</i>	<i>bho</i>	<i>HY070_N</i>
Regular inter-household cash transfer received	ypt	HY080_N
Interests, dividends, etc.	iyi	HY090_N
Income received by people aged under 16	yot	HY110_N
Regular taxes on wealth (-)	tpr	HY120_N
<i>Regular inter-household cash transfer paid (-)</i>	<i>xmpot+xmpal</i>	<i>HY130_N</i>
<i>Taxes on income and SIC (-)</i>	<i>tin00_s+tinktdt_s+tinwh_s+tinrt_s+txcxt_s+txcpe_s+txc00_s+txcse_s+ils_sicee+ils_sicse</i>	<i>HY140_N</i>

Notes: The definition of variables in italics differs from EUROMOD to EU-SILC (also see section 3.4.5).



4.1.1 Validation of incomes inputted into the simulation

In Table 4.2 the number of employed and unemployed people in EUROMOD is validated with respect to the official statistics. EUROMOD findings seem to estimate correctly the number of employed people in 2009 and to overestimate it by 8% in 2011. With respect to the number of unemployed persons, in 2009 EUROMOD's underlying dataset overestimates it by 28% on average. The tremendous rise in unemployment since then has resulted in EUROMOD underestimating the number of unemployed in 2010 and 2011 by 4% and 31% respectively.

Table 4.2 Number of employed & unemployed

	Input dataset (I)	External Source (II)				Ratio (I/II)			
	2009	2009	2010	2011	2012	2009	2010	2011	2012
Nr of employed	4,423.40	4,508.66	4,388.65	4,090.70	n/a	0.98	1.01	1.08	n/a
Nr of unemployed	603.47	471.12	628.70	877.00	n/a	1.28	0.96	0.69	n/a

Notes: EUROMOD number of employed and unemployed computed based on months in employment/unemployment - numbers computed as averages of monthly data over the year.

Source: EUROSTAT (LFS adjusted series).

In Tables 4.3 and 4.4 selected market incomes are validated with respect to people in receipt and aggregate yearly amounts. EUROMOD findings seem to underestimate gross employment earnings by 9% in 2009, 7% in 2010 and to be in full accordance with the official statistics in 2011. There are no official data available on the number of recipients of market incomes.

Table 4.3 Market Income-Number of recipients (in thousands)

	Input database (I)	External source (II)	Ratio (I/III)
	2009	2009-2012	2009
Original income			
Employment income	3,360.05	n/a	n/a
Self-employment income	1,695.43	n/a	n/a
Private pension income	4.63	n/a	n/a
Severance payments (<i>private transfers</i>)	357.18	n/a	n/a
In-kind income			
Fringe benefits	370.57	n/a	n/a



Table 4.4 Market Income-Aggregate amounts (in million €)

	Input	External	Ratio	Uprated input (I)			External source (II)			Ratio(I/II)		
	(I)	source (II)	(I/II)	2010	2011	2012	2010	2011	2012	2010	2011	2012
Original income	2009	2009	2009	2010	2011	2012	2010	2011	2012	2010	2011	2012
Employment income – reported	58,077	66,859	0.91	55,426	53,900	49,285	62,377	56,495	n/a	0.93	1.00	n/a
Employment income - non reported	2,549			2,434	2,367	2,160						
Self-employment income - reported	16,665	n/a	n/a	15,881	15,443	14,196	n/a	n/a	n/a	n/a	n/a	n/a
Self-employment income - non reported	10,165	n/a	n/a	9,722	9,549	9,008	n/a	n/a	n/a	n/a	n/a	n/a
Investment income	617	n/a	n/a	659	718	760	n/a	n/a	n/a	n/a	n/a	n/a
Property Income	4,921	n/a	n/a	5,040	5,079	5,010	n/a	n/a	n/a	n/a	n/a	n/a
Private pension income	11	n/a	n/a	11	12	12	n/a	n/a	n/a	n/a	n/a	n/a
Severance payments	1,983	n/a	n/a	1,887	1,830	1,669	n/a	n/a	n/a	n/a	n/a	n/a
In-kind income												
Fringe benefits	357	n/a	n/a	340	330	300	n/a	n/a	n/a	n/a	n/a	n/a
Imputed housing income	15,810	n/a	n/a	16,553	17,074	17,169	n/a	n/a	n/a	n/a	n/a	n/a

Notes: Eurostat gross wages and salaries also include remuneration in kind.

Sources: Eurostat, Gross wages and salaries.

The number of recipients and total expenditure of non-simulated benefits are shown in Tables 4.5-4.6. Due to a severe lack of official external statistics, the validation was only made possible in the case of lifetime pension for mothers of many children and disability benefits. The former benefit seems to be reported with a very satisfactory degree of accuracy in EU-SILC whereas the latter are heavily underreported.



Table 4.5 Non-simulated taxes and benefits-Number of recipients/payers (in thousands)

	Input	External Source (III)				Ratio (I/III)				
	database (I)	2009	2009	2010	2011	2012	2009	2010	2011	2012
Pensions										
Main old age pension	1,933.13	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplementary old age pension	422.20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other old age pension	113.55	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Survivors pension	375.21									
Orphans pension	24.86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Benefits										
<i>Family benefits</i>										
Lifetime pension for mothers of many children	173.31	174.37	170.72	165.65	165.08	0.99	1.02	1.05	1.05	
Civil servants family benefit	20.87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other family benefits	110.70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Unemployment benefits</i>										
Other unemployment benefits	79.34	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Sickness – maternity benefits</i>										
Maternity benefit	51.48	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Health benefit	19.64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Disability pensions – benefits</i>										
Disability pension	113.89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Disability benefits	63.83	209.21	216.48	212.25	186.40	0.31	0.29	0.30	0.34	
Housing benefits	87.76	173,690	n/a	n/a	n/a		n/a	n/a	n/a	
Educational benefits	17.17	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Minor social assistance benefits	1,025.39	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes: 1. Other retirement pensions include early retirement pensions due to resignation, national resistance pensions, deputy/ mayor pensions etc.

2. Other family benefits include unprotected child benefit, marriage grant, OAEΔ family allowance etc.

3. Health benefits include pay sick leave, benefit for working accidents, assistance of movement of sick persons, benefit for spa therapy, airing etc.

4. EUROMOD estimates include only disability pension recipients below 65, while administrative data include all disability pension recipients.

5. Minor social assistance benefits include emergency social help, special allowance for released prisoners/ repatriated Greeks/ drug addicts/ alcoholics, benefit for households in less favoured areas etc.

Source: Own elaboration of data derived from various administrative sources.



Table 4.6 Non-simulated taxes and benefits-Aggregate amounts (in million €)

	Input	External	Ratio	Uprated input (I)			External Source (II)			Ratio (I/II)		
	database(I)	Source(II)	(I/II)	2010	2011	2012	2010	2011	2012	2010	2011	2012
Pensions												
Main old age pension	21,384	n/a	n/a	18,896	18,896	18,896	n/a	n/a	n/a	n/a	n/a	n/a
Supplementary old age pension	1,848	n/a	n/a	1,848	1,848	1,848	n/a	n/a	n/a	n/a	n/a	n/a
Other old age pension	656	n/a	n/a	593	593	593	n/a	n/a	n/a	n/a	n/a	n/a
Survivors pension	2,955	n/a	n/a	2,557	2,557	2,557	n/a	n/a	n/a	n/a	n/a	n/a
Orphans pension	219			188	188	188						
Benefits												
<i>Family benefits</i>												
Lifetime pension for mothers of many children	211	217	0.97	216	214	214	217	207	203	1.00	1.03	1.05
Civil servants family benefit	16	n/a	n/a	16	16	16	n/a	n/a	n/a	n/a	n/a	n/a
Other family benefits	35	n/a	n/a	35	35	35	n/a	n/a	n/a	n/a	n/a	n/a
<i>Unemployment benefits</i>												
Other unemployment benefits	195	n/a	n/a	195	195	190	n/a	n/a	n/a	n/a	n/a	n/a
<i>Sickness – maternity benefits</i>												
Maternity benefit	96	183	0.52	91	89	81	134	107	n/a	0.68	0.83	n/a
Health benefit	52	394	0.13	50	48	44	n/a	n/a	n/a	n/a	n/a	n/a
<i>Disability pensions – benefits</i>												
Disability pension	901	n/a	n/a	901	901	901	n/a	n/a	n/a	n/a	n/a	n/a
Disability benefits	271	779	0.35	293	317	317	863	917	814	0.31	0.30	0.33
Housing benefits	115	n/a	n/a	13	115	115	n/a	n/a	n/a	n/a	n/a	n/a
Educational benefits	51	n/a	n/a	51	51	51	n/a	n/a	n/a	n/a	n/a	n/a
Minor social assistance benefits	404	n/a	n/a	404	404	404	n/a	n/a	n/a	n/a	n/a	n/a

Notes: 1. Other retirement pensions include early retirement pensions due to resignation, national resistance pensions, deputy/ mayor pensions etc.

2. Other family benefits include unprotected child benefit, marriage grant, OAEΔ family allowance etc.

3. Health benefits include pay sick leave, benefit for working accidents, assistance of movement of sick persons, benefit for spa therapy, airing etc.

4. EUROMOD estimates include only disability pension recipients below 65, while administrative data include all disability pension recipients.

5. Minor social assistance benefits include emergency social help, special allowance for released prisoners/ repatriated Greeks/ drug addicts/ alcoholics, benefit for households in less favoured areas etc.

Sources: Own elaboration of data derived from various administrative sources.



4.1.2 Validation of outputted (simulated) incomes

In Tables 4.7 and 4.8 simulated benefits, taxes and social insurance contributions are validated separately with respect to recipient and payer numbers, followed by a comparison of figures on aggregate expenditure. Expenditure estimates are generally in line with the estimates of recipient numbers and are thus not commented. Due to a severe lack of official external statistics, the validation was only made possible in the case of a limited number of benefits and taxes.

Taking into account the 2009 official data on the number of pensioners' social solidarity benefit recipients (332,532 persons in 2009), EUROMOD seems to underestimate the number of recipients by 11%. This benefit is highly underestimated in the original EU-SILC dataset as well. However, the picture changes drastically since 2011. EUROMOD overestimates the benefit recipients by a significant margin (72% in 2011 and 66% in 2012).

The number of social pension recipients is estimated by EUROMOD with a satisfactory degree of accuracy (especially in 2011-2012). On the other hand, the benefit is severely underestimated in the EU-SILC dataset. It is very likely that this discrepancy is due to the fact that many social pension recipients are shown as *ΟΓΑ* basic pension recipients in the original dataset.

Generally speaking, over/underestimation of income-tested benefits may be partly due to the way the income test for access to benefits is interpreted in the model vs. administrative practice. In real life, assessment of applications to income-tested benefits is based on tax returns from the year before the application for incomes earned two years before the application. Since information on past incomes is not incorporated in EUROMOD, the income conditions are treated as if they referred to incomes earned in the application year.

Regarding family benefits, EUROMOD underestimates the recipients of 3rd child benefit, large family benefit and lump sum €2,000 birth grant (the latter only for 2009-2010). Since all of them are universal benefits, their underestimation has to be attributed to the dataset's misrepresentation of such benefit-deserving households. The EU-SILC dataset also underestimates the recipients of unemployment assistance for older workers.

Moreover, EUROMOD seems to underestimate the number of recipients of unemployment insurance by 16%-20%. Unemployment insurance benefit has complex eligibility conditions which can be only partly simulated with EUROMOD and hence the simulations have been partly tied to the observed receipt which itself is underreported.

As far as simulated taxes are concerned, the (adjusted for tax evasion) model overestimates the number of personal income tax payers in 2009 by 16% and underestimates the amount of tax receipts collected by 13%. It also underestimates the emergency property tax receipts of 2011 by 39%. The latter can be attributed to the lack of information about the age of buildings and the (average) tax rates per square meter that were applied in the simulation.



Table 4.7 Simulated taxes and benefits-Number of payers and recipients (in thousands)

	EUROMOD (I)				Original data (II)	Ratio (I/II)		External source (III)				Ratio (I/III)			
	2009	2010	2011	2012	2009	2009	2009	2010	2011	2012	2009	2010	2011	2012	
Benefits															
<i>Retirement pensions - benefits</i>															
Social pension	52.31	60.55	60.55	60.55	6.43	8.14	69.98	67.96	64.78	65.00	0.75	0.89	0.93	0.93	
Pensioners' social solidarity benefit	294.79	374.87	521.46	524.26	185.93	1.59	332.5	n/a	302.62	315.80	0.89	n/a	1.72	1.66	
Compensation for the abolishment of 13 th and 14 th pension	-	1,336.21	1,336.21	1,336.21	n/a	n/a	-	n/a	n/a	n/a	-	n/a	n/a	n/a	
Lump-sum benefit to civil servants	258.13	0	0	0	n/a	n/a	n/a	-	-	-	n/a	-	-	-	
Lump-sum benefit to low paid pensioners	0	0	99.17	0	n/a	n/a	-	n/a	-	-	-	n/a	-	-	
<i>Family benefits</i>															
Large family benefit	119.06	119.06	119.06	119.06	62.85	1.89	259.13	264.20	255.21	250.68	0.46	0.45	0.47	0.47	
3 rd child benefit	30.96	30.96	30.96	30.96	40.50	0.76	58.79	61.73	55.64	55.15	0.53	0.50	0.56	0.56	
Income support to families with children in compulsory education	28.40	30.40	30.40	31.09	6.46	4.40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lump sum €2,000 birth grant	6.11	6.11	6.11	6.11	7.77	0.79	18.44	16.42	6.20	5.53	0.33	0.37	0.99	1.10	
<i>Unemployment benefits</i>															
Unemployment insurance	219.13	219.13	219.13	219.13	219.13	1.00	n/a	259.84	274.53	n/a	n/a	0.84	0.80	n/a	
Unemployment assistance for older workers	0.34	0.34	0.34	0.34	0.34	1.00	0.94	1.85	n/a	n/a	0.36	0.18	n/a	n/a	
<i>Other benefits</i>															
Lump-sum heating benefit	1,439.06	-	-	-	n/a	n/a	n/a	-	-	-	n/a	-	-	-	
Taxes															
Personal income tax	2,804.08	2,488.04	4,697.71	4,479.08	n/a	n/a	2,412.96	n/a	n/a	n/a	1.16	n/a	n/a	n/a	
Withholding tax on benefit	288.26	288.26	288.26	288.26	n/a	n/a	510.73	513.07	n/a	n/a	0.56	0.56	n/a	n/a	
Interest income tax	555.06	555.06	555.06	555.06	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Additional tax on rental income	638.37	596.66	848.90	843.09	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
1% extraordinary contribution	15.69	-	-	-	n/a	n/a	n/a	-	-	-	n/a	-	-	-	
Solidarity contribution	-	3,317.42	3,027.47	2,693.67	n/a	n/a	-	n/a	n/a	n/a	-	n/a	n/a	n/a	
Self-employed and liberal professions' contribution	-	805.55	805.55	805.55	-	-	-	n/a	n/a	n/a	-	n/a	n/a	n/a	
Additional taxes on pensions	-	-	-	638.35	-	-	-	-	-	n/a	-	-	-	n/a	



	EUROMOD (I)				Original data (II)	Ratio (I/II)	External source (III)				Ratio (I/III)			
	2009	2010	2011	2012	2009	2009	2009	2010	2011	2012	2009	2010	2011	2012
Pensioners' solidarity contributions	-	-	276.12	407.55	-	-	-	-	n/a	n/a	-	-	n/a	n/a
Emergency property tax	-	-	4,282.14	4,282.14	-	-	-	-	n/a	n/a	-	-	n/a	n/a
Social insurance contributions														
Employee contributions	5,408.88	5,412.88	5,412.88	5,412.88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Self-employed contributions	1,483.39	1,483.39	1,483.39	1,483.39	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Employer contributions	2,238.12	2,238.12	2,238.12	2,238.12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pensioner contributions	2,433.92	2,437.93	2,437.93	2,437.93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes: 1. The number of recipients of pensioners' social solidarity benefit rises significantly since 2011 due to the fact that an extra category of recipients was added that year.

2. Personal income tax payers: persons paying non-zero income tax.

3. Since 2009 administrative data on private sector workers, banking employees and public enterprise workers are reported together.

4. The number of pensioners' social insurance contributors includes both main and supplementary pension recipients.

Sources: Own elaboration of data derived from various administrative sources.

Table 4.8 Simulated taxes and benefits- Aggregate amounts (in million €)

	EUROMOD (I)				Original data (II)	Ratio (I/II)	External source (III)				Ratio (I/III)			
	2009	2010	2011	2012	2009	2009	2009	2010	2011	2012	2009	2010	2011	2012
Benefits														
Retirement pensions - benefits														
Social pension	242	306	306	306	31	7.81	361	380	358	350	0.67	0.81	0.85	0.87
Pensioners' social solidarity benefit	883	917	1,057	1,065	527	1.68	1,034	914	952	753	0.85	1.00	1.11	1.41
Compensation for the abolishment of 13 th and 14 th pension	-	1,045	1,045	1,045	-	-	-	n/a	n/a	n/a	-	n/a	n/a	n/a
Lump-sum benefit to civil servants	102.65	-	-	-	n/a	n/a	n/a	-	-	-	n/a	-	-	-
Lump-sum benefit to low paid pensioners	-	-	24	-	-	-	-	-	n/a	-	-	-	n/a	-
Family benefits														
Large family benefit	178	182	180	180	127	1.40	399	395	326	311	0.45	0.46	0.55	0.58
3 rd child benefit	65	66	66	66	79	0.82	133	141	129	120	0.49	0.47	0.51	0.55



	EUROMOD (I)				Original data (II)	Ratio (I/II)	External source (III)				Ratio (I/III)				
	2009	2010	2011	2012	2009	2009	2009	2010	2011	2012	2009	2010	2011	2012	
Income support to families with children in compulsory education	12	13	13	13	1	12.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lump sum €2,000 birth grant	12	12	12	12	16	0.75	37	33	12	30	0.32	0.36	1.00	0.40	
Unemployment benefits															
Unemployment insurance	656	656	656	520	605	1.08	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Unemployment assistance for older workers	1	1	1	1	1	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Other benefits															
Lump-sum heating benefit	216	-	-	-	n/a	n/a	n/a	-	-	-	n/a	-	-	-	
Taxes															
Personal income tax	7,843	6,246	9,143	7,963	n/a	n/a	9,015	n/a	n/a	n/a	0.87	n/a	n/a	n/a	
Withholding tax on benefit	5	6	6	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Interest income tax	62	66	72	76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Additional tax on rental income	56	54	67	65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
1% extraordinary contribution	23	-	-	-	n/a	n/a	n/a	-	-	-	n/a	-	-	-	
Solidarity contribution	-	1,138	960	791	-	-	-	n/a	n/a	n/a	-	n/a	n/a	n/a	
Self-employed and liberal professions' contribution	-	242	372	372	-	-	-	n/a	n/a	n/a	-	n/a	n/a	n/a	
Additional taxes on pensions	-	-	-	1,057	-	-	-	-	-	n/a	-	-	-	n/a	
Pensioners' solidarity contributions	-	-	327	624	-	-	-	-	n/a	n/a	-	-	n/a	n/a	
Emergency property tax	-	-	1,161	1,159	-	-	-	-	1,900	n/a	-	-	0.61	n/a	
Social insurance contributions															
Employee contributions	10,720	10,171	10,191	9,588	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Self-employed contributions	3,103	3,103	3,162	3,265	n/a	n/a	3,580	n/a	n/a	n/a	0.87	n/a	n/a	n/a	
Employer contributions	9,518	9,266	9,116	8,477	n/a	n/a	10,040	n/a	n/a	n/a	0.95	n/a	n/a	n/a	
Pensioner contributions	1,164	1,048	1,054	1,054	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Sources: Own elaboration of data derived from various administrative sources.



4.2 Income distribution

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

4.2.1 Income inequality

As a whole, EUROMOD estimates on income inequality seem to be in line with the existing external source estimates.

Table 4.9 Income distribution

Indicator	EUROMOD (I)				External Source (II)				Ratio (I/II)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
<i>income deciles</i>												
1	2.86	2.87	2.88	2.82	2.06	n/a	n/a	n/a	1.39	n/a	n/a	n/a
2	4.65	4.69	4.81	4.88	4.60	n/a	n/a	n/a	1.01	n/a	n/a	n/a
3	5.86	5.89	6.04	6.06	5.70	n/a	n/a	n/a	1.03	n/a	n/a	n/a
4	6.97	6.99	7.02	7.21	6.90	n/a	n/a	n/a	1.01	n/a	n/a	n/a
5	7.93	8.04	8.17	8.18	7.90	n/a	n/a	n/a	1.00	n/a	n/a	n/a
6	9.22	9.27	9.29	9.32	9.30	n/a	n/a	n/a	0.99	n/a	n/a	n/a
7	10.58	10.61	10.50	10.54	10.60	n/a	n/a	n/a	1.00	n/a	n/a	n/a
8	12.31	12.35	12.13	12.03	12.20	n/a	n/a	n/a	1.01	n/a	n/a	n/a
9	14.73	14.75	14.71	14.54	14.80	n/a	n/a	n/a	1.00	n/a	n/a	n/a
10	24.89	24.55	24.46	24.43	25.40	n/a	n/a	n/a	0.98	n/a	n/a	n/a
Median	1,024	978	925	859	997	916	n/a	n/a	1.03	1.07	n/a	n/a
Mean	1,196	1,133	1,059	983	1,165	1,053	n/a	n/a	1.03	1.08	n/a	n/a
Gini	0.32	0.32	0.31	0.31	0.33	0.34	n/a	n/a	0.97	0.94	n/a	n/a
S80/S20	5.28	5.20	5.09	5.07	5.60	6.00	n/a	n/a	0.94	0.87	n/a	n/a

Notes: Based on household disposable income (HDI) equivalised by the “modified OECD” equivalence scale. HDI are calculated as the sum of all income sources of all household members net of income tax and social insurance contributions; computed at the individual level.

Sources: EL.STAT.



4.2.2 Poverty rates

As a whole, EUROMOD estimates on poverty seem to be generally in line with the external source estimates. With the poverty line set at 60% of median HDI, poverty rates (as estimated by EUROMOD) fall from 19.4% in 2009 to 18.2% in 2012. This is due to the fall of median HDI, caused by the financial crisis that shakes the country since 2010. Note that there are no external data available for years 2011 and 2012.

Table 4.10 At risk of poverty rates by gender and age

Indicator	EUROMOD (I)				External Source (II)				Ratio (I/II)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
40% median HDI												
Total	6.30	6.10	5.90	6.20	7.30	8.20	n/a	n/a	0.86	0.74	n/a	n/a
Males	5.90	5.90	5.70	6.10	7.00	8.20	n/a	n/a	0.84	0.72	n/a	n/a
Females	6.70	6.30	6.10	6.40	7.70	8.20	n/a	n/a	0.87	0.77	n/a	n/a
50% median HDI												
Total	11.80	11.80	11.10	10.90	12.40	14.20	n/a	n/a	0.95	0.83	n/a	n/a
Males	11.30	11.30	10.60	10.70	11.90	13.90	n/a	n/a	0.95	0.81	n/a	n/a
Females	12.30	12.40	11.50	11.20	12.90	14.40	n/a	n/a	0.95	0.86	n/a	n/a
60% median HDI												
Total	19.40	19.30	18.70	18.20	20.10	21.40	n/a	n/a	0.97	0.90	n/a	n/a
Males	18.60	18.70	18.00	17.70	19.30	20.90	n/a	n/a	0.96	0.89	n/a	n/a
Females	20.10	20.00	19.30	18.70	20.90	21.90	n/a	n/a	0.96	0.91	n/a	n/a
70% median HDI												
Total	26.10	26.00	26.10	25.30	27.20	28.60	n/a	n/a	0.96	0.91	n/a	n/a
Males	25.30	25.40	25.70	24.90	26.30	27.80	n/a	n/a	0.96	0.91	n/a	n/a
Females	26.90	26.50	26.60	25.60	28.20	29.40	n/a	n/a	0.95	0.90	n/a	n/a
60% median HDI												
0-15 years	22.70	22.90	21.50	22.60	22.30	23.30	n/a	n/a	1.02	0.98	n/a	n/a
16-24 years	26.80	27.30	27.30	27.00	27.80	26.80	n/a	n/a	0.96	1.02	n/a	n/a
25-49 years	17.80	18.00	17.40	17.80	18.10	18.60	n/a	n/a	0.98	0.97	n/a	n/a
50-64 years	16.40	16.50	16.70	16.10	17.30	20.40	n/a	n/a	0.95	0.81	n/a	n/a
65+ years	19.00	18.00	16.50	13.10	21.30	23.60	n/a	n/a	0.89	0.76	n/a	n/a

Notes: Computed for individuals according to their household disposable income (HDI) equivalised by the “modified OECD” equivalence scale. HDI are calculated as the sum of all income sources of all household members net of income tax and social insurance contributions. The external statistics provided by EUROSTAT are shifted by one year in order to align with EUROMOD’s income reference periods.

Sources: Eurostat online database (indicator ilc_li02)



4.2.3 Validation of ‘full compliance’ scenario

In this section we give a brief overview of what is the impact of assuming full compliance in the net-to-gross income process and tax-benefit modeling in EUROMOD (i.e. no income under-reporting).

As we can see in Table 4.11, adjustments for tax evasion decrease reported employment and self-employment income by 7% and 45% respectively. Personal income tax and employees SIC are also decreased by 34% and 6% on average. The Gini index and poverty rates do not exhibit any significant discrepancies (note that tax evasion adjustments were done assuming that everyone reports the same proportion of income for a given income source).

Table 4.11 Impact of full compliance to taxation rules (no income under-reporting)

	Tax evasion scenario (I)				Full compliance scenario (II)				Ratio (I/II)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Employment income (reported)	58,077	55,426	53,900	49,285	62,230	59,366	57,725	52,779	0.93	0.93	0.93	0.93
Self-employment income (reported)	16,665	15,881	15,443	14,196	30,341	28,952	28,253	26,214	0.55	0.55	0.55	0.54
Income tax	7,843	6,246	9,143	7,963	11,967	10,099	13,420	11,762	0.66	0.62	0.68	0.68
Employee SICs	10,720	10,171	10,191	9,588	11,342	10,762	10,785	10,150	0.95	0.95	0.94	0.94
Gini (Eq HDI)	0.32	0.32	0.31	0.31	0.32	0.32	0.31	0.31	1.00	1.00	1.00	1.00
At poverty risk ^[a]	19.40	19.30	18.70	18.20	19.20	19.50	18.80	18.20	1.01	0.99	0.99	1.00

Notes: [a] 60% of median equivalised HDI.



4.3 Summary of “health warnings”

A certain amount of caution is called for when interpreting the above results. The severe crisis that the country is currently undergoing has had a serious impact on the availability of data needed for macrovalidation purposes. The reduction of resources has led to major delays in the publication of administrative statistical data, while some of the publications (such as the Social Budget and OΓA’s statistical bulletin) have been completely abandoned.

Our approach to accounting for tax evasion, drawing on ongoing research (Matsaganis et al. 2012; Matsaganis & Flevotomou 2010), is a clear improvement on standard practice. Nevertheless, it remains simplistic; assuming that everyone’s income from a given source is under-reported by the same rate leaves much to be desired. In addition, simulations may be imperfect when e.g. income tax rules are too complex to be accurately simulated, or when eligibility for means-tested benefits depends on income in previous years.

Uprating incomes from an earlier date to the present amounts to assuming that everybody’s income from a given source has risen by the same rate over the relevant period. This is clearly unrealistic, and could well understate distributional changes. On the other hand, uprating some incomes (e.g. self-employed earnings, incomes from farming etc.) is subject to an even greater degree of uncertainty due to the lack of reliable information.

Finally, the underlying dataset’s misrepresentation of some population groups (such as families with three or more children and disability benefit recipients) has to be taken into account when trying to interpret EUROMOD’s results.



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Sites of various social insurance funds and benefit agencies:
www.ika.gr
www.oaee.gr
www.oaed.gr
www.oek.gr
www.oga.gr
www.tapote.gr
www.tsay.gr
 - ***Other sources of data***
www.epp.eurostat.ec.europa.eu
www.oecd.org
www.statistics.gr



6. ANNEX

6.1 *TEBE* social contributions simulated

Table 6.1 *TEBE* social contributions simulated (2005, €per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
A	504	732	1,236
B	720	732	1,452
C	936	732	1,668
D	1,152	732	1,884
E	1,524	732	2,256
F	1,752	732	2,484
G	2,148	732	2,880
H	2,640	732	3,372
I	3,984	732	4,716
J	4,860	732	5,592
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,025	560	1,585
2	1,261	689	1,949
3	2,135	817	2,952
4	2,468	944	3,412
5	2,787	1,066	3,853

Table 6.2 *TEBE* social contributions simulated (2006, €per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
A	540.00	780.00	1,320.00
B	768.00	780.00	1,548.00
C	996.00	780.00	1,776.00
D	1,224.00	780.00	2,004.00
E	1,620.00	780.00	2,400.00
F	1,860.00	780.00	2,640.00
G	2,280.00	780.00	3,060.00
H	2,796.00	780.00	3,576.00
I	4,224.00	780.00	5,004.00
J	5,148.00	780.00	5,928.00
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,066.08	582.48	1,648.56
2	1,311.00	716.40	2,027.40
3	2,220.36	849.24	3,069.60
4	2,566.92	981.84	3,548.76
5	2,898.72	1,108.80	4,007.52

Table 6.3 *TEBE* social contributions simulated (2007, €per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,612.80	780.00	2,392.80
2	1,969.80	780.00	2,749.80
3	2,351.40	780.00	3,131.40
4	2,567.04	780.00	3,347.04
5	2,961.00	780.00	3,741.00
6	3,339.48	780.00	4,119.48
7	3,570.96	780.00	4,350.96
8	3,861.36	780.00	4,641.36
9	4,122.24	780.00	4,902.24
10	4,383.24	780.00	5,163.24
11	4,644.12	780.00	5,424.12
12	4,905.00	780.00	5,685.00
13	5,166.00	780.00	5,946.00
14	5,427.00	780.00	6,207.00
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,128.96	616.92	1,745.88
2	1,378.80	753.48	2,132.28
3	2,351.40	899.40	3,250.80
4	2,567.04	981.84	3,548.88
5	2,961.00	1,132.56	4,093.56
6	3,339.48	1,277.40	4,616.88
7	3,570.96	1,365.84	4,936.80
8	3,861.36	1,476.96	5,338.32
9	4,122.24	1,576.80	5,699.04
10	4,383.24	1,676.64	6,059.88
11	4,536.12	1,776.36	6,312.48
12	4,905.00	1,876.20	6,781.20
13	5,166.00	1,976.04	7,142.04
14	5,427.00	2,075.76	7,502.76



Table 6.4 TEBE social contributions simulated (2008, € per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,741.44	900.00	2,641.44
2	2,127.36	900.00	3,027.36
3	2,539.44	900.00	3,439.44
4	2,772.36	900.00	3,672.36
5	3,197.88	900.00	4,097.88
6	3,606.72	900.00	4,506.72
7	3,856.68	900.00	4,756.68
8	4,170.24	900.00	5,070.24
9	4,452.00	900.00	5,352.00
10	4,733.88	900.00	5,633.88
11	5,015.64	900.00	5,915.64
12	5,297.40	900.00	6,197.40
13	5,579.28	900.00	6,479.28
14	5,861.16	900.00	6,761.16
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,393.44	666.24	2,059.68
2	1,701.84	813.72	2,515.56
3	2,539.44	971.28	3,510.72
4	2,772.36	1,060.44	3,832.80
5	3,197.88	1,223.16	4,421.04
6	3,606.72	1,379.52	4,986.24
7	3,856.68	1,475.16	5,331.84
8	4,170.24	1,595.16	5,765.40
9	4,452.00	1,702.92	6,154.92
10	4,733.88	1,810.68	6,544.56
11	5,015.64	1,918.44	6,934.08
12	5,297.40	2,026.20	7,323.60
13	5,579.28	2,134.08	7,713.36
14	5,861.16	2,241.84	8,103.00



Table 6.5 TEBE social contributions simulated (2009-12, € per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,828.92	900.00	2,728.92
2	2,233.68	900.00	3,133.68
3	2,666.40	900.00	3,566.40
4	2,910.96	900.00	3,810.96
5	3,357.72	900.00	4,257.72
6	3,787.08	900.00	4,687.08
7	4,049.52	900.00	4,949.52
8	4,378.80	900.00	5,278.80
9	4,674.60	900.00	5,574.60
10	4,970.64	900.00	5,870.64
11	5,266.44	900.00	6,166.44
12	5,562.24	900.00	6,462.24
13	5,858.28	900.00	6,758.28
14	6,154.20	900.00	7,054.20
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,646.04	699.60	2,345.64
2	2,010.36	854.40	2,864.76
3	2,666.40	1,019.88	3,686.28
4	2,910.96	1,113.48	4,024.44
5	3,357.72	1,284.36	4,642.08
6	3,787.08	1,448.52	5,235.60
7	4,049.52	1,548.96	5,598.48
8	4,378.80	1,694.84	6,073.64
9	4,674.60	1,788.00	6,462.60
10	4,970.64	1,901.28	6,871.92
11	5,266.44	2,014.44	7,280.88
12	5,562.24	2,127.60	7,689.84
13	5,858.28	2,240.76	8,099.04
14	6,154.20	2,353.92	8,508.12

Note: Since August 2011 all TEBE contributors pay and additional amount of €10 per month for unemployment insurance.



6.2 TAE social contributions simulated

Table 6.6 TAE social contributions simulated (2005, €/per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
E	2,292	732	3,024
F	3,180	732	3,912
G	3,540	732	4,272
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,464	564	2,028
2	1,800	684	2,484
3	2,136	816	2,952
4	2,472	948	3,420
5	2,784	1,068	3,852

Table 6.7 TAE social contributions simulated (2006, €/per year)

Case 1: contributors to the “old” regime			
Insurance class	Pension insurance	Sickness insurance	Total
A	852	780	1,632
B	1,188	780	1,968
C	1,560	780	2,340
D	1,992	780	2,772
E	2,424	780	3,204
F	3,372	780	4,152
G	3,756	780	4,536
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,524	588	2,112
2	1,872	720	2,592
3	2,220	852	3,072
4	2,568	984	3,552
5	2,904	1,104	4,008
6	3,156	1,212	4,368
7	3,396	1,296	4,692



Table 6.8 TAE social contributions simulated (2007, €per year)

Case 1: contributors to the “old” regime			
Same as TEBE (Table 6.3, case 1)			
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,612.80	616.92	2,229.72
2	1,969.80	753.48	2,723.80
3	2,351.40	899.40	3,250.80
4	2,567.04	981.84	3,548.88
5	2,961.00	1,132.56	4,093.56
6	3,339.48	1,277.40	4,616.88
7	3,570.96	1,365.84	4,936.80
8	3,861.36	1,476.96	5,338.32
9	4,122.24	1,576.80	5,699.04
10	4,383.24	1,676.64	6,059.88
11	4,536.12	1,776.36	6,312.48
12	4,905.00	1,876.20	6,781.20
13	5,166.00	1,976.04	7,142.04
14	5,427.00	2,075.76	7,502.76

Table 6.9 TAE social contributions simulated (2008, €per year)

Case 1: contributors to the “old” regime			
Same as TEBE (Table 6.4, case 1)			
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,741.80	666.24	2,408.04
2	2,127.36	813.72	2,941.08
3	2,539.44	971.28	3,510.72
4	2,772.36	1,060.44	3,832.80
5	3,197.88	1,223.16	4,421.04
6	3,606.72	1,379.52	4,986.24
7	3,856.68	1,475.16	5,331.84
8	4,170.24	1,595.16	5,765.40
9	4,452.00	1,702.92	6,154.92
10	4,733.88	1,810.68	6,544.56
11	5,015.64	1,918.44	6,934.08
12	5,297.40	2,026.20	7,323.60
13	5,579.28	2,134.08	7,713.36
14	5,861.16	2,241.84	8,103.00



Table 6.10 TAE social contributions simulated (2009-12, €per year)

Case 1: contributors to the “old” regime			
Same as TEBE (Table 6.5, case 1)			
Case 2: contributors to the “new” regime			
Insurance class	Pension insurance	Sickness insurance	Total
1	1,828.92	699.60	2,528.52
2	2,233.68	854.40	3,088.08
3	2,666.40	1,019.88	3,686.28
4	2,910.96	1,113.48	4,024.44
5	3,357.72	1,284.36	4,642.08
6	3,787.08	1,448.52	5,235.60
7	4,049.52	1,547.96	5,597.48
8	4,378.80	1,674.84	6,053.64
9	4,674.60	1,788.00	6,462.60
10	4,970.64	1,901.28	6,871.92
11	5,266.44	2,014.44	7,280.88
12	5,562.24	2,127.60	7,689.84
13	5,858.28	2,240.76	8,099.04
14	6,154.20	2,353.92	8,508.12

Note: Since August 2011 all TAE contributors pay an additional amount of €10 per month for unemployment insurance.

6.3 TΣAY social contributions simulated

Table 6.11 TΣAY social contributions simulated (2005, €per year)

Social insurance contributions (SIC)	Contributors first employed before 1 January 1993		Contributors first employed after 1 January 1993	
	<5 years	>5 years	<5 years	>5 years
Length of service				
Case 1: employees				
A. contributions paid as % of reference earnings				
Primary pension	0.00	0.00	4.00	6.67
Sickness insurance	5.00	5.00	2.55	2.55
Additional benefits	0.00	0.00	4.00	4.00
Total	5.00	5.00	10.55	13.22
B. contributions paid as a lump sum (€per month)				
Primary pension	94.90	158.00	0.00	0.00
Sickness insurance	0.88	0.88	0.88	0.88
Additional benefits	2.93	2.93	0.00	0.00
Total	98.71	161.81	0.88	0.88
Case 2: self-employed (€per month)				
Primary pension	94.90	150.00	73.20	122.00
Sickness insurance	40.28	40.28	40.28	40.28
Additional benefits	2.93	2.93	24.40	24.40
Total	137.61	193.21	137.88	186.68

Table 6.12 *TΣAY* social contributions simulated (2006, €per year)

Social insurance contributions (SIC)	Contributors first employed before 1 January 1993		Contributors first employed after 1 January 1993	
	<5 years	>5 years	<5 years	>5 years
Case 1: employees				
A. contributions paid as % of reference earnings				
Primary pension	0.00	0.00	4.00	6.67
Sickness insurance	5.00	5.00	2.55	2.55
Additional benefits	0.00	0.00	4.00	4.00
Total	5.00	5.00	10.55	13.22
B. contributions paid as a lump sum (€per month)				
Primary pension	100.50	167.50	0.00	0.00
Sickness insurance	2.00	2.00	2.00	2.00
Additional benefits	2.93	2.93	0.00	0.00
Total	105.43	170.43	2.00	2.00
Case 2: self-employed (€per month)				
Primary pension	100.50	167.50	76.20	126.90
Sickness insurance	42.90	42.90	42.90	42.90
Additional benefits	2.93	2.93	25.40	25.40
Total	146.33	213.33	144.50	195.20

Table 6.13 *TΣAY* social contributions simulated (2007, €per year)

Social insurance contributions (SIC)	Contributors first employed before 1 January 1993		Contributors first employed after 1 January 1993	
	<5 years	>5 years	<5 years	>5 years
Case 1: employees				
A. contributions paid as % of reference earnings				
Primary pension	0.00	0.00	4.00	6.67
Sickness insurance	5.00	5.00	2.55	2.55
Additional benefits	0.00	0.00	4.00	4.00
Total	5.00	5.00	10.55	13.22
B. contributions paid as a lump sum (€per month)				
Primary pension	106.50	177.60	0.00	0.00
Sickness insurance	2.00	2.00	2.00	2.00
Additional benefits	2.93	2.93	0.00	0.00
Total	111.43	182.53	2.00	2.00
Case 2: self-employed (€per month)				
Primary pension	106.50	177.60	79.20	132.00
Sickness insurance	44.60	44.60	44.60	44.60
Additional benefits	2.93	2.93	26.40	26.40
Total	154.03	225.13	150.20	203.00

Table 6.14 *TΣAY* social contributions simulated (2008-12, €per year)

Social insurance contributions (SIC)	Contributors first employed before 1 January 1993		Contributors first employed after 1 January 1993	
	<5 years	>5 years	<5 years	>5 years
Case 1: employees				
A. contributions paid as % of reference earnings				
Primary pension	0.00	0.00	4.00	6.67
Sickness insurance	5.00	5.00	2.55	2.55
Additional benefits	0.00	0.00	4.00	4.00
Total	5.00	5.00	10.55	13.22
B. contributions paid as a lump sum (€per month)				
Primary pension	113.00	188.30	0.00	0.00
Sickness insurance	2.00	2.00	2.00	2.00
Additional benefits	2.93	2.93	0.00	0.00
Total	117.93	193.23	2.00	2.00
Case 2: self-employed (€per month)				
Primary pension	113.00	188.30	81.60	136.00
Sickness insurance	45.80	45.80	45.80	45.80
Additional benefits	2.93	2.93	27.20	27.20
Total	161.73	237.03	154.60	209.00

Note: Since August 2011 all *TΣAY* self-employed contributors pay and additional amount of €10 per month for unemployment insurance.

6.4 *OFA* social contributions simulated

Table 6.15 *OFA* social contributions simulated (2005, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	310.56	66.60	21.12	398.28
2	384.96	82.56	21.12	488.64
3	463.32	99.24	21.12	583.68
4	571.68	122.52	21.12	715.32
5	680.04	145.68	33.12	857.40
6	787.68	168.84	33.12	988.20
7	894.48	191.64	33.12	1,117.80

Table 6.16 *OFA* social contributions simulated (2006, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	323.04	69.24	22.08	414.36
2	400.44	85.80	22.08	508.32
3	481.80	103.20	22.08	607.08
4	594.60	127.44	22.08	744.12
5	707.28	151.56	33.12	891.96
6	819.24	175.56	33.12	1,027.92
7	930.24	199.32	33.12	1,162.68

Table 6.17 *OFA* social contributions simulated (2007, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	336.00	72.00	22.08	430.08
2	416.40	89.28	22.08	527.76
3	501.12	107.40	22.08	630.60
4	618.36	132.48	22.08	772.92
5	735.60	157.56	33.12	926.28
6	852.00	182.52	33.12	1,067.64
7	967.56	207.36	33.12	1,208.04

Table 6.18 *OFA* social contributions simulated (2008, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	349.44	74.88	22.32	446.64
2	433.08	92.76	22.32	548.16
3	521.16	111.72	22.32	655.20
4	643.08	137.76	22.32	803.16
5	765.00	163.92	33.48	962.40
6	886.08	189.84	33.48	1,109.40
7	1,006.20	215.64	33.48	1,255.32

Table 6.19 *OFA* social contributions simulated (2009-10, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	367.08	78.60	23.04	468.72
2	455.04	97.44	23.04	575.52
3	547.44	117.36	23.04	687.84
4	675.60	144.72	23.04	843.36
5	803.64	172.20	34.56	1,010.40
6	930.84	199.44	34.56	1,164.84
7	1,057.08	226.56	34.56	1,318.20

Table 6.20 *OFA* social contributions simulated (2011, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	378.08	135.03	23.04	536.14
2	468.64	167.37	23.04	659.05
3	563.92	201.40	23.04	788.36
4	695.86	248.52	23.04	967.43
5	827.80	295.64	34.56	1,158.00
6	958.80	342.43	34.56	1,335.78
7	1,088.83	388.87	34.56	1,512.26

Table 6.21 *OFA* social contributions simulated (2012, €per year)

Insurance class	Pension insurance	Sickness insurance	Additional benefits	Total
1	396.96	141.72	23.76	562.44
2	492.12	175.80	23.76	691.68
3	592.08	211.44	23.76	827.28
4	730.68	261.00	23.76	1,015.44
5	869.16	310.44	35.64	1,215.24
6	1,006.80	359.52	35.64	1,401.96
7	1,143.24	408.36	35.64	1,587.24

6.5 2005-12 distributions of self-employed contributors

Table 6.22 Distribution of *TEBE* contributors by insurance class (2005)

Case 1: contributors to the “old” regime		
Insurance class	No. of contributors	%
A	3	0.0
B	0	0.0
C	38	0.0
D	64	0.0
E	14,514	2.6
F	68,107	12.0
G	54,513	9.6
H	233,649	41.1
I	2,529	0.4
J	11,804	2.1
Total “old” regime	385,221	67.8
Case 2: contributors to the “new” regime		
Insurance class	No. of contributors	%
1	58,282	10.3
2	41,304	7.3
3	30,764	5.4
4	22,528	4.0
5	30,098	5.3
Total “new” regime	182,976	32.2
Total <i>TEBE</i>	568,197	100.0

Table 6.23 Distribution of *TEBE* contributors by insurance class (2006)

Case 1: contributors to the “old” regime		
Insurance class	No. of contributors	%
A	4	0
B	0	0
C	42	0
D	74	0
E	21,112	5
F	63,834	17



G	52,810	14
H	226,077	60
I	2,587	1
J	12,324	3
Total “old” regime	378,864	100
Case 2: contributors to the “new” regime		
Insurance class	No. of contributors	%
1	84,287	39
2	44,452	20
3	32,316	15
4	23,774	11
5	33,599	15
6	36	0
7	27	0
8	19	0
9	8	0
10	24	0
11	7	0
12	5	0
13	1	0
14	59	0
Total “new” regime	218,614	100

Note: For contributors to the “new” regime insurance classes 1-5 are compulsory and 6-14 optional.

Table 6.24 Distribution of TAE contributors by insurance class (2004^[a])

Case 1: contributors to the “old” regime		
Insurance class	No. of contributors	%
E	165,902	73.5
F	1,169	0.5
G	16,509	7.3
Total “old” regime	183,580	81.3
Case 2: contributors to the “new” regime		
Insurance class	No. of contributors	%
1	12,043	5.3
2	9,580	4.2
3	8,533	3.8
4	7,374	3.3
5	4,623	2.0
Total “new” regime	42,153	18.7
Total TAE	225,733	100.0

Notes: [a] No data available for TAE’s 2005-06 distributions. Hence, 2004 data were used for the 2005-06 allocation of other self-employed workers to insurance classes.

Table 6.25 Distribution of *OAE*E contributors by insurance class (2007-2008)

Case 1: contributors to the “old” regime				
Insurance class	2007		2008	
	No. of contributors	%	No. of contributors	%
1	22,938	5	39,631	8
2	58,276	12	55,328	11
3	49,492	10	47,354	10
4	64,328	13	62,141	13
5	271,721	55	256,428	53
6	27	0	106	0
7	666	0	703	0
8	11,984	2	10,674	2
9	26	0	65	0
10	2,445	0	2,241	0
11	41	0	112	0
12	24	0	82	0
13	22	0	46	0
14	12,972	3	13,189	3
Total <i>OAE</i>E	494,962	100	488,100	100

Case 2: contributors to the “new” regime				
Insurance class	2007		2008	
	No. of contributors	%	No. of contributors	%
1	145,039	47	176,458	53
2	55,746	18	53,116	16
3	40,996	13	39,212	12
4	27,566	9	26,536	8
5	40,942	13	39,412	12
6	84	0	91	0
7	46	0	53	0
8	30	0	44	0
9	20	0	21	0
10	46	0	64	0
11	16	0	19	0
12	8	0	7	0
13	2	0	3	0
14	112	0	134	0
Total <i>OAE</i>E	310,653	100	335,170	100

Note: Since 2007 (when insurance classes were harmonised for all *OAE*E members) there are no separate data for *TEBE* and *TAE* contributors.

Table 6.26 Distribution of *OAE*E contributors by insurance class (2009)

Case 1: contributors to the “old” regime		
Insurance class	No. of contributors	%
1	44,945	10
2	53,148	11
3	45,611	10
4	59,881	13
5	243,572	51
6	254	0
7	711	0
8	9,804	2
9	104	0
10	2,114	0
11	133	0
12	110	0
13	49	0
14	12,584	3
Total <i>OAE</i>E	473,020	100
Case 2: contributors to the “new” regime		
Insurance class	No. of contributors	%
1	196,815	56
2	51,283	15
3	37,925	11
4	25,654	7
5	38,074	11
6	102	0
7	67	0
8	42	0
9	21	0
10	64	0
11	18	0
12	7	0
13	3	0
14	152	0
Total “new” regime	350,227	100

Note: No data available for *OAE*E’s 2010-12 distributions. Hence, 2009 data were used for the allocation of self-employed workers to insurance classes in 2010-12.



Table 6.27 Distribution of OGA contributors by insurance class (2005)

2005		
Insurance class	No. of contributors	%
1	583,515	81.3
2	34,381	4.8
3	34,666	4.8
4	19,308	2.7
5	10,249	1.4
6	2,993	0.4
7	32,666	4.6
Total OGA	717,778	100.0

Table 6.28 Distribution of OGA contributors by insurance class (2006-2007)

Insurance class	2006		2007	
	No. of contributors	%	No. of contributors	%
1	589,501	81.8	585,215	81.9
2	32,442	4.5	30,889	4.3
3	32,955	5.6	31,720	4.4
4	18,876	2.6	18,487	2.6
5	10,286	1.4	10,507	1.5
6	2,937	0.4	2,891	0.4
7	33,818	4.7	34,917	4.9
Total OGA	720,815	100.0	714,626	100.0

Table 6.29 Distribution of OGA contributors by insurance class (2008-2009)

Insurance class	2008		2009	
	No. of contributors	%	No. of contributors	%
1	594,872	82.1	567,407	81.6
2	29,374	4.1	26,689	3.8
3	30,724	4.2	28,781	4.1
4	18,432	2.5	17,849	2.6
5	11,336	1.6	12,304	1.8
6	3,066	0.4	3,218	0.5
7	36,989	5.1	39,190	5.6
Total OGA	724,792	100.0	695,438	100.0

Note: No data available for OGA's 2010-12 distributions. Hence, 2009 data were used for the farmers' allocation to insurance classes in 2010-12.