

EUROMOD

COUNTRY REPORT



ITALY (IT)

2009 - 2013

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

EUROMOD has been enlarged to cover 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 Italy. This work was carried out by the EUROMOD core developer team, based mainly in ISER at the University of Essex, in collaboration with a national team.

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

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

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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.

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

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1. BASIC INFORMATION

1.1 Basic figures

Table 1. Basic figures

| | Pop. (m.) | Pop. < 18 (%) | Pop. ≥ 65 (%) | Life expect. (years) | | Fertility rate | Unemp rate | GDP per head (PPP) | Currency |
|------|--------------|---------------------|---------------------|-------------------------|------|-------------------|---------------|--------------------------|----------|
| | | | | Female | Male | | | | |
| 2009 | 59.000.586 | 17.04 | 20.30 | 84.3 | 79.1 | 1.41 | 7.8 | 24.3 | euro |
| 2010 | 59.190.143 | 17.00 | 20.42 | 84.7 | 79.5 | 1.41 | 8.4 | 25.1 | euro |
| 2011 | 59.364.690 | 16.92 | 20.50 | 84.8 | 79.7 | 1.40 | 8.4 | 25.5 | euro |
| 2012 | 59.394.207 | 16.83 | 20.83 | 84.8 | 79.8 | 1.43 | 10.7 | 25.6 | euro |
| 2013 | 59.685.227 | 16.79 | 21.18 | na | na | na | 12.2 | 25.2 | euro |

Source: Eurostat (2014), indicators demo_pjan, demo_mlexpec, demo_r_frate2, une_rt_a, prc_ppp_ind, wired June 24th, 2014

1.2 The tax-benefit system

Table 2. Tax-benefit system and government budget

| | Total general government revenue % of GDP | Total tax revenue(excluding social security) % of GDP | Total general government expenditure % of GDP | Social protection ^[b] % of GDP |
|------|---|--|--|--|
| 2009 | 46.5 | 29.3 | 51.9 | 29.6 |
| 2010 | 46.1 | 29.1 | 50.5 | 30.1 |
| 2011 | 46.1 | 29.1 | 49.7 | 29.9 |
| 2012 | 47.7 | 30.4 | 50.6 | na |
| 2013 | 47.7 | na | 50.6 | na |

Source: Eurostat (2014), indicators gov_a_main, gov_a_tax_ag, spr_rec_sumt, wired June 24th, 2014

Table 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 | 25.61 | 5.96 | 50.88 | 9.12 | 4.91 | 2.81 | 0.00 | 0.35 |
| 2010 | 25.52 | 5.94 | 51.75 | 9.09 | 4.55 | 2.80 | 0.00 | 0.35 |
| 2011 | 25.00 | 5.63 | 52.11 | 9.15 | 4.93 | 2.82 | 0.00 | 0.35 |
| 2012 | na | na | na | na | na | na | na | na |
| 2013 | na | na | na | na | na | na | na | na |

Source: Eurostat (2013). Indicator “spr_exp_gdp”, last update 26 June 2013.

Table 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 | 26.9 | 7.1 | 10.0 | 21.5 | 24.5 | 4.8 |
| 2010 | 27.3 | 6.6 | 9.9 | 21.4 | 25.9 | 4.8 |
| 2011 | 26.8 | 6.3 | 9.9 | 21.4 | 26.1 | 4.9 |
| 2012 | 27.2 | 6.4 | 9.7 | 20.8 | 25.5 | 4.8 |

Source: Oecd (2014), indicator tax revenue per sector as a percentage of total taxation, wired June 25th, 2014

* Includes self-employed

1.2.1 Basic information about the tax-benefit system

- The tax-benefit system is a national system, with minor differences among Regions and Municipalities due to some local autonomy. For example, Regions can increase the *Personal Income Regional Additional Tax* (Addizionale Regionale IRPEF). Municipalities can fix the *Local Property Tax* rates without some defined ranges and according to the type of house.
- Starting from the 7th April 2011, the public policy calendar has changed, according to the European Semester approved by Ecofin. Starting from then, the tax system is mainly modified by the *Stability Law* (Disegno di Legge di Stabilita') by the 15th of October, and by the *Associated Government Bills* (Disegni di Legge Collegati) approved by the 31st of January each year.
- The State pension age in 2009 was 58 both for men and women. Starting for the 1st January 2012. Male employees of the private sector, self-employed and temporary workers ("para-subordinati"): 66 years. Male and female civil servants: 66 years; Female employees of the private sector: 62 years; Female self-employed and temporary workers ("para-subordinate"): 63 years and 6 months.
- Starting from the Academic year 2010/2011, mandatory education requires achieving upper secondary degree or a vocational degree of at least three years duration within age 18. A 15 years old child can start working and completing her mandatory education by a year of apprenticeship.
- A child is defined *dependent child* if she is a relative or a relative-in-law, and has an income of less than 2.840,51 euro, regardless of the age and cohabitation status.
- The income tax system is individual.
- Incomes from capital gains and return on capital are mainly subject to separate taxation
- By the 31st July each year taxpayers must fill their *Personal Income Tax* return with respect to incomes received the previous calendar year and on the basis of the *Financial Law* in force before September of the previous year.
- The tax system does not provides any indexation. Thresholds for means-tested benefits and contributions are yearly updated by the National Statistical Office taking into account the consumer price index for working class households.
- The means-tested benefit system (mainly at local level) assesses entitlement according to benefit unit income and, in some cases, according to a combination of income and wealth (*ISE – Indicatore della Situazione Economica*). The benefit unit is the family, made of the couple, or the lone parent plus all the dependent family members.

1.3 Social Benefits

Seeking for clearly and completeness, which is a challenging task in a complex and fragmented system as the Italian one, we describe the bundle of social benefits using the following classification criteria:

- **Social Insurance**
 - *Benefits related to the end of the working activity*
 - *Benefits related to the temporary suspension of the working activity*
 - *Benefits related to the reduction in working ability, family and social allowances*
 - *Other benefits*
- **Social Assistance**
 - *Family Support*
 - *Pro-poor allowances*
 - *Benefits related to the reduction in working ability*
 - *Other benefits*

We adopted the traditional distinction between Social Insurance and Social Assistance based on the financing means: the first one is funded by workers' contributions and the benefits are therefore linked to the individuals salary history; the second one, instead, is inspired by a condition of need of the recipient, and the benefit is disconnected with any contribution or working history.

Here we are not concerned about the fund's source, which can be either the National Institute of Social Security (*INPS*), the State or the Local Institutions (Regions, Provinces and Municipalities).

1.3.1 Social Insurance: Benefits related to the end of the working activity

Old-Age Pension (*Pensioni di Vecchiaia – poa*)

The old-age pension is related to a *pay-as-you-go* social security program. The old-age pension is obtained when three conditions are contemporarily fulfilled: (i) age; (ii) minimum contribution; (iii) end of working activity (this last condition does not hold for self-employed individuals). The system has been radically changed in 1995 from a retributive to a contributive one and then again reformed in 2012, reinforcing the contributive nature for all workers. Under the contributive system, the pension is linked to the individual contribution righted up by applying a rate related to the gross domestic product's growth.

The retirement age will be gradually increased from 2012 onwards, according to the increase in life expectancy.

Invalidity Pension (*Pensioni di Invalidità – phl*)

The invalidity pension is given to employees or self-employed individuals suffering from some physical or mental disease which leads to an inability to work. If the disease reduces the ability to work by one third or more, the worker is entitled to receive the **invalidity benefit** (*assegno di invalidità*). The invalidity benefit is allowed for a period of three years and it can be renewed if the inability persists. After three extensions it is automatically renewed. If, instead, the working ability is totally cleared, the worker is entitled to receive the **inability pension** (*pensione di inabilità*).

Survivors' Pension (*Pensioni ai Superstiti – psu*)

The survivors' pension is the benefit due to eligible family members of a deceased insured worker or retired individual.

Eligible family members are:

- the spouse, also if separated or divorced but not re-married;
- dependent children (natural, adoptive, legitimate, in-law), who are minor, students and disable;
- dependent grandchildren;
- 65 years old parents, if there are no eligible spouse, dependent children or grandchildren;
- unmarried brothers and sisters if there are none of the above.

Quotes of pension differ among eligible members and the pension could be reduced over given amounts.

Unemployment benefit (*Indennità di disoccupazione – bunct02*)

In the Italian system we count five unemployment benefits:

- The **ordinary unemployment benefit** (*indennità di disoccupazione ordinaria*);
- The **unemployment benefit with minor requirements** (*indennità di disoccupazione con requisiti ridotti*);
- The **ordinary agricultural unemployment benefit** (*indennità di disoccupazione agricola ordinaria*);
- The **agricultural unemployment benefit with minor requirements** (*indennità di disoccupazione agricola con requisiti ridotti*);
- The **special benefit for agricultural and building unemployment** (*trattamenti speciali per disoccupazione agricola ed edilizia*)

The unemployment benefit is granted to insured employees who have been dismissed. The benefit is not granted to resigned employees, unless the resignation is due to *good cause* as, for example, missed wage payment, sexual harassment, mobbing. The benefit is also given to employees who have been suspended for transitory reasons and causes not due to employers or employees behaviour.

Eligible individuals are employees who have paid (i) contribution against unemployment for at least two years or (ii) 52 weeks of contribution in the two-years period before the date of work suspension.

The benefit amount and the duration of the treatment is different according to the age of the employee. For a detailed description of the ordinary unemployment benefit, we remand to section 2.

The benefit is no more due when the employee (i) has received the benefit for all the allowed days; (ii) starts a new employment; (iii) retires; (iv) refuses an employment proposal with a wage non less than the 20% of the previous one; (v) refuses to be enrolled in social activities; (vi) is erased from the employment lists.

From 2013 the ordinary unemployment benefit has been replaced by ASPI and mini-ASPI. See section 2.2.3

Procedure for mobility and collective dismissals (*Mobilita' – bunct02*)

The procedure for mobility and collective dismissal is a benefit in favour of employees who (i) have already been granted of redundancy payment for all the allowed period; (ii) have been dismissed as a result of a firm policy of staff reduction or production transformation; (iii) have been dismissed for firm shutdown.

The difference between the procedure for mobility and collective dismissals and the redundancy payment is that the latter is an alternative to the employee dismissal, the former comes after the employee dismissal.

Eligible individuals are employees who: (i) have been hired with a long-term contract; (ii) have been enrolled in the mobility lists made out by the Regional Labour Office on the basis of troubled firms reports; (iii) have at least twelve months service in the same firm; (iv) have worked at least for six months in the same firm.

The duration of the allowance is different according to the age of the employee and the firm geographical position:

| Age | Duration |
|-----------------------|-----------------|
| <39 | 12 months |
| 40-49 | 24 months |
| >50 | 36 months |
| <i>Southern Italy</i> | |
| <39 | 24 months |
| 40-49 | 36 months |
| >50 | 48 months |

In general, the benefit cannot be granted for more than the employee service period. The benefit amount is proportional to the redundancy payment that the employee received (or would be entitled to receive) in the period right before the dismissal. In particular:

| Benefit Amount (% of Redundancy Payment) | Duration |
|---|-----------------|
| 100% | first 12 months |
| 80% | months 13 to 36 |
| <i>Southern Italy</i> | |
| 100% | first 12 months |
| 80% | months 13 to 48 |

1.3.2 Social Insurance: Benefits related to the temporary suspension of the working activity¹

Redundancy payment (*Cassa Integrazione Guadagni – bunct01*)

The Redundancy payment is a benefit in favour of troubled firms which provides to employees an income substitute for wage income.

There are types of redundancy payments:

- The **ordinary redundancy payment** (*cassa integrazione ordinaria*)
- The **extra-ordinary redundancy payment** (*cassa integrazione straordinaria*)
- The **building redundancy payment** (*cassa integrazione edilizia*)

Eligible individuals are blue collars, white collars and executives (apprentices excluded) whenever working activity is suspended or reduced because of (i) transitory reasons and causes not due to employers or employees behaviour; (ii) temporary market stagnation.

The benefit amount is the 80% of the gross wage, subject to upper limits, for the lost working hours. For the majority of firms the redundancy payment is granted for a maximum period of 13 weeks to 12 months (according to possible extensions).

Salary supplement for agriculture workers (*Integrazioni salariali a favore dei lavoratori agricoli – Included in bunct01*)

It is an instrument for supporting firms when it is not possible to carry on working and for pledging some income to the employees. Eligible individuals are employees (blue collars, white collars and executives) working full time in farms for at least 180 days per year.

The benefit amount is equal to the 80% of the wage received in the month before the working suspension, subject to upper limits, and it is granted for at most 90 days. The benefit is directly paid by INPS to the employees.

Marriage leave (*Assegno per congedo matrimoniale – Included in yem*)

It is a benefit granted for the wedding of an employee. Entitled individuals are: (i) employed individuals (not white collars) working in manufacture and industrial sector or a cooperative society (also workers at home and apprentices) simple soldiers and non-commissioned officers who have been working at the wedding day from at least one week; (ii) workers and seamen who resigned to get married; (iii) unemployed workers and seamen who at the wedding day have worked at least 15 days in the previous 90; (iv) seamen at military service who have been enrolled for 15 days in the 90 before the recall to arms or the end of the draft. Both spouses are granted if one is entitled. The amount is given without income test and it is equal to seven salary days (eight for seamen). Employers, on behalf of INPS, pay out the benefit at the beginning of the leave period. For unemployed individuals or called to arms it is paid by INPS.

¹ In addition to the benefits listed in the section. **Call to arms benefit** (*Indennità di richiamo alle armi*). It is a benefit which replaces the wage for worker called to military service after the draft. The benefit is supplied, for the whole military service period, to blue collars, white collars, and executives employed in the private sector. Also short-term workers, workers on probation or notice, workers at home and seasonal workers. The benefit amount is equal to the civil wage. For officers executive officers, graduated and members of the special forces it is equal to the difference between the civil wage and the military wage (if lower) for each period of recall after the first two months of the year.

1.3.3 Social Insurance: Benefits related to the reduction in working ability, family and social allowances²

Sickness leave (*Indennità di Malattia – Included in yem*)

The sickness leave is an allowance substitute for the wage which is granted starting for the fourth sickness day of the worker and for no more than 180 days each year. Eligible to receive the benefit are private sector blue-collars, white collars of tertiary and services sectors. Moreover, it is supplied also to unemployed and suspended individuals within 60 days from the end of the working activity (except for short-term workers). The benefit is granted without income test and it is equal to the 50% of the average daily wage for the first 20 days of the sickness period, and to the 66.66% for the subsequent days of sickness related to the same disease or relapse.

Inability Pension (*Pensione di Inabilita' – phl*)

It is a pension owed by employees or self-employed individuals suffering from some physical or mental disease which leads to an inability to work. Entitled individuals have a contributory history of at least five years, three of which paid in the five years before the pension request. Moreover, to be entitled, an individual cannot work, been enrolled in a professional register or in the lists of farmers or self-employed workers.

Inability Allowances for Civil Servants (*phl*)

² In addition to the benefits listed in the section.

Special Sickness allowances (*Indennità e assegni per malattia speciale*). It is an allowance substitute for the wage granted to employees and family members suffering of tuberculosis. The cost is beared by INPS, while the national health system covers the sanitary assistance. Eligible individuals have at least a year of contribution, then other conditions apply according to the type of allowance. The **daily allowance** (€12 or €6 for the family members) is due to the worker who does not receive the full wage during the hospital or outpatient treatments. The **post-sanatorium allowance** (€20 or €10 for the family members) is due to recovered or stabilized individuals after an hospitalization of no less than 60 days, or after an outpatient treatment which lasted at least 60 days and the worker did not work for 60 days, or after a treatment both at hospital and outpatient of at least 60 days. The **treatment or support allowance** (€ 80.67 in 2009) is supplied for two (renewable) years to workers affected by tuberculosis whose earning capacity is reduced by more than one third and who do not receive a continuative full-time wage. The **Christmas allowance** is given to individuals who have benefited in the month of December of at least one day of tuberculosis benefit, and the amount equals 30 days of the most favorable benefit received in December.

Death Allowance (*Rendita per morte*). If the accident at work causes the employee death, the family members are entitled to receive an allowance equal to the 100% of previous year wage, divided as following: 50% to the spouse and 20% to each child (in any case it cannot exceed the 100% of the wage).

Hours of Rest (*Riposi orari, ex allattamento*). Within the first year of age, the mother (also the adoptive mother) is entitled to two hours of rest each day if the working hours are at least six, one if the working hours are less than six. In case of multiple delivery or adoption, the hours of rest are doubled. While, in case the working mother benefits of a childcare supplied by the employee in the working place or close to it, the permit is halved. The hours of rest are in every respect considered as working hours. These hours can be granted also to the working father if it is the only guardian, in alternative to the mother, if the mother is not employed, or if the mother is dead or seriously injured.

Daily permits for blood and spinal cord donors (*Permessi giornalieri per donatori di sangue e midollo*). Blood and spinal cord donors are entitled to receive the full wage for the day they abstain from work to donate. INPS refunds the employers.

Daily permits for mountain and speleological rescuers (*Permessi giornalieri per i volontari del soccorso alpino e speleologico*). Employees voluntary mountain and speleological rescuers are entitled to receive the full wage for the day the leave work. Self-employed individuals are entitled to receive 1/22 or 1/26 of the average monthly earning in the industrial sector, fixed every year by ISTAT.

Civil servants can access to different inability allowances or pensions. In the following we briefly summarize the most important ones.

- **Absolute and Permanent Inability to the assignment** (*Pensione per inabilità assoluta e permanente alla mansione*). The inability to the assignment is limited to the type of task the worker is assigned to, and it gives right to receive the pension only in the case the employee cannot be assigned to a different task at the same working status. Entitled individual (i) have been civil servants for at least 15 years (20 years if enrolled in Local Institutions or Health Institutions), (ii) have been recognized unable to the assignment by a special Committee and (iii) have been dismissed because of the disability. The benefit amount is computed with the same rules as the ordinary old-age pension.
- **Absolute and Permanent Inability to profitable activity** (*Pensione per inabilità assoluta e permanente a proficuo lavoro*) It is granted to workers who have been employed for more than 15 years who suffered by a disability which is not completely disabling, but enough disabling to prevent individuals from being uninterrupted profitably enrolled.
- **Absolute and Permanent Inability to work** (*Pensione per inabilità assoluta e permanente ad attività lavorativa*) After the clinic recovery, INAIL (the National Institute for the Insurance against accidents at work) checks whether the worker has been permanently injured and to what extent. If the inability is greater than the 11%, the worker is entitled to receive an allowance proportional to the degree of disability and his wage in the year before the accident. In case of a worsening in the conditions, the worker can ask for a revision of the allowance. The allowance is computed by summing up two components: a workers' compensation for the biological disability and an indemnity for the economic consequences of the accident. Entitled employees have at least five years of contribution.
- **Direct Disability Pension** (*Pensione Diretta Privilegiata*) The direct disability pension is an allowance granted to employee who have been disabled because of the working activity. The benefit amount is proportional to the infirmity extent and ranges from 8/10 to 1/3 of the pensionable wage. Slightly different rates apply to local institutions' servants.

Family Allowance (*assegni familiari – bfacpwc_s, bfacpxc_s and bfalp_s*)

The Family Allowance is targeted to families of employees and pensioners with family incomes below determined thresholds. The thresholds and the amounts of the benefit are different according to the household composition and number of members, and are fixed every year by Law. This benefit is simulated and we refer to section 2.3.1 for a detailed description.

Maternity Allowances (*Included in yem, yse or bmase and bmals*)

Italian law provides two maternity allowances: the **mandatory maternity leave** (*Indennità per astensione obbligatoria*) and the **parental leave** (*Indennità per astensione facoltativa o congedo parentale*). Moreover, there are a **State** and a **Municipalities dependency benefits** (*Assegno di maternità dello Stato e dei comuni*).

- **Mandatory Maternity Leave Allowance** (*Indennità per astensione obbligatoria – included in yem or yse*)

It is a substitute for the wage and it lasts at most five months, divided in two periods: two months before and three months after the delivery. If the health status of the worker is fine and the working conditions do not harm the future mother and the baby, the period of mandatory leave before the delivery can be shortened to one month, and therefore the period after becomes four months.

For the self-employed mothers, there is no mandatory leave from work.

Entitled to receive the allowance are employee mothers, self-employed mothers enrolled in the lists of the craftsmen, wholesale traders, farmers, who paid the corresponding social contributions, and some temporary workers depending on their contract.

For the employees the allowance is the 80% of the average daily wage. For the self-employed mothers, it is the 80% of the *conventional* daily remuneration, which are fixed each year by law.

- **Parental Leave** (*Indennità per astensione facoltativa o congedo parentale – included in yem or yse*)

Each parent can leave from work until the child is eight years old. The leave cannot exceed jointly for the two parents ten (to eleven) months. The benefit applies also to parents of an adopted child, with different age limits: during the first three years after the adoption, until the child is twelve years old, for a maximum of six (seven for the father) months or ten (to eleven) months if the leave is cumulated between the two parents. If the child enters in the family when she is 12, the age limit is extended to 15.

Entitled to request the parental leave are:

- Employed mothers (unless they are unemployed or suspended, employed in domestic and familiar services or working at home) who can leave up to a continuative or fragmented period of up to six months until the child is eight years old;
- Employed fathers
- Lonely parents up to ten months
- Self-employed mothers who can leave for three months within the first year of the child life.

The allowance is granted without income test for at most six months cumulated between the parents within the first three years of the child.

If the parental leave exceeds six months, from age three to eight, the allowance is means tested: the income of the applicant parent cannot be higher than 2.5 times the minimum pension fixed by law in the year of the request.

The parental leave allowance is the 30% of the average daily wage.

- **State Maternity Benefit** (*Assegno di Maternità concesso dallo Stato*)

It is a benefit granted to mothers with Italian citizenship, EU citizenship or extra-EU citizenship and a long-term residence permit, for each natural or adopted child.

Eligible for the allowance are: (i) working mothers who have at least three months of contribution in the last 18 to 9 months before the delivery (or the adoption); (ii) unemployed mothers if the period between the loss of the social insurance and the delivery or adoption is shorter than nine months; (iii) mothers who voluntarily resigned during pregnancy and have at least three months of contribution in the last 18 to 9 months before the delivery (or the adoption); (iv) mothers who have had some allowances from INPS (for example unemployment benefit or sickness benefit), provided not much time has passed (and in any case no more than nine months).

The State allowance is given to eligible mothers without income test. The Benefit Amount was 1.902.90 euro in 2009, 1.916.22 euro in 2010, 1.946.88 in 2011, 1.999.45 in 2012 and 2,059.43 in 2013 (INPS. circ. 36/2009, 37/2010, 69/2011, 59/2012, 47/2013).

- **Municipalities Maternity Benefit** (*Assegno di Maternità concesso dai Comuni*)

Maternity allowance of the municipality of residence for each child born from or adopted by a woman who is a citizen of an EU or extra-EU country (with a residence permit). See section 2.3.2 for details.

Family leave for severe disability (*Congedo retribuito per assistenza a familiari in condizione di handicap grave – Included in yem*)

It is a benefit granted to (in order of eligibility) employed parents, siblings, children, spouse of an individual affected by severe disability. The benefit is equal to the last wage and comprehends the figurative social security contribution. It is granted for at most two years (consecutive or apportionable) and until an annual maximum which is linked to the average growth rate of the consumer price index for working-class households, elaborated by the National Statistical Office (*ISTAT*). Starting from 2009, the benefit is also granted to the son or daughter living with the severe disabled parent.

1.3.4 Social Insurance: Other Benefits

Compensation benefit (*Pensioni Indennitarie – phl*)

The compensation benefit is given to workers disabled by an industrial accident.

War Pension (*Pensione di Guerra – phl*)

The benefit is given by the Ministry of Economy and Finance to disabled citizens or to eligible family members of a deceased citizen because of war events.

1.3.5 Social Assistance: Family Support

Family Allowance for families with at least three children (*Assegno di sostegno per nuclei familiari con almeno tre figli minori – bchot*)

The Support Benefit for families with at least three children is paid off by the municipalities. The means testing criterion to be entitled of the benefit is based on the Indicator of Economic Situation (*ISE*) which is defined both on income and wealth components.

Scholarships and Free Textbooks Supplies (*Fondi destinati all'erogazione di borse di studio in favore degli alunni nell'adempimento dell'obbligo scolastico e nella successiva frequenza della scuola secondaria e fornitura, anche in comodato, dei libri di testo in favore degli alunni della scuola secondaria superiore – bed*)

The Ministry of Public Education gives each year funds to the regional scholastic offices to finance scholarships and free textbooks supplies.

For the scholarships, eligible students must be enrolled in primary or secondary State or equally recognized institutions and live in families with poor economic status (the threshold is fixed by each region).

As for the free textbooks supplies, eligible students are enrolled in lower secondary schools (grade 6 to 8) and higher secondary schools. Moreover, they live in families whose income is below the threshold fixed each year by law (15,493 euro in 2009/2010, *Ministry of Education, D.D. 11.06. 2009*).

Note that textbooks for primary education are free of charge for everybody.

1.3.6 Social Assistance: Pro-poor Allowances

Social Pensions and Social Allowances to individuals older than 65 (*Assegni sociali a ultra sessantacinquenni – poamt*)

The social pension has been substituted in 1996 by the Social Allowance to individuals older than 65. It is a benefit granted to poor individuals older than 65 years without any income source or an income less than the social allowance. Eligible individuals are Italian resident citizens, San Marino residents, political refugees, EU citizens resident in Italy and extra-EU citizens with long-term residence permit. The monthly amount is related to the income level and the family status of the entitled individual and it is index-linked to the minimum pensions granted by INPS. We refer to section 2.3.4 for a more detailed description.

Minimum Insertion Income (*Reddito Minimo di Inserimento – bsa*)

The Minimum Insertion Income was introduced in 1999 as an experimental policy to tackle poverty and social exclusion. The policy was originally limited to 39 municipalities in the two-years period 1999-2000, and subsequently extended for the period 2001-2002 to 267 new local administration, for a total of 306 municipalities. For the second period, the Ministry of Labour and Social Policies has allocated €180,759,914.68 in 2001 and €222,076,466.61 in 2002. These funds had to be originally used within the end of 2004, but this deadline has been postponed first to the 30th of April 2006 and finally to the 30th of June 2007, to give the possibility to the municipalities still having some money to use it.

Eligible individuals either do not have any income or have an income below the fixed threshold. The threshold was then adjusted by using the following equivalent scale to take into account the number and type of family members (for example, for one-individual family the equivalence scale is 1 and the income threshold €278.88, while for a two-individuals family, the equivalence scale is 1.5 and the income threshold is €437.84)

| Family Members | Equivalence Scale | Threshold (2002), € |
|----------------|-------------------|---------------------|
| 1 | 1.00 | 278.88 |
| 2 | 1.50 | 437.84 |
| 3 | 1.69 | 568.92 |
| 4 | 2.06 | 686.04 |
| 5 | 2.40 | 794.81 |

The equivalence scale was then increased of 0.35 for each other component, of 0.2 if there is just one parent and children aged below 18, of 0.5 for each disabled component and of 0.2 for families with children aged under 18 and working parents. Income taken into account for the means test is the sum of incomes of all family components. By law, employment income accounts only for the 75%.

The benefit amount is the difference between an individual monthly income and the threshold. Although the experiment has been dismissed, the Minimum Insertion Income is still in place in some Italian regions, for instance in Trentino Alto Adige.

Housing Benefit (*bho*)

Regions dispose on monetary transfers in order to promote the purchase of the main residence or to help paying the rent (different names are given to these transfers: *Buono casa per le giovani coppie* in Emilia Romagna, *Mutui a Tasso Zero per le Giovani Coppie* in Veneto, *Risparmio Casa* in Trento; source: IreR 2005); such contribution is usually addressed to special kinds of households, such as young couples, couples with young children and single mothers. The contribution is aimed either to reduce the mortgage interests paid for the purchase of the main residence or to provide a sporadic cash benefit; its amount changes among Regions. Two are the main criteria followed in order to provide such contributions: eligibility criteria (means testing), and selectivity criteria (rankings that necessarily rule eligible individuals out, because of budget constraints). The eligibility criterion differs according to the Regions: differences are mainly in the maximum age allowed for one or both members of the couple and in the maximum ceiling for the household's income and wealth. Regions have access to a special location-fund (*Fondo nazionale per il sostegno all'accesso alle abitazioni in locazione*), the consistency of which is fixed by law each year, as summarized in the following table.

The variable included in the dataset (*bho*) is related to rent-related benefits, mortgage benefits plus a residual component (anything which is not rent-related).

Basic Needs Debit Card (*Carta acquisti*)

It is a pro-poor allowance paid by mean of a debit card. The card can be used for purchases in grocery stores, superstores, pharmacies or gas and electricity bills in postal offices. Moreover, there are agreements with some shops which allow a 5% discount. The total allocated budget for

2009 is 900 millions of euro. Entitled individuals are poor citizens older than 65 or younger than 3 having an Indicator of Equivalent Economic Situation (*indicatore della situazione economica equivalente - ISEE*) of less than 6.322,64 euro in 2011; 6.499.82 euro in 2012; and 6.701.34 euro in 2013. The benefit amount is 80 euro every two months.

Note that similar programmes are already active at local level: regional (Friuli Venezia Giulia), provincial (Milano, Roma) or municipalities (Anzola dell'Emilia, Belluno, Bergamo, Bologna, Bolzano, Brindisi, Casalpusterlengo, Castelfidardo, Fano, Ghedi, Gioia del Colle, Giussano, Laives, Loreto, Magnago, Modena, Novara, Osimo, Padova, Parma, Pogliano Milanese, Prato, Rieti, Sant'Egidio alla Vibrata, Venezia).

1.3.7 Social Assistance: Benefits related to the reduction in working ability³

The so-called civil disabled persons are entitled to receive a benefit (*pdi*) without any working and contributive history. Entitled to receive the benefit are Italian citizens, EU citizens or extra-EU citizens with a long term residence permit, acknowledged as disabled by special committees of a Local Health Institute (*Azienda Sanitaria Locale - ASL*). In particular, the following different allowances are granted to different disabled individuals.

Civil Infirmary Allowance (*Prestazione di invalidita' civile*)

Eligible individuals are (i) Italian citizens and foreigners with long-term residence permit, (ii) with total (100%) invalidity, (iii) aged between 18 and 65, (iv) with an income not larger than the fixed thresholds (14,886.28 in 2009, 15,154.24 in 2010, 15,305.79 in 2011, 15,627.22 in 2012 and 16,127.30 in 2013). The allowance is incompatible with other benefits granted for the same invalidity reason, as war benefits working and other invalidity benefits supplied by other social security institutions. The allowance, granted for 13 months, was 254.88 euro in 2009, 256.67 euro in 2010, 260.78 euro in 2011, 267.57 euro in 2012 and 275.87 in 2013 (*INPS circular letters 132/2009 Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Monthly Assistance Allowance (*Assegno mensile di assistenza*)

Eligible individuals are (i) Italian citizens and foreigners with long-term residence permit, (ii) with an invalidity between 74% and 99%, (iii) aged between 18 and 65, (iv) not capable of working, (v) without any other allowances from any social security institution (vi) with an yearly income not larger than the fixed thresholds (in 2009 4.364.10 euro, in 2010 4.408.95 euro, in 2011 and 4.596.02 euro in 2012 and in 2013 4,738.63 euro). The allowance, granted for 13 months, was 255.13 euro in 2009, 256.67 euro in 2010, in 2011, 267.57 euro in 2012 and 275.87 in 2013 (*INPS circular letters 132/2009. Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Accompany Benefit (*Indennita' di accompagnamento*)

Eligible individuals are (i) Italian citizens and foreigners with long-term residence permit, (ii) with a total invalidity (100%), (iv) not able to walk or not able to do daily life activities. The benefit is granted for 12 months without any income mean test, and it was 472.04 euro in 2009, 480.47 euro in 2010, 487.39 euro in 2011, 492.97 in 2012 and 499.27 in 2013. (*INPS circular letters 132/2009 Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Frequency Benefit (*Indennita' di frequenza*)

³ In addition to the benefits listed in the section. **Allowances for Earthquakes Victims, Lybian re-entered individuals and ex Army employees** (assegni per i colpiti da terremoti, rimpatriati dalla Libia e indennità ai dipendenti delle ex FF.AA.)

It is a benefit awarded for 13 months to minor citizens living in Italy and foreigners with long-term residence permit, who are enrolled in schools, vocational schools, rehabilitative institutions, having persistent troubles in daily life activities or having a ear damage of more than 60 decibel in the healthiest ear. The amount was 255.13 in 2009, 256.67 in 2010 260.78 euro in 2011, 267.57 euro in 2012 and 275.87 in 2013. The benefit is means tested and the personal income of the eligible recipient cannot exceed 4.479.54 in 2011, 4.596.02 in 2012 and 4.738.63 in 2013. (*INPS circular letters 132/2009Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Sightness Pension (*Pensione di cecità*)

There are two types of sightless pensions, according to the degree of sightless of the individual: **absolute** or **partial sightless**. The sightless is defined partial if the residual sight is at most a twentieth in both eyes. Entitled individuals are Italian resident citizens and foreigners with long-term residence permit, not hospitalized. The pensions are means tested (the threshold was 15.154.24 euro in 2010, 15.305.79 euro in 2011, 15.627.22 euro in 2012 and 16,127.30 in 2013), and the benefit amount of the absolute (partial) sightless was 275.91 euro (255.13 euro) in 2009; 277.57 euro (256.67 euro) in 2010; 282.02 euro (260.78 euro) in 2011; 289.36 euro (267.57 euro) in 2012 and 298.33(275.87) in 2013, and it is issued for 13 months. (*INPS circular letters 132/2009Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Special Benefit (*Indennità speciale*)

Individuals affected by partial sightless (residual sight of at most a twentieth in both eyes) are entitled to receive, without income test a monthly benefit of 180.11 euro in 2009; 185.25 euro in 2010; 189.63 euro in 2011 and 193.26 euro in 2012 for 12 months (*INPS circular letters 132/2009Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Deaf-Dumb Pension (*Pensione ai sordomuti*)

It is a monthly benefit granted to deaf-dumb individuals. When the individual is 65 years old, the pension is turned into a social allowance. Eligible individuals are Italian citizens and foreigners with long-term residence permit, aged between 18 and 65, with an income not larger than the fixed thresholds (14,886.28 in 2009; 15,154.24 in 2010; 15.305.79 in 2011; 15.627.22 in 2012 and 16,127.30 in 2013). The benefit amount is granted for 13 months and it was 255.13 in 2009, 256,67 in 2010, 260.78 in 2011. 267.83 in 2012 and 275.87 in 2013. (*INPS circular letters 132/2009Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Communication Benefit (*Indennità di comunicazione*)

It is a benefit granted without income test to Italian resident citizens and foreigners with long-term residence permit. To be entitled for the benefit, the hypacusia must be at least 75 decibel (60 for individuals younger than 12) in the healthiest ear and it must have been occurred in the first twelve years of life. The benefit is incompatible with the frequency benefit, but compatible with the accompany benefit. The benefit amount was 236.15 euro in 2009; 239.97 euro in 2010; 243.10 euro in 2011, 245.63 euro in 2012 and 249.04 in 2013 (*INPS circular letters 132/2009Annex 1, 10/2012 Annex 2 and 149/2012 Annex 2*).

Personal, Long-term Assistance Allowance (*Assegno per assistenza personale continuativa*)

Entitled individuals (i) have been defined by INPS as disabled to working activity, (ii) are incapable to walk alone or (iii) are in need of a permanent help because not able to do everyday activities. The benefit can be requested contextually to the inability pension (see Social Insurance) and it is not granted in case of hospitalization periods provided by the public administrations.

1.3.8 Scope and scale

The following tables provide an indication of relative scale and coverage of the main benefits by showing the number of recipients and the expenditure on each benefit

Table 5. Social benefits: recipients (as % of population)

| | 2009 | 2010 | 2011 |
|---------------------------|-------|-------|-------|
| Old Age Pension | 19.45 | 19.57 | 19.59 |
| Invalidity Pension | 2.71 | 2.52 | 2.36 |
| Survivors Pension | 7.74 | 7.70 | 7.66 |
| Compensatory Allowance | 1.52 | 1.47 | 1.41 |
| Civil Infirmity Allowance | 4.48 | 4.41 | 4.40 |
| Social Pension | 1.36 | 1.35 | 1.37 |
| War Pension | 0.53 | 0.49 | 0.46 |

Source: *MEF. Relazione Generale sulla Situazione Economica del Paese 2013*. Table PS.7 Istat for Total Population

Table 6. Social benefit: expenditure as % of total social protection expenditure

| | 2009 | 2010 | 2011 | 2012 |
|----------------------------|-------|-------|------|------|
| Old Age Pension | 26.80 | 27.11 | na | na |
| Invalidity Pension | 2.72 | 2.54 | na | na |
| Survivors Pension | 9.26 | 9.24 | na | na |
| Civil Infirmity Allowance | 4.90 | 4.81 | na | na |
| Social Pension | 0.96 | 0.93 | na | na |
| War Pension | 0.81 | 0.77 | na | na |
| Family Allowances | 0.81 | 0.82 | na | na |
| State Maternity Allowances | 0.15 | 0.15 | na | na |

Source: *MEF. Relazione Generale sulla Situazione Economica del Paese 2011*. TablePS.8 and PS.9. Eurostat for Total Social Protection Expenditure

1.4 Social contributions

Social contributions are due by employees, employers and self employed individuals on earned income, and the due amount is different according to: (i) the source of income (employment or self-employment income); (ii) the sector of activity (manufacturing, building, mining, publishing, public administration, handicrafting, agriculture, banking and insurance, services, cooperative sector, broadcasting); (iii) the number of persons working in the firm; (iv) the occupational status (executives, white collars, blue collars). The average contribution rate is about 40%: part is due by the employer, part by the employee.

The National Institute of Social Security (*INPS*) collects contributions for the following insurances:

- Invalidity, Old Age and Survivors (*Invalidità, Vecchiaia, Superstiti*)
- Unemployment (*Disoccupazione*)
- Dependency benefit Fund (*Cassa Unica Assegni Familiari*)
- Redundancy Fund (*Cassa Integrazione Guadagni*)
- Procedure for mobility and Collective Dismissals (*Mobilità*)
- Sickness and Maternity Benefit (*Malattia e Maternità*)
- Severance Pay (*TFR*)

See Section 2.4 for details.

1.4.1 Scope and scale

Table 7. Social contributions: contributors (as % of population)

| Social contributions | 2007 | 2008 | 2009 |
|--|-------|-------|----------------|
| Invalidity, Old Age and Survivors | 40.10 | 40.78 | ^[a] |
| Unemployment | 22.69 | 22.76 | 21.72 |
| Dependency benefit | 23.21 | 23.30 | 22.22 |
| Redundancy Fund | 8.29 | 8.36 | 7.73 |
| Procedure for mobility and Collective Dismissals | 5.89 | 6.02 | 5.65 |
| Maternity Benefit | 21.75 | 21.83 | 20.81 |
| Sickness Benefit | 15.95 | 16.01 | 15.25 |

Source: RGS 2007 and RGS 2008 Tables PS.12, 19, 20, 21, 25, 26, 27, RGS 2009 Tables PS.10, 19, 20, 21, 25, 26, 27; RGS 2010 Tables PS.19, 20, 21, 25, 26, 27, 29

^[a]Missing Table in RGS 2010. Data from 2010 not available yet.

Table 8. Social contributions: annual revenue (€millions)

| Social contributions | 2007 | 2008 | 2009 |
|--|---------|---------|----------------|
| Invalidity, Old Age and Survivors | 168,046 | 175,781 | ^[a] |
| Unemployment | 3,281 | 4,031 | 5,881,7 |
| Dependency benefit | 5,839 | 6,096 | 6,247 |
| Redundancy Fund | 2,869 | 2,966 | 2,977 |
| Procedure for mobility and Collective Dismissals | 581 | 574 | 590 |
| Maternity Benefit | 976 | 1,028 | 1,092 |
| Sickness Benefit | 3,905 | 4,147 | 4,217 |

Source: MEF 2007 and MEF 2008 Tables PS.12, 19, 20, 21, 25, 26, 27, MEF 2009 Tables PS.10, 19, 20, 21, 25, 26, 27; RGS 2010 Tables PS.19, 20, 21, 25, 26, 27, 29

^[a]Missing Table in RGS 2010. Data from 2010 not available yet.

1.5 Taxes

1.5.1 Personal Income Tax (*IRPEF Imposta sui redditi delle persone fisiche – tinna_s*)

IRPEF has been introduced in 1974, substituting a large number of previous real taxes on income. It is an *individual* and *progressive* tax on total income. Family dimension and composition is also taken into account by the system of deductions and tax credits. The tax is due by resident individuals (wherever the income is produced) and non-resident individuals (for incomes produced in Italy). The definition of taxable income is broad, but the actual tax base is smaller because several income sources are subject to separate taxation. The tax base is made of income from land and buildings, from employment and self-employment, business income and capital income in a marginal way (only a quote of dividends and capital gains from dividends and capital gains from a given type of holding - *Partecipazione Qualificata*⁴ - are included in the personal income tax base).

See Section 2.5 for details.

1.5.2 Personal Income Regional Additional Tax (*IRPEF Addizionale regionale – tinrg_s*)

The Regional Additional Tax is due on the same tax base of the Personal Income Tax. The tax rate is made of two components: a mandatory rate of 0.9% and an additional discretionary rate of up to 0.5%. See Section 2.6.1 for details

⁴ For listed securities, the 2% of the vote rights or the 5% of the company capital; for non-listed securities, the 20% of vote rights or the 25% of the company capital.

1.5.3 Separate Taxation on Capital Income (*Imposte sostitutive sui redditi da capitale – tinktcp_s, tinktdt_s, tinktdv_s, tinktbd_s, tinktgb_s*)

Even if capital income is theoretically included in the personal income tax base, it is mainly subject to separate taxation. Up to 2010, there were two different tax rates: 27% and 12.5%: long-term investments were encouraged by applying the lower rate. From 2011 there are two different tax rates: 20% and 12.5%. With respect to capital gains, some differences arise according to the type of savings regime chosen by the investor. If the portfolio is managed by a financial intermediary, capital gains are taxed at the accrual and it is possible to compensate capital losses with capital income. Otherwise, if the investor self-manages her savings, capital gains are taxed at realization and capital losses may be compensated only with capital gains. A different regime applies to returns on social security investments which are favoured by applying a rate of 11%, and to arrears, severance pay and private pensions paid out in form of capital. See Section 2.6.2 for details

1.5.4 Corporate Tax (*IRES - Imposta sui redditi delle società*)

The corporate tax is a proportional tax levied on net profits. The basis is roughly computed by adding revenues (sales of goods, services, corporate shares, bonds), capital gains (at realizing), perceived dividends and interests (at nominal value), stocks and subtracting the cost of labor, of goods and services, capital losses, paid interests, depreciation and current losses. The tax rate has been 33% until 2007. Starting with the business year after 2007, the rate is 27.5%. Starting from 2008, it is possible to deduct from the IRES basis the 10% of the regional tax on business (IRAP).

1.5.5 Value Added Tax (*IVA - Imposta sul valore Aggiunto*)

The base of the Value Added Tax is the total business value added minus investment expenses, and therefore coincides with the value of final consumption. The due tax is computed by the method *tax-to-tax*. From 2012 the normal tax rate is 21% (before it was 20%), but there are also two lower tax rates 4% and 10%. The lowest is applied to primary goods such as milk, butter, cereals, pasta and bread, books and newspapers. Exemptions apply on financial transactions, public services and health, education and welfare, and a favourable regime is granted to agriculture.

1.5.6 Regional Tax on Business (*IRAP - Imposta sui Redditi delle Attività Produttive*)

IRAP provides about a half of the financing for Regions (mainly devoted to the health system). The tax is imposed on all those engaged in commercial business and on public administrations. It is charged on the net value added resulting from the business pursued in the region defined as the sum of labor costs, interests paid and profits, net from depreciation.

1.5.7 Municipality Property Tax (*ICI and IMU – Imposta Municipale Propria*)

The municipality property tax (*ICI - Imposta comunale sugli immobili*) is due by: (i) owners of buildings, building areas, arable lands located in Italy; (ii) individuals enjoying some real rights on that buildings areas or lands (holders of usufruct, right of user, right of occupancy, emphyteusis, building lease); (iii) lessees; (iv) licensees of State demesne. For buildings registered at the cadastre, the tax base is the cadastral value raised by 5% multiplied by a coefficient which is different according to the building type (from 140 to 34). For the building areas, the tax base is the current selling value. For arable lands, the tax base is the estate income, raised by 25% and multiplied by 75.

Starting from 2008 *ICI* is no more due for the main residence, with the exception of luxury flats, villas, castles and palaces of historic or artistic importance. See the final section on health warnings for details.

Each municipality fixes its own tax rates, which can be found on the web site of the Ministry of Finance: <http://www.finanze.it/dipartimentopolitichefiscali/ici/delibere>

Starting from fiscal year 2012, the Property Tax has been redesigned. The new tax is the *IMU – Imposta Municipale Propria*. The new tax is due by the same subjects as *ICI*.

The tax base for buildings registered at the cadastre is the cadastral value raised by 5% multiplied by a coefficient that is different according to the building type (from 160 to 55).

Tax rates are different according to the type of building and municipalities can modify them. The baseline rates are: 0.4% for the main residence; 0.2% for rural buildings; 0.76% for rented buildings and other cases. In the case of main residences there is a deduction of 200 euro plus 50 euros for each dependent children aged 26 or less living in the household.

In 2013 the Property Tax on the main residence has been abolished.

1.5.8 Other indirect taxes

There is a wide amount of other indirect taxes, traditionally classified in three categories: (i) business taxes; (ii) taxes on production and (iii) monopoly and State lottery.

- The **Registration Duty** (*Imposta di Registro*) is levied upon the legal registration of acts of different nature (concerning a legal transaction or an administrative or legal operation). The main source of revenues is connected to real estate transaction and corporate operations.
- The **Mortgage Duty** (*Imposta Ipotecaria*) is linked to mortgage institutions, modifications or redemptions, and transcriptions concerning real estate's immovable.
- The **Stamp Duty** (*Imposta di Bollo*) is levied upon acts (civil, commercial, legal, extrajudicial), notices, posters, advertisements.
- **Excise duties on energy** which particularly hits oil products (petrol and diesel oil), but which is levied also on beer and spirits.
- **Monopoly and State lottery** provides a non-negligible source of revenue.

1.5.9 Scope and scale

Table 9. Taxes: taxpayers (as % of population)

| | 2009 | 2010 | 2011 | 2012 |
|-----------------------|-------|-------|-------|-------|
| Direct taxes | | | | |
| IRPEF | 70.38 | 70.19 | 69.60 | 69.73 |
| IRES | 1.79 | 1.83 | 1.85 | na |
| Indirect taxes | | | | |
| IVA | 8.77 | 8.65 | 8.53 | 9.05 |
| IRAP | 5.50 | 5.39 | 5.29 | na |

Source: Dipartimento delle Finanze, http://www1.finanze.gov.it/stat_dbNewSerie/index.php

Table 10. Taxes: annual revenue (euro, millions)

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Direct taxes | | | | | |
| IRPEF | 153,508 | 159,939 | 159,076 | 158,894 | 157,644 |
| IRES | 37,678 | 37,731 | 36,971 | 37,555 | 40,543 |
| Regional IRPEF | 8,080 | 8,167 | 8,483 | 10,674 | 10,596 |
| Withholding Capital Tax | 13,215 | 7,598 | 7,269 | 10,157 | 13,842 |
| Indirect taxes | | | | | |
| IVA | 108,727 | 112,891 | 115,608 | 113,025 | 110,094 |
| IRAP | 31,652 | 31,939 | 32,940 | 33,201 | 31,988 |
| Registration and Stamp Duty | 10,435 | 10,470 | 10,088 | 9,751 | 10,993 |
| Excise duties on mineral oil | 20,818 | 19,765 | 20,254 | 24,168 | 23,785 |
| Excise duties on energy | 1,286 | 1,244 | 1,236 | 2,526 | 2,161 |
| Tobacco | 10,070 | 10,241 | 10,398 | 10,401 | 9,850 |
| State lottery | 12,826 | 11,743 | 12,770 | 11,575 | 11,352 |

Source: Banca d'Italia Relazione Annuale sul 2013 Appendice Statistica, Tables a13.5 and a13.6

2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

2.1 Scope of simulation

In the following Table 11, we provide the list of benefits and taxes which are included in EUROMOD.

Table 11. Simulation of benefits and taxes in EUROMOD

| | Variable name | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|---------------|------|------|------|------|------|
| Family Allowance for families with at least three children | bchot | I | I | I | I | I |
| Scholarship | bed | I | I | I | I | I |
| Family Allowances | bfalp_s | | | | | |
| | bfacpxc_s | S | S | S | S | S |
| | bfacpwc_s | | | | | |
| Housing Benefits | bho | I | I | I | I | I |
| State and Municipalities Dependency Benefits | bmals | I | I | I | I | I |
| Maternity leave for selfemployed | bmase | I | I | I | I | I |
| Minimum Insertion Income | bsa | I | I | I | I | I |
| Redundancy Payment | bunct01 | I | I | I | I | I |
| Unemployment Benefits, Procedure for Mobility | bunct02 | I | I | I | I | I |
| Unemployment Benefits, training | bunst | I | I | I | I | I |
| Benefits related to the reduction in working ability | phl | I | I | I | I | I |
| Inability Pensions, Infirmity Allowances and War Pension | pdi | I | I | I | I | I |
| Old Age Pension | poa | I | I | I | I | I |
| Social Allowance to individuals older than 65 | poamt_s | S | S | S | S | S |
| Survivors Pension | psu | I | I | I | I | I |
| Personal Income Tax | tinna_s | S | S | S | S | S |
| Personal Income Regional Additional Tax | tinrg_s | S | S | S | S | S |
| Personal Income Tax on rental income | tinrt_s | - | - | S | S | S |
| Separate Taxation on Capital Income | tinktcp_s | | | | | |
| | tinktdt_s | | | | | |
| | tinktdv_s | S | S | S | S | S |
| | tinktbd_s | | | | | |
| | tinktgb_s | | | | | |
| Separate Taxation on arrears and severance pay | tinsv_s | S | S | S | S | S |
| Property Tax – Main residence | tprmb_s | - | - | - | S | - |
| Property Tax – Other buildings | tprob_s | S | S | S | S | S |
| Employee Social Insurance Contributions | tsceepi_s | S | S | S | S | S |
| | tscesf_s | | | | | |
| Employer Social Insurance Contributions | tscerpi_s | | | | | |
| | tscerui_s | | | | | |
| | tscersv_s | S | S | S | S | S |
| | tscerfa_s | | | | | |
| | tscersf_s | | | | | |
| | tscersi_s | | | | | |
| Self-employed Social Insurance Contributions | tscepi_s | S | S | S | S | S |
| | tscseml_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 can be disregarded. Simulated policies and order of simulation

2.1.1 Simulated Policies

Table 12. Simulated policies

| Section | Policy | Description | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------|--|--|------|------|------|------|------|
| 2.3.1 | bfalp_it, bfacpxc_it, bfacpwc_it | Family allowances | X | X | X | X | X |
| 2.3.3 | bunct02_it | Ordinary Unemployment benefit | X | X | X | X | X |
| 2.3.4 | poamt_s | Social Allowance to individuals older than 65 | X | X | X | X | X |
| 2.4.1 | sicer_it | Employer SICs | X | X | X | X | X |
| 2.4.2 | sicee_it | Employee SICs | X | X | X | X | X |
| 2.4.3 | sicse_it | Self-employed SICs | X | X | X | X | X |
| 2.5 | tintsna_it, tintc_it, tinna_it tinto_s | Personal Income Tax Additional solidarity contribution | X | X | X | X | X |
| 2.6.1 | tinrg_it | Additional Regional Personal Income Tax | X | X | X | X | X |
| 2.6.2 | tinkt_it | Separate Taxation on Capital Income, arrears and severance pay | X | X | X | X | X |
| 2.6.3 | tprmb_s, tprob_s | Property tax | X | X | X | X | X |
| 2.6.4 | tinrt_s | Personal income tax on rental income | - | - | X | X | X |

2.1.2 Order of simulation

Besides the policy sheets containing the uprating factors (Uprate_it), the definition of income lists (ILdef_it) and tax units (TUDef_it), the first “policy” in the spine (ConstDef_it) allows the user to initialise some variables used in the simulations. The following switching policy TCA_it allows the user to decide whether implementing or not the correction for tax evasion (see more detail in Section 3.4.2 – by default, the switch is ON but this can be modified in the Run dialog box). In the policy neg_it the self employment income negative values are set to 0.

The simulation of social insurance contributions (sicee_it, sicer_it and sicse_it) and ordinary unemployment benefit (bunct02_s – switched off by default in the systems) precedes the simulation of the personal income tax because social insurance contributions (paid by employees and self-employed) are deductible and unemployment benefit is taxable.

On the revenue side, first is simulated the tax on rental income (tinrt_s) followed by the property tax (tprmb_s and tprob_s) and the additional solidarity contribution (tinto_s) and the reduction of public sector salaries (yem) and public pensions (poa).

The personal income tax is simulated in three different policy sheets: tintsna_s (including the main tax deductions and the tax schedule), tintc_s (personal tax credits) and tinna_s (family tax credits and final calculation of the tax). Additional regional personal income tax (tinrg_it) and separate taxation on capital income (tinkt_it) follow.

The last four policy sheets of the spine (before the “output” policy sheets) include the simulation of the Social Allowance to individuals older than 65 (poamt_s) and the Family Allowances (bfacpxc_s, bfalp_it and bfacpwc_it).

Table 13. EUROMOD Spine: order of simulation, 2009-2013

| Policy | Description | Main output |
|------------------|--|--|
| Uprate_it | Uprating factors | |
| ConstDef_it | Variable initialisation | |
| TCA_it | Tax evasion correction | |
| ILDef_it | Income concepts | |
| TUDef_it | Assessment units | |
| yem_it | Minimum wage (not existent in Italy and hence switched off) | |
| neg_it | Negative self-employment income set to 0 | yse |
| sicee_it | Employee SICs | tsceepi_s, tsceesf_s |
| sicer_it | Employer SICs | tscerpi_s, tscerui_s, tscersv_s, tscerfa_s, tscersf_s, tscersi_s |
| sicse_it | Self-employed SICs | tscsepi_s, tscseml_s |
| tinrt_it | Tax on rental income | tinrt_s |
| tpr_it | Property tax | tprmb_s, tprob_s |
| bunct02_it | Ordinary Unemployment benefit | bunct02_s |
| tinto_it | Additional solidarity contribution | tinto_s, yem, poa |
| tintsna_it | Personal Income Tax: Deductions and tax schedule | tintsna_s |
| tintc_it | Personal Income Tax: personal tax credits | tinna_s |
| tinna_it | Personal Income Tax: family tax credits and final tax | tinna_s |
| tinrg_it | Additional Regional Personal Income Tax | tinrg_s |
| tinkt_it | Separate Taxation on Capital Income, arrears and severance pay | tinktcp_s, tinktdt_s, tinktdv_s, tinktdb_s, tinktgb_s, tinsv_s |
| poamt_it | Social Allowance to individuals older than 65 | poamt_s |
| bfacpxc_it | Family allowance: couple and 0 child | bfacpxc_s |
| bfalp_it | Family allowance: one parent and children | bfalp_s |
| bfacpwc_it | Family allowance: two parents and children | bfacpwc_s |
| output_std_it | Standard output – individual level | |
| output_std_hh_it | Standard output – household level | |

2.1.3 Structural changes between 2009 and 2010

Personal Income Tax (IRPEF): bonus and stock options that exceeds three times the fixed wages of employees in managerial position or consultants in the financial sectors are subject to an additional tax rate of 10% (not simulated).

Social Contribution: contributory rate for short-term employee with special contracts (*lavoratori parasubordinati*) is increased from 25% to 26% if they are not enrolled in a mandatory insurance scheme. The rate of contribution for the same class of workers is 17% if they are enrolled in some mandatory insurance scheme (as assumed in ERUOMOD).

2.1.4 Structural changes between 2010 and 2011

Personal Income Tax (IRPEF): Tax credit for home refurbishing at 36% has been confirmed and tax credit for energy saving interventions have been prorogued (imputed)

A **Property Tax on building owned abroad** has been introduced. The tax rate is 0.76% and the tax base is the value of the building, as from the purchase act (not simulated).

Corporate Tax (IRES) The five years time limit for spanning losses has been replaced by the quantitative limit of 80% of the tax base. Losses suffered in the first three years after the activity has been founded can be spanned forward limitless.

From the 1st January 2012. the total amount of IRAP paid on the cost of labour is deductible

from the tax base. Moreover, it is possible to deduct from the tax base the 10% of the IRAP paid on mortgages.

Separate Taxation on Capital Incomes: Starting from the 1st July 2011, taxation on mutual funds changed. There has been a shift from an annual taxation of 12.5% levied on the fund capital gains, to the direct taxation of 12.5% levied on investors when they sell or redeem their shares.

Value Added Tax (IVA – *Imposta sul Valore Aggiunto*): from the 17th September 2011, value added tax rate is increased from 20% to 21%.

Regional Personal Income Additional Tax (*Addizionale Regionale all'IRPEF*): the baseline tax rate has been increased from 0.9% to 1.23%.

Old Age Pension: From January 1st 2011, pension age is risen to 66. For female pensioners of private sector there will be a gradual increasing of the pension age until 2018 when there will be complete equality between workers.

2.1.5 Structural changes between 2011 and 2012

Personal Income Tax (IRPEF): Starting from 1st January 2011 an additional tax rate of 3% is levied on taxable incomes above 300.000 euro (Additional solidarity contribution - *Contributo di Solidarietà*).

Separate Taxation on Capital Incomes: Tax rates on capital incomes are increased from 12.5% to 20%. Interests from State bonds (both Italian and foreign) are still taxed at 12.5%.

Municipal Property Tax (IMU – *Imposta Municipale Propria*): Starting from fiscal year 2012, the property tax has been redesigned. The new tax is due by the same subjects as ICI. The tax base for buildings registered at the cadastre is the cadastral value raised by 5% multiplied by a coefficient that is different according to the building type (from 160 to 55). Tax rates are different according to the type of building and municipalities can modify them. The baseline rates are: 0.4% for the main residence; 0.2% for rural buildings; 0.76% for rented buildings and other cases. In the case of main residences there is a deduction of 200 euro plus 50 euros for each dependent children aged 26 or less living in the household.

For details about the austerity measures introduced in the 2011-12 fiscal years (and simulated), see Avram et al. (2013).

2.1.6 Structural changes between 2012 and 2013

Municipal Property Tax (IMU – *Imposta Municipale Propria*): Abolition of property tax on main residence

For details about the austerity measures introduced in the 2012-14 fiscal years (and simulated), see Figari and Fiorio (2014).

2.2 Social benefits

2.2.1 Family Allowances (*bfacpxc_s*, *bfalp_s*, *bfacpwc_s*)

The **Family Allowances** (*Assegno per il nucleo Familiare*) are targeted to families of employees and pensioners with family incomes below determined thresholds. The thresholds

and the amounts of the benefit are different according to the household composition and number of members, and are fixed every year by Law.

- **Definition**

The unit of analysis is the family (*tu_fa_family_it*) including⁵:

- The referent person who asks for the benefit;
- The spouse;
- Children and grandchildren of direct ascendant if aged under 18.

- **Eligibility conditions**

Eligible individuals are: employees, retired employees, unemployed individuals receiving the unemployment benefit, individuals under severance pay, individuals under procedure for mobility and collective dismissal, employees on sick or maternity leave (recipients of income source included in the income list *il_fa_dep*).

An individual is entitled to receive the benefit if the sum of the above income sources, net of social contributions, amounts to at least 70% of the whole family members' income (*il_fa_totinc*). Sources of income not subject to income tax or subject to withholding tax (*il_fa_disregy*) are included only for the amount larger than 1,032.91 euro per year (disregarded amount: *ydg01_s*).

The income relevant for the benefit is the income produced in the solar year before the 1st of July of each year, and it remains valid until the 30th of June of the following year. Therefore, for example, for the period between the 1st of July 2009 and the 30th of June 2010, income produced in 2008 is taken into account. For the simulation of the benefit, we assume the family income to stay constant in two consecutive years and we use the income thresholds as of 1st July (instead of 30th June).

- **Income test**

The access to the benefit is restricted to those families below an income threshold. The threshold is different according to the composition of the family (presence of either spouses or just one, presence of children aged under 18) and increasing in the number of family members. Income thresholds are adjusted each year and index-linked to the annual average growth rate of the consumer price index for working-class households, elaborated by the National Statistical Office (*ISTAT*):

Table 14. Annual Average Growth Rate of consumer price index (% with respect to previous year)

| Year | Δ% |
|-------------|-----------|
| 2010 | +0.7 |
| 2011 | +1.6 |
| 2012 | +2.7 |
| 2013 | +3.0 |

Source: ISTAT, FOI, Indice Nazionale dei prezzi al consumo per le famiglie di operai ed impiegati.

⁵ Other entitled individuals (not included in the simulation due to lack of information in the data) include i) children aged above 18 unable to work; ii) siblings and nephews aged under 18 or aged above 18 unable to work, if they are orphans of both parents and do not receive any survivor pension, iii) one single person receiving a survivor pension (orphan or spouse), if she is aged under 18 or aged above 18 unable to work.

- ***Benefit amount***

The employer has to pay the benefit to entitled employees who ask for it. The benefits to be paid to children of divorced parents, to natural children, to siblings, to nephews, to invalid family members and to family members living abroad have to be approved by the National Institute of Social Security - INPS.

The benefit is paid off together with the wage for employees. Then, the employer asks INPS to be refunded. Unemployed individuals and pensioners receive the benefit from INPS.

The income thresholds and the benefit amount (valid from 1st July to 30th June) depend on family composition. We simulate Family Allowances for three types of family:

- family with no children – (*bfacpxc_s*)
- family with one parent and at least one child aged <18 – (*bfalp_s*)
- family with two parents and at least one child aged <18 – 2005 (*bfacpwc_s*)

The benefit amount decreases with income in a non linear way. Moreover, for families with more than 7 members the monthly benefit amount is increased by 10% plus a lump sum of 53.71 euro per month. See EUROMOD policy sheets for the specific benefit amounts.

Family income thresholds for 2010, 2011, 2012, and 2013 are found by applying the rates show in Table 14 to the income threshold for 2009. Benefit amounts remain constant over the period considered.

- ***EUROMOD notes***

Since in the dataset we do not have any detailed information on the disability status (as defined by the Law) of the individuals, in the simulation we assume that there are no disabled persons.

The discipline of the benefit applies also to part-time workers, with some differences. If the worker has worked at least 24 hours a week, the allowance is due without reductions for each weekday, including Saturday (even if it is not a working day). If the worker has worked less than 24 hours a week, the allowance is due only for the working days. Due to lack of data on the hours worked, the reduction for part time workers is not considered in the simulation.

As mentioned above, for the simulation of the benefit, the family income is assumed to stay constant in two consecutive years (e.g. by law the income thresholds valid at 30th June of 2009 are applied to the income earned in 2007. In the simulation we observe income earned in 2009, assuming that family composition and family income do not change between 2007 and 2009 and we use the income thresholds as of 1st July (instead of 30th June).

2.2.2 Municipalities Maternity Benefit (*Assegno di Maternità concesso dai Comuni – bmals*)

Not simulated in EUROMOD due to lack of information to derive the income-asset test (ISEE).

- ***Definitions***

It is a benefit granted to mothers with Italian citizenship, EU citizenship or extra-EU citizenship and a long term residence permit or under political asylum, for each natural or adopted child.

- **Eligibility Conditions**

Entitled mothers do not receive any other maternity benefit, or receive another benefit which is smaller than the municipality one (in this case the municipality supplies the difference).

- **Income Test**

The benefit is means tested by using the Indicator of Economic Situation (*Indicatore della situazione economica - ISE*), and the threshold is fixed each year by law for a reference family of three members (for 2013, this amounts to 34,873.24 euro):

For families with a different composition the following equivalence scale applies:

Table 15. Equivalence Scale

| Family Members | Parameters ¹ |
|----------------|-------------------------|
| 1 | 1.00 |
| 2 | 1.57 |
| 3 | 2.04 |
| 4 | 2.46 |
| 5 | 2.85 |

¹ +0.35 for each other member; + 0.2 if there are minors and a lonely parent; + 0.5 for each other disable member; +0.2 for families with minors where both parents work.

Source: Decreto Legislativo 31 March 1998, n. 109

- **Benefit Amount**

The benefit amount is fixed each year by law and it paid by INPS:

Table 16. Municipalities Maternity Benefit Amount

| Year | Monthly Amount (Euro) | Total Amount (Euro) |
|------|--------------------------|------------------------|
| 2009 | 309,11 | 1.545,55 |
| 2010 | 311,27 | 1.556,35 |
| 2011 | 316,25 | 1.581,25 |
| 2012 | 324,79 | 1.623,95 |
| 2013 | 334,53 | 1,672.65 |

Source: INPS circular letters 36/2009, 37/2010, 69/2011, 59/2012, 47/2013.

- **EUROMOD notes**

Not simulated.

2.2.3 Ordinary Unemployment benefit (*Disoccupazione ordinaria / ASPI – bunct02_s*)

- **Definitions**

The ordinary unemployment benefit is granted to insured employees who have been dismissed. From 2013 the ordinary unemployment benefit has been replaced by ASPI and mini-ASPI. The mini-ASPI is not simulated due to the lack of information available in the datasets

- **Eligibility Conditions**

The benefit is not granted to resigned employees, unless the resignation is due to *good cause* as, for example, missed wage payment, sexual harassment, mobbing. The benefit is also given to

employees who have been suspended for transitory reasons and causes not due to employers or employees behaviour. The benefit is no more due when the employee (i) has received the benefit for all the allowed days; (ii) starts a new employment; (iii) retires; (iv) refuses an employment proposal with a wage non less than the 20% of the previous one; (v) refuses to be enrolled in social activities; (vi) is erased from the employment lists.

Eligible individuals are employees who have paid (i) contribution against unemployment for at least two years or (ii) 52 weeks of contribution in the two-year period before the date of work suspension.

- **Income Test**

There is not an income test, but the law fixes a maximum monthly amount which depends on the wage. These thresholds are summarized in the following table.

Table 17. Ordinary Unemployment Maximum Amount – 2009-2012

| Year | Wage Threshold | Benefit Maximum Amount | |
|------|----------------|------------------------|---------------------|
| | | Below the threshold | Above the threshold |
| 2009 | 1,917.48 | 886.31 | 1,065.26 |
| 2010 | 1,931.86 | 892.96 | 1,073.25 |
| 2011 | 1,961.80 | 906.80 | 1,089.89 |
| 2012 | 2,014.77 | 931.28 | 1,119.32 |

Source: *INPS Circular Letter 11/2009, 18/2010, 25/2011 and 20/2012.*

Table 18. ASPI Maximum Amount – 2013

| Year | Wage Threshold | Benefit Maximum Amount |
|------|----------------|------------------------|
| 2013 | 1,180 | 1,152.90 |

Source: *INPS Circular Letter 14/2013.*

- **Benefit Amount**

The benefit amount and the duration of the treatment are different according to scheme in place and the age of the employee as detailed in Table 20 and 21. The benefit is taxable.

Table 19. Ordinary Unemployment Benefit Amount – 2009-2012

| Age | Duration | Benefit Amount (% of average gross wage of last three months) |
|------------|-----------|---|
| Aged <50 | 8 months | 60% for months 1 to 6, 50% months 7 to 8 |
| Aged >= 50 | 12 months | 60% for months 1 to 6, 50% months 7 to 8 and 40% for the following months |

Table 20. ASPI Amount – 2013

| Age | Duration | Benefit Amount (% of average gross wage of last two years) |
|-----------|-----------|---|
| Aged <50 | 8 months | 75% for months 1 to 6 if gross wage ≤ the wage threshold |
| Aged ≥ 50 | 12 months | 75% + 25% (wage – wage threshold) for months 1 to 6 if gross wage > the wage threshold After the first 6 months, the benefit is reduced by 15% |

- **EUROMOD notes**

By default the simulation of unemployment benefit is switched off in the spine. The implemented simulation takes into account the previous earnings and the number of months spent in work which need to be specified in the respective variables by the user.

2.2.4 Social Pension and Social Allowance to individuals older than 65 (*Assegno sociale per ultrasessantacinquenni – poamt_s*)

- **Definitions**

These are a purely social assistance benefits dedicated to old indigent Italian citizens, or other EU citizens living in Italy.

- **Eligibility Conditions**

Eligible individuals are at least 65 years old. They must be Italian citizens living in Italy or (starting from the 11th April 2007) other EU citizens who have been living in Italy for at least three months or (starting from the 1st of January 2009) other EU citizens who have been living in Italy consecutively and legally for at least ten years.

- **Income Test**

The sum of all incomes of the individual (non married) or the cumulated incomes of the two spouses, except:

- one third of the pension computed with the pay-as-you-go contributive system,
- the arrears subject to separate taxation,
- the redundancy benefit,
- any kind of family allowance,
- the cadastral value of the main residence,
- the social allowance,
- the accompanying allowance,
- the allowances related to some sort of disability
- the war pension

cannot exceed some maximum amounts, summarized in the following tables

- **Benefit Amount**

Eligible individuals receive the total benefit amount only if their income is zero. Otherwise, they receive the difference between the benefit amount and their income. No benefit is due if the income exceeds the fixed thresholds. The amount due is subject to a means-tested monthly increase (*maggiorazione*), which is higher for eligible individuals aged ≥70. On top of the

means-tested monthly increase, another increase (*incremento delle maggiorazioni*) is granted when specific income, age and contributory conditions apply, in order to guarantee a minimum monthly income.

Income test and Benefit amount for Social Allowance for elderly

| Year | Non married | | | Married | |
|-------------|--------------------|----------------------|-------------|-----------------------|--|
| 2009 | Zero | 333.11 | Zero | 333.11 | |
| | > 4.330.43 | Zero | > 9.648.08 | Zero | |
| | < 4.330.43 | (4.330.43 – RP) / 13 | < 9.648.08 | (9.648.08 - RC) / 13 | |
| 2010 | Zero | 411.53 | Zero | 411.53 | |
| | > 5.349.89 | Zero | >10.699.78 | Zero | |
| | < 5.349.89 | (5.349.89-RP) / 13 | <10.699.78 | (10.699.78 – RC) / 13 | |
| 2011 | Zero | 418.12 | Zero | 418.12 | |
| | > 5.435.56 | Zero | > 10.871.12 | Zero | |
| | < 5.435.56 | (5.435.56 – RP) / 13 | < 10.871.12 | (10.871.12 - RC) / 13 | |
| 2012 | Zero | 429.00 | Zero | 429.00 | |
| | > 5.577.00 | Zero | > 11.154.00 | Zero | |
| | < 5.577.00 | (5.577.00 – RP) / 13 | < 11.154.00 | (11.154.00 - RC) / 13 | |
| 2013 | Zero | 442.30 | Zero | 442.30 | |
| | > 5,749.90 | Zero | > 11,499.80 | Zero | |
| | < 5,749.90 | (5,749.90 – RP)/13 | < 11,499.80 | (11,499.80 – RC)/13 | |

Source: *INPS Rinnovo “year” - Tabelle*

Annual increased amount for Social Allowance for elderly (Maggiorazione)

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|------|--------|--------|--------|--------|--------|
| >=65 | 185.59 | 185.88 | 186.67 | 187.97 | 189.57 |
| >=70 | 185.59 | 185.88 | 186.67 | 187.97 | 189.57 |

Source: *INPS Rinnovo “year” - Tabelle*

2.3 Social contributions

The incidence of social contributions on earned income is different according to: (i) the source of income (dependent, self-employment); (ii) the sector of activity (manufacturing, building, mining, publishing, public administration, handcrafting, agriculture, banking and insurance, services, cooperative sector, broadcasting); (iii) the number of persons working in the organization; (iv) the occupational status (executives, white collars, blue collars).

Due to lack of data, we simulate a simplified version of the social contribution system, by applying to all dependent workers the rates of the Industrial Sector with more than 50 employees, discriminating between blue and white collars. As for the self-employed workers we differentiate only between craftsmen, tradesmen, and farmers.

Table 21. List of different sectors to determine the contributory rates

| | |
|--------------------------------|--|
| General Industry | Radio and Television Industries and Show business |
| <=15 employees | Industrial Sector |
| between 15 and 90 employees | Radio and television private industries |
| More than 90 employees | Not employed artists |
| Building Industry | Bingo Arcades |
| <=15 employees | Developing, Print and Distribution <15 |
| Between 15 and 50 employees | Developing, Print and Distribution >15 & <50 |
| More than 50 employees | Developing, Print and Distribution >50 |
| Stone Industry | Trading Sector |
| <=15 employees | Commerce - Tertiary |
| between 15 and 50 | Commerce <=50 |
| More than 50 | Commerce > 50, <200 |
| Handicraft | Commerce >200 |
| Craftsman | Temporary job placement Agencies |
| Induced craftsman | Travel Agencies <=50 |
| Building craftsman | Travel Agencies >50 |
| Induced building craftsman | Cleaning Agencies <=15 |
| Stone craftsman | Cleaning Agencies >15 |
| Induced Stone craftsman | Security Services <=15 |
| Agriculture | Security Services >15 |
| Farming | Logistic Services <=50 |
| Farms owned by a tenant farmer | Logistic Services >50 & <200 |
| Cooperative | Logistic Services >200 |
| State Administration | Firm Refectories <15 |
| State Administration | Firm Refectories >15 |
| Secular chaplain | Special Funds |
| Regular chaplain | Road haulage contractors craftsmen |
| Prison Inmate | Road haulage contractors industry |
| Work yards and reforestation | Road haulage regional or governative |
| State Schools | Contractors |
| Arts and Professions | Flight Fund |
| Political Parties and Unions | Banks and Insurance |
| Bingo Arcades | Regions, Provinces, Municipalities |
| Fast Mail Curriers | Cooperatives |
| Tertiary | Personnel abroad |
| | Apprentices |

The average contribution rate is about 40%: part is due by the employer, part by the employee. The National Institute of Social Security (*INPS*) collects contributions for the following insurances:

- Invalidity, Old Age and Survivors (*Invalidità, Vecchiaia, Superstiti*), which is the contribution valid for the pension
- Unemployment (*Disoccupazione*);
- Dependency benefit Fund (*Cassa Unica Assegni Familiari*);
- Redundancy Fund (*Cassa Integrazione Guadagni Straordinaria*);
- Procedure for mobility and Collective Dismissals (*Mobilità*);
- Sickness and Maternity Benefit (*Malattia e Maternità*);
- Severance Pay (TFR).

Contribution is proportional to the gross wage defined as compensation in money and in kind. The following are excluded: the amounts received as Severance Pay, as encouragement to leave, as indemnity, as insurance premium, family benefits, the amounts received as scholarships, childcare and summer camps for family members, fringe benefits within €258.23, travelling expenses within given thresholds.

The tax base for social contributions (*limite di retribuzione per l'accredito dei contributi*) cannot be lower than a given threshold fixed by the Law. On the other hand, there is also a threshold above which contribution is no more due (*massimale annuo della base contributiva*) and it applies to workers who started their working activity after the 1st of January 1996.

Table 22. Monthly Minimum and Maximum tax base for social contribution: Employees

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----|----------|----------|----------|---------|---------|
| Min | 793.42 | 798.97 | 811.81 | 832.91 | 857.90 |
| Max | 7,625.53 | 7,678.92 | 7,801.83 | 8012.41 | 8252.83 |

Source: INPS: circular letters n. 16 (2-2-2010), n. 11 (1-2-2008), n.34 (6-2-2007), n.18 (8-2-2006), n.21 (4-2-2005). Additional source: INPS: circular letters n. 14/2009, 16/2010, 24/2011, 21/2012 and 22/2013.

As we showed in Table 21, the Italian contributory system is very fragmented and we do not simulate the rates for all the possible combinations, considering that they differ very little and we do not have enough information in the data. In the following two paragraphs we report the rates of the Industrial Sector with more than 50 employees, discriminating between blue and white collars. which are simulated in EUROMOD.

2.3.1 Employer social insurance contributions (*tscerpi_s, tscerui_s, tscersv_s, tscerfa_s, tscersf_s, tscersi_s, tscertj_s*)

The following table reports the employer social contributions for blue collars (b.c.) and white collars (w.c.) in the four considered years, related to industrial firms with more than 50 employees.

Table 23. Employer social contribution rates (%), industrial firms with more than 50 employees

| | 2009-13 | |
|------------------------|---------|-------|
| | b.c. | w.c. |
| IVS | 23.81 | 23.81 |
| Unemployment | 1.91 | 1.91 |
| T.F.R. | 0.2 | 0.2 |
| Family allowances | 0.68 | 0.68 |
| Redundancy Fund | 2.80 | 2.80 |
| Sickness and Maternity | 2.68 | 0.46 |

Source: INPS (<http://www.inps.it/docallegati/mig/doc/Professionista/aliquote/aliquote.htm>). Annex. Notes: b.c.: blue collars; w.c.: white collars

2.3.2 Employee social insurance contributions (*tscepi_s, tsceesf_s, tsceetj_s*)

The following table reports the employee social contributions for blue collars (b.c.) and white collars (w.c.) in the four considered years, related to industrial firms with more than 50 employees.

Table 24. Employee social contributions, rates (in %)

| | 2009-13 | |
|-----------------|---------|------|
| | b.c. | w.c. |
| IVS | 9.19 | 9.19 |
| Redundancy Fund | 0.30 | 0.30 |

Source: INPS (<http://www.inps.it/docallegati/mig/doc/Professionista/aliquote/aliquote.htm>). Notes: b.c.: blue collars; w.c.: white collars.

Within the same policy sheet of employer and employee social insurance contributions we simulate the contributions related to temporary job (*co.co.co.*) as well.

Table 25. Temporary job (*co.co.co.*) Social contributions, Maximum tax base and rates (in %)

| | maximum | employer | employee |
|------|----------------|-----------------|-----------------|
| 2010 | 92,147 | 17.814 | 8.907 |
| 2011 | 93,962 | 17.814 | 8.907 |
| 2012 | 96,149 | 18.48 | 9.24 |
| 2013 | 99,034 | 18.48 | 9.24 |

Source: INPS: circular letters n. 27/2013,

In the recent years the increases in the rates are part of the austerity measures package (see Avram et al. 2013).

2.3.3 Self-employed social contributions

In the same way as the subordinate employment social contributions, self-employed social contribution provides a minimum and a maximum level of income, below and above which contribution is no more due. In the following table we summarize the minimum income (*minimale*) and the maximum income (*massimale*) for computing contribution for craftsman and retailers.

Table 26. Monthly Minimum and Maximum wages for social contribution: Craftsmen and Retailers

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----|-------------|-------------|-------------|-------------|-------------|
| Min | 1,186.67 | 1,194.5 | 1,212.67 | 1,244.17 | 1,279.75 |
| Max | 5,842.92 | 5,883.92 | 5,978.08 | 6,139.42 | 6,323.58 |

Source: INPS Circular Letters 16/2009. 14/2010. 34/2011,14/2012 and 24/2013

Note: Minimum and Maximum wages are defined in yearly terms: the figure shows the official amounts divided by 12.

For farmers, instead, the criterion for determining the contributory amount is based on the definition of a *normal income*, which is defined by law each year and differentiated for the age of the worker (younger or older than 21 or older than 65), the location of the land (normal, mountain or depressed areas) and the type of activity. We report in the following table, as an example, the *normal incomes* for farmers older than 21 operating in normal areas.

Table 27. Normal annual incomes: Farmers (> 21, normal areas)

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------|-------------|-------------|-------------|-------------|-------------|
| Activity 1 | 2420.69 | 2464.08 | 2641.63 | 2641.63 | 2700.81 |
| Activity 2 | 2937.72 | 2995.57 | 3230.74 | 3230.74 | 3308.62 |
| Activity 3 | 3454.75 | 3527.06 | 3819.86 | 3819.86 | 3916.43 |
| Activity 4 | 3971.79 | 4058.56 | 4408.98 | 4408.98 | 4524.23 |

Source: INPS: circular letters n. 84/2009. 65/2010. 76/2011. 75/2012.95/2013

Note that we simulate the benefit for farmers on the basis of their *actual* (declared) income, since from the data we have it is impossible to recover all the information needed to find the *normal income*.

The following table reports the self-employed social contributions levied on self-employment income (*yse*) for craftsman (*crm*), retailers (*ret*) and farmers (*agr*) in the four considered years:

Table 28. Self-employed social contributions, rates (in %)

| | 2009-2011 | | | 2012 | | | 2013 | | |
|-----------------------|-----------|-------|-------|-------|-------|-------|-------|-------|------|
| | crm | ret | agr | crm | ret | agr | crm | ret | agr |
| IVS (%) | 20.00 | 20.09 | 20.30 | 21.30 | 21.39 | 21.60 | 21.75 | 21.84 | 22.0 |
| Maternity (€per year) | 7.44 | 7.44 | 7.49 | 7.44 | 7.44 | 7.49 | 7.44 | 7.44 | 7.49 |

Source: MEF (2009). INPS circular letter n.20/2010 and 65/2010. 34/2011 and 76/2011. 14/2012 and 25/2012.24/2013

Note: *crm*: craftsman. *ret*: retailers. *agr*: farmers.

The increases in 2012 and 2013 are part of the austerity measures package (see Avram et al. 2013).

2.4 Personal income tax

The main tax simulated for Italy is the Personal Income Tax (*IRPEF - Imposta sul Reddito delle Persone Fisiche, tinna_s*). All residents are responsible to pay IRPEF on their income (and non resident for income produced in Italy).

2.4.1 Tax unit

Personal Income Tax is individual. However, the dimension and the composition of the family are taken into account by mean of tax allowances and tax credits due to the presence of “fiscal dependent” persons. In order for a family member to be considered *dependent* she has to live within the same residence as the reference individual and her income cannot exceed 2.840,51 euro (*ils_origrepy*). This income is defined as all incomes which are included in the personal income tax base and also incomes received by international organizations, consular and diplomatic representatives, the Holy See and organizations directly controlled by it.

2.4.2 Exemptions

The following income components are not included in the concept of gross income:

- Incomes subject to withholding taxation (mainly income from financial assets (*yiy*), such as capital gains and dividends (*yiydv*));
- Income subject to separate taxation as, for example, salary arrears (*yempv*), pensions paid out in form of capital (*ypp0I*), and severance pay (*yunsv*);
- Incomes free of income tax as, for example, school benefits (*bed*), some disability pensions (*pdi*), social allowance for elderly (*poamt*), family allowances (*bfacpxc_s*, *bfalp_s*, *bfacpwc_s*), child benefits (*bchot*), fringe benefits only if below 258.23 euro (*kfb*).

2.4.3 Tax allowances

In 2007 the tax allowances system has been totally renewed, since numerous tax allowances have been replaced by a set of tax credits. The following tax allowances remain the same over the four fiscal years considered (2009-2012).

The main tax allowances are social contribution due by employed (*ils_sicee*) and self-employed (*ils_sicse*) individuals and contribution to private pension plans (*tintapv_s*). With respect to the contribution to private pension plans, tax deduction cannot exceed the 12 % of individual total

income (*il_taxableY*) and in any case it cannot be greater than 5,164.54 euro per year. From 2007, the limit of 12% of taxable income is abolished.

Another important tax allowance is the tax deduction for the main residence equal to its cadastral income (*amriv*).

Other tax allowances are related to disabled persons health expenses, grants to religious institutions, expenses for domestic help (*tintaox_s*). Due to lack of information in the data, the amount of these allowances is given by a coefficient (defined by income classes and calibrated on the aggregate information collected from the Ministry of Finance) multiplied by individual income.

2.4.4 Tax base

The tax base is defined as gross income minus the various exemptions outlined above. The gross income is defined as the sum of the following income sources:

- 85% of income from Land and Buildings (*tintbrt_s*): from 2011 a separate taxation on rental income applies at a flat rate equal to 21% (simulated in *tinrt_s*) and, as a consequence the income from Land and Buildings is not included anymore in the tax base for the Personal Income Tax.
- Income from Employment (*yem*) and assimilated incomes as vocational training (*bunst*), redundancy payment (*bunct01*), income from mobility and collective dismissals (*bunct02*), income received by people aged under 15 (*yot*), old age pension (*poa*), survivor pension (*psu*), invalidity pension (*phl*)
- Fringe benefits (*kfb_s*) exceeding 258.23€/per year
- Income from Self-Employment (*yse*) and maternity benefits for self employed people (*bmase*)
- Capital component of private supplementary pensions (assumed to be 70% of total, *ypp02*)
- Cadastral income of main residence (*amriv* – then completely deducted) and other residence (*aobiv*): from 2012 with the introduction of the new Property Tax (*IMU*) the cadastral value of all residences is not included anymore in the tax base for the Personal Income Tax.

2.4.5 Tax schedule

Income taxation is graduated, with progressively higher marginal tax rates applying to higher income brackets. There are five income brackets.

Table 29. Income brackets (2009-2013)

| Income Brackets (Euro per year) | Tax rate (%) |
|--|-------------------------|
| ≤15,000 | 23 |
| 15,000-28,000 | 27 |
| 28,000-55,000 | 38 |
| 55,000-75,000 | 41 |
| ≥75,000 | 43 |

Source: Agenzia delle Entrate

Starting from 2012 there is an additional tax rate of 3% on taxable incomes above 300.000 euros (solidarity contribution – *tinto_s contributo di solidarietà*).

2.4.6 Tax credits

Tax credits are classifiable into 4 classes which apply all along the four fiscal years taken into account. Some of them have been introduced in 2007 to replace the previous scheme of tax allowances.

All tax credits are non-refundable: as a consequence the tax liability cannot be negative.

Tax credits for personal expenses (2009-2013)

It is possible to subtract from the tax liability the 19% of 36 different cases from health expenses to education expenses, to gifts to art or sport institutions, to travel expenses for commuters, and many others. The most important are the following:

- Interests paid on mortgage loans (*xhcmomi*) for the purchase of the main residence, not exceeding 4,000 euro (*tintcmi_s*);
- Health Expenses (for the amount exceeding 129.11 euro), also for the dependent family members, guide dog and expenses for visual, hearing or deambulation aids for disabled persons;
- Life premium and insurance premium against permanent disability, not exceeding 1,291.14 euro;
- Expenses for high and university education;
- Funeral Expenses;
- Donations to non profit organizations;

All the tax credits but *tintcmi_s* are imputed by applying a coefficient calibrated by income classes to get the total amount of tax credits as reported in the aggregate fiscal data).

Tax credits with incentive purposes (2009-2013)

In order to stimulate some consumers' behaviours the following tax credits are allowed:

- For tenants subject to controlled rent contracts (Contratti Convenzionali), 495.80 euro if total income is less than 15,493.71 euro and 247.90 euro if total income is between 15,493.71 and 30,987.41 euro;
- For tenants who are employees and move their main residence closer to their working place, being in a different region and further than 100 Km from the original location, 991.60 euro if total income is less than 15,493.71 euro and 495.80 euro if total income is between 15,493.71 and 30,987.41 euro;
- The 36% (optional at 41% starting from 2006, not simulated) of the expenses for the refurbishment of buildings, not exceeding 48,000 euro (*tintc01_s*);
- The 55% of the expenses for energy conservation's interventions.

Within this list, due to lack of data we simulate only the tax credit for the expenses for the refurbishment of buildings (36%), by applying a calibration coefficient which takes into account the possibility of claiming this tax credit in 5 or 10 years.

Tax credits for income source (2009-2013)

The tax credits for income source apply in a different way to different classes of taxpayers: employees (*tintcee_s*), pensioners aged 75 and above, pensioners aged below 75 (*tintcpe_s*) and self-employed workers (*tintcse_s*).

The tax credits define a *no tax area* for the four classes of taxpayers and it is then linearly decreasing in the level of gross income minus the cadastral value of the main residence (*il_taxable_pertc*). At 55,000 euro the tax credit is zero.

If more than one source of income is received, the tax credits apply in proportion to the period the individual received that source of income.

Table 30. Tax credits for income source, amounts per year (2009- 2013)

| | |
|--|--|
| Employment income and assimilated (<i>il_emp</i>) | |
| Until 8,000 | 1,840 |
| 8,001-15,000 | $1,338+502*((15,000- il_taxable_pertc)/7,000)$ |
| 15,001-23,000 | $1,338*((55,000- il_taxable_pertc)/40,000)$ |
| 23,001-24,000 | $1,348*((55,000- il_taxable_pertc)/40,000)$ |
| 24,001-25,000 | $1,358*((55,000- il_taxable_pertc)/40,000)$ |
| 25,001-26,000 | $1,368*((55,000- il_taxable_pertc)/40,000)$ |
| 26,001-27,700 | $1,378*((55,000- il_taxable_pertc)/40,000)$ |
| 27,701-28,000 | $1,363*((55,000- il_taxable_pertc)/40,000)$ |
| 28,001-55,000 | $1,338*((55,000- il_taxable_pertc)/40,000)$ |
| Pensions (<i>il_pensions</i>): pensioners aged below 75 | |
| Until 7,500 | 1,725 |
| 7,501-15,000 | $1,255+470*((15,000- il_taxable_pertc)/7,500)$ |
| 15,001-55,000 | $1,255*((55,000- il_taxable_pertc)/40,000)$ |
| Pensions (<i>il_pensions</i>): pensioners aged 75 and above | |
| Until 7,750 | 1,783 |
| 7,751-15,000 | $1,297+486*((15,000- il_taxable_pertc)/7,250)$ |
| 15,001-55,000 | $1,297 * ((55,000- il_taxable_pertc)/40,000)$ |
| Self-employment income (<i>yse</i>) | |
| Until 4,800 | 1,104 |
| 4,801-55,000 | $1,104 *((55,000-g.i.)/50,200)$ |

Source: Agenzia delle Entrate

The tax credits related to employment income and pensions depends on the number of months in receipt of the given income source. The tax credit for employment income cannot be lower than 1,380€ per year if the individual has a temporary contract (*lap00 = 1*) or lower than 690€ per year otherwise (*lap00 = 0*). The tax credit for pensions cannot be lower than 690€ per year if the individual is aged below 75 years or lower than 713€ per year if the individual is aged 75 years or above.

They cannot be summed up, and the individual can choose the most profitable one.

Tax credits for dependent family members (2009-2013)

The tax credits for dependent family members are different for the spouse, the children and other family members. Moreover, the tax credit changes with the children age (more or less than three years old) and the number of the children.

A family member is defined as *dependent* if she lives with the referent person and does not have more than 2,840.51 euro of gross income (*ils_origrepy*). The tax credit is decreasing in individual gross income (*il_taxable_pertc*) and it is computed according to the following table:

Table 31. Tax credits for dependent family members (amounts per year)

| | |
|--|---|
| Spouse | |
| Up to 15,000 | $800 - (110 * (il_taxable_perc / 15,000))$ |
| 15,001 – 29,000 | 690 |
| 29,001 – 29,200 | 700 |
| 29,201 – 34,700 | 710 |
| 34,701 – 35,000 | 720 |
| 35,001 – 35,100 | 710 |
| 35,101 – 35,200 | 700 |
| 35,201 – 40,000 | 690 |
| 40,001 – 80,000 | $690 * ((80,000 - il_taxable_perc) / 40,000)$ |
| Child < 3 years old (potential tax credit) | |
| Child | 900 |
| Child >=3 years old (potential tax credit) | |
| Child | 800 |
| Others | |
| $(750 * \text{number of dependent persons}) * ((80,000 - il_taxable_perc) / 80,000)$ | |

Source: Agenzia delle Entrate

The potential tax credit for dependent child is increased by 200 euro starting from the first child if there are more than three children.

To compute the final tax credit is necessary to calculate an “increment” given by the number of dependent children minus 1 times 15,000 (*sin09_s*).

Then we need to find the tax credit coefficient, by applying the following formula:

$$(95,000 + \text{Increment (i.e. } sin09_s) - \text{Total income (i.e. } il_taxable_perc)) / (95,000 + \text{Increment (i.e. } sin09_s))$$

The final amount of the tax credit for dependent children (*tintch_s*) is equal to 0 when the tax credit coefficient is less than or equal to 0 (or equal or larger than 1). If the tax credit coefficient is between 0 and 1, the Tax credit for dependent children is equal to the potential tax credit times the tax credit coefficient

Parents can split the potential tax allowance for dependent children in any proportion (in the simulation the total tax credit is assigned to the parent with higher income in first instance and if she cannot use the full amount of the tax credit the residual is attributed to the partner).

If the head of tax unit is a lone parent and the tax credit for the potential spouse is greater than the tax credit for the oldest child, the difference is given as additional tax credit for lone parent (*tintclp_s*)

Tax credits for families with at least four children (2009-2013)

Moreover, an additional tax credit of 1,200 euro is given to families with at least four children (and for the whole year, regardless on when the fourth child was born).

2.5 Other taxes

2.5.1 Personal Income Regional additional tax (Addizionale Regionale all'IRPEF)

The regional additional tax (*Addizionale Regionale*) is computed on the same tax base (*il_taxable_regtax*) as the personal income tax (*IRPEF*). The tax rate is 0.9% but each region can increase it of at most another 0.5%. In the following table we provide the tax rates for each region in the four considered years.

The latest increases (2011, 2012 and 2013) are part of the austerity measures package (see Avram et al. 2013).

Taxation is generally graduated, with progressively higher marginal tax rates applying to higher income brackets except where the income brackets are asterisked (*): in that case the tax rate applies to the whole income according to the relevant classes. The simulated tax is stored in the variable *tinrg_s*. Note that the regional additional tax is positive only if the national personal income tax (after tax credits, i.e. *tinna_s*) is positive.

Table 32. Personal income regional additional tax rates, by region and year

| Var. drgn2 | Region | 2009 | | 2010 | | 2011 | | 2012 | | 2013 | |
|---------------|-----------------------|------------------|---------------|------------------------|---------------|------------------|---------------|-----------------|---------------|-----------------|---------------|
| | | Income Brackets | Tax rate % | Income Brackets | Tax rate % | Income Brackets | Tax rate % | Income Brackets | Tax rate % | Income Brackets | Tax rate % |
| 1 | Piemonte | ≤15000 | 0.9 | ≤15000 | 0.9 | ≤15000 | 1.23 | ≤15000 | 1.23 | ≤15000 | 1.69 |
| | | 15000-22000* | 1.2 | 15000-22000* | 1.2 | 15000-22000* | 1.53 | 15000-22000* | 1.53 | 15000-28000 | 1.7 |
| | | ≥22000* | 1.4 | ≥22000* | 1.4 | ≥22000* | 1.73 | ≥22000* | 1.73 | 28000-55000 | 1.71 |
| | | | | | | | | | | 55000-75000 | 1.72 |
| | | | | | | | | | >75000 | 1.73 | |
| 2 | Valle d'Aosta | | 0.9 | | 0.9 | | 1.23 | | 1.23 | | 1.23 |
| 3 | Lombardia | ≤15493.71 | 0.9 | ≤15493.71 | 0.9 | ≤15493.71 | 1.23 | ≤15000 | 1.23 | ≤15000 | 1.23 |
| | | 15493.7-30987.41 | 1.3 | 15493.7-30987.41 | 1.3 | 15493.7-30987.41 | 1.63 | 15000-28000 | 1.58 | 15000-28000 | 1.58 |
| | | ≥30987.4 | 1.4 | ≥30987.4 | 1.4 | ≥30987.4 | 1.73 | ≥28000 | 1.73 | >28000 | 1.73 |
| 4 | Bolzano | | 0.9 | ≤12500 | 0 | ≤15000 | 0 | ≤15000 | 0 | ≤15000 | 0 |
| | | | | ≤25000 (with children) | 0 | 15000-70000* | 1.23** | 15000-70000* | 1.23** | 15000-70000* | 1.23** |
| | | | | | 0.9 | ≥70000* | 1.23 | ≥70000* | 1.23 | ≥70000* | 1.23 |
| 5 | Trento | | 0.9 | | 0.9 | | 1.23 | | 1.23 | | 1.23 |
| 6 | Veneto | ≤29500 | 0.9 | | 0.9 | | 1.23 | | 1.23 | | 1.23 |
| | | ≥29500* | 1.4 | | | | | | | | |
| 7 | Friuli Venezia Giulia | | 0.9 | | 0.9 | | 1.23 | | 1.23 | <15000 | 0.7 |
| | | | | | | | | | | >15000* | 1.23 |
| 8 | Liguria | ≤30000 | 0.9 | ≤30.000 | 0.9 | ≤30000 | 1.23 | ≤20000 | 1.23 | ≤20000 | 1.23 |
| | | ≥30000* | 1.4 | ≥30.000* | 1.4 | ≥30000* | 1.73*** | ≥20000* | 1.73*** | ≥20000* | 1.73*** |
| 9 | Emila Romagna | ≤15000 | 1.1 | ≤15000 | 1.1 | ≤15000 | 1.43 | ≤15000 | 1.43 | ≤15000 | 1.43 |
| | | 15000-20000* | 1.2 | 15000-20000* | 1.2 | 15000-20000* | 1.53 | 15000-20000* | 1.53 | 15000- | 1.53 |

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| | | | | | | | | | | | |
|----|------------|---------------|-----|---------------|-----|---------------|------|---------------|------|--------------|------|
| | | 20000-25000* | 1.3 | 20000-25000* | 1.3 | 20000-25000* | 1.63 | 20000-25000* | 1.63 | 20000* | |
| | | ≥25000* | 1.4 | ≥25000* | 1.4 | ≥25000* | 1.73 | ≥25000* | 1.73 | 20000-25000* | 1.63 |
| | | | | | | | | | | ≥25000* | 1.73 |
| 10 | Toscana | | 0.9 | | 0.9 | | 1.23 | ≤75000 | 1.23 | ≤75000 | 1.23 |
| | | | | | | | | ≥75000 | 1.73 | ≥75000 | 1.73 |
| 11 | Umbria | ≤15000 | 0.9 | ≤15000 | 0.9 | ≤15000 | 1.23 | ≤15000 | 1.23 | ≤15000 | 1.23 |
| | | ≥15000* | 1.1 | ≥15000* | 1.1 | ≥15000* | 1.43 | ≥15000* | 1.43 | ≥15000* | 1.43 |
| 12 | Marche | ≤15500 | 0.9 | ≤15500 | 0.9 | ≤15500 | 1.23 | ≤15500 | 1.23 | <15000 | 1.23 |
| | | | | | | | | | | 15000-28000 | 1.53 |
| | | | | | | | | | | 28000-55000 | 1.70 |
| | | | | | | | | | | 55000-75000 | 1.72 |
| | | 15500 - 31000 | 1.2 | 15500 - 31000 | 1.2 | 15500 - 31000 | 1.53 | 15500 - 31000 | 1.53 | 75000 | 1.73 |
| | | ≥31.000 | 1.4 | ≥31.000 | 1.4 | ≥31.000 | 1.73 | ≥31.000 | 1.73 | | |
| 13 | Lazio | | 1.4 | | 1.7 | | 1.73 | | 1.73 | | 1.73 |
| 14 | Abruzzo | | 1.4 | | 1.4 | | 1.73 | | 1.73 | | 1.73 |
| 15 | Molise | | 1.4 | | 1.7 | | 2.03 | | 2.03 | | 2.03 |
| 16 | Campania | | 1.4 | | 1.7 | | 2.03 | | 2.03 | | 2.03 |
| 17 | Puglia | ≤28000 | 0.9 | | 0.9 | ≤28000 | 1.53 | ≤28000 | 1.53 | <15000 | 1.33 |
| | | ≥28000* | 1.4 | | | ≥28000 | 1.73 | ≥28000 | 1.73 | 15000-28000 | 1.43 |
| | | | | | | | | | | >28000 | 1.73 |
| 18 | Basilicata | | 0.9 | | 0.9 | | 1.23 | | 1.23 | | 1.23 |
| 19 | Calabria | | 1.4 | | 1.7 | | 2.03 | | 2.03 | | 2.03 |
| 20 | Sardegna | | 0.9 | | 0.9 | | 1.23 | | 1.23 | | 1.23 |
| 21 | Sicilia | | 1.4 | | 1.4 | | 1.73 | | 1.73 | | 1.73 |

Source: Agenzia delle Entrate, various years

* Tax rate applied on the total taxable income if taxable income within the range

** A tax credit of 252 euros is allowed for each dependent child.

*** If more than 4 children, tax rate equal to 1.23%

2.5.2 Taxation on Capital Income

Capital income is mainly subject to separate taxation. The separate taxation regime is articulated into two different tax rates shown in the table below. Long-term savings is encouraged by applying the lower rate.

In addition private pensions paid out in form of capital, arrears and severance pay are subject to separate taxation as well.

In the 2011 a reform of the taxation of capital incomes changed the tax rates levied on the Interests on bank and postal accounts (from 27% to 20%) and on the Interests on long-term bonds and dividends (from 12.5% to 20%).

| Source of income (variable name) | Rates (%) | |
|--|-----------|-----------|
| | 2009-2010 | 2011-2013 |
| Interests on bank and postal accounts (<i>yyitdp</i>) | 27.0 | 20.0 |
| Interests on State bonds and Postal Bonds (<i>yyitsb</i>) | 12.5 | 12.5 |
| Interests on long-term bonds - more than 18 months (<i>yyitob</i>) | 12.5 | 20.0 |
| Dividends (<i>yydv</i>) | 12.5 | 20.0 |
| Interests on Severity Benefit Funds and Private pensions Funds (Not simulated) | 11.0 | 11.0 |
| Private pensions paid out in form of capital (<i>ypp01</i>) | 26.0 | 26.0 |
| Arrears (<i>yempv</i>) and severance pay (<i>yunsv</i>) | 26.0 | 26.0 |

Source: Bosi Guerra. various year

2.5.3 Property tax

Starting from fiscal year 2012, the Property Tax has been redesigned. The new tax is the IMU – *Imposta Municipale Propria*. The new tax is due by the same subjects as ICI.

The tax base for buildings registered at the cadastre is the cadastral value (*amriv* and *aobiv*, for main residence and other buildings respectively) raised by 5% and multiplied by a coefficient equal to 160.

Tax rates are different according to the type of building and municipalities can modify them. The baseline rates are: 0.4% for the main residence (*tprmr_s*); 0.76% for other buildings (*tprob_s*). In the case of main residences there is a deduction of 200 euro plus 50 euros for each dependent children aged 26 or less living in the household.

In 2009-2011, ICI is simulated (*tprob_s*) on the cadastral value of other buildings (raised by 5% and multiplied by a coefficient equal to 100) with an average tax rate equal to 0.64%.

In 2013 the IMU on the main residence has been abolished.

2.5.4 Personal income tax on rental income

Starting from fiscal year 2011, rental incomes can be subject to a withholding tax rate equal to 21% instead of being part of the taxable income (with an exemption of 15% of total rental income). The choice is up to the tax payer. Given that the new tax (“*cedolare secca*”) is more

convenient for most of the tax payers, in EUROMOD all rental incomes are assumed to be taxed with this withholding tax (*tinrt_s*)

3. DATA

3.1 General description

The Italian database is based on the national version (IT-SILC) of the European Union Statistics on Income and Living Conditions (EU-SILC). This is a rotating panel survey (4 rotational groups), representative of the Italian population in private households. The survey takes place in the second half of the year following the income reference year.

The unit of assessment is the sociological household, defined as the persons living at the same address.

The User Data Base on which the EUROMOD database is based upon (ITSILC XUDB 2010 - 1 version December 2011) is delivered by the Italian Institute of Statistics (ISTAT). More information on technical issues concerning the Italian SILC 2010 can be found in the Intermediate Quality Reports provided by the Italian Institute of Statistics and Eurostat.

Table 34. EUROMOD database description

| | Year 2009 (income reference period) |
|-------------------------|--|
| EUROMOD database | IT_2010_a6 |
| Original name | ITSILC XUDB 2010 – December 2011 |
| Provider | ISTAT |
| Year of collection | 2010 |
| Period of collection | 2010 Q1 – 2010 Q4 (most in 2010 Q4) |
| Income reference period | 2009 |
| Sampling | 2-stage sampling; with stratification of sampling units (no clustering of sampling units) |
| Unit of assessment | Italian household defined as cohabitants related through marriage, kinship, affinity, adoption, patronage and affection. |
| Coverage | Private households |
| Sample size | 47,420 individuals 19,147 households |
| Response rate | 85.50% |

3.1.1 Weights

The weights provided in the Italian SILC are household weights, imputed for each person in the household. The weights were developed in four steps. The initial weights are the inverse of the inclusion probability of each household. The second step contains a slight correction for non-response both at household and individual level. Later, correction for over/under representation of certain population groups is implemented through calibration taking account of NUTS I-level and NUTS II-level, age, sex, amount of national and non national population. Finally, an integrative calibration is performed to make sure that members in the same household all receive the same weight. The following Table presents some basic descriptive statistics of the Grossing-up weights.

Table 35. Descriptive Statistics of the Grossing-up weights

| IT_2010_a6 | |
|--------------|---------|
| Number | 47,420 |
| Mean | 1265.74 |
| Median | 1058.26 |
| Minimum | 81.11 |
| Maximum | 6846.19 |
| Max/Min | 84.41 |
| Decile 1 | 317.71 |
| Decile 9 | 2481.66 |
| Dec 9 / Dec1 | 7.82 |

3.1.2 Item non-response and under-reporting

An overview of item non-response is provided in the Italian SILC Quality Report.

Concerning under-reporting, the Italian SILC Quality Report makes comparisons between some income target variables and the number of persons who receive income from each 'income component', with external sources. In particular, as external benchmarks, they use data from National Accounts and Labour Force Survey by ISTAT, Fiscal Agencies of the Ministry of the Economy and Pensions Register by INPS (National Institute for Social Security). The checked variables are: (i) Employee cash or near cash income (PY010N); (ii) a variable computed as the sum of Old-age benefits (PY100N), Survival benefits (PY110N) and Disability benefits (PY130N). No appreciable differences are found.

3.2 Data adjustment

Adjustments to variables are kept to a minimum. There is some minor data cleaning that is done to make sure that the relationships of individuals within households, are coherent (for example, that both partners identify each other correctly, to rule out inconsistencies in family structure).

3.3 Imputations and assumptions

3.3.1 Time period

All income information in EU-SILC 2010 (as well as in IT-SILC) refers to the fiscal year 2009 (January – December). Monetary amounts in the original variables are normally expressed in yearly totals, unless otherwise is indicated. For most income variables, information is included on how many months a certain income or benefit was received.

For the construction of the EUROMOD database from the Italian SILC, all monetary amounts are re-scaled to “an average month”, dividing yearly amount by 12.

In the EUROMOD database, the information refers as much as possible to the income reference period (i.e. 2009). Different sources of information available in EU-SILC are combined in order to ensure a consistent picture with regard to income sources and non-monetary information such as labour market and socio-economic characteristics. In order of preference:

- Direct information from EU-SILC referring to the income reference period (e.g. monthly labour market information) is being used where possible.
- In addition, information on the income reference period is derived from the current reference period (e.g. education activity, labour market activities).
- If no alternative is available, the current value is taken as the best proxy for the value during the income reference period (e.g. hours usually worked per week)

In this way, we approximate best the general consistency of the personal and household characteristics with the incomes that are reported.

Moreover, all children born after 31 December 2009 are dropped from the dataset.

3.3.2 Gross incomes

Although original data provide both net and gross incomes, we use only net value and reconstruct gross incomes, according to the tax rules in place in 2009, via a microsimulation procedure built upon TABELITA, a microsimulation models developed and maintained at Econpubblica (Ceriani, Fiorio and Gigliarano, 2013).

Because tax evasion is prevalent in particular among self-employed, self-employment income recorded in the survey has been split in two components, assuming that only part of the total income has been declared to the tax authority and then grossed up. A calibration factor has been applied in order to obtain an aggregate amount of the gross self-employment income corresponding to that reported in fiscal data. The user can decide whether running EUROMOD considering such a correction for tax evasion or not (sheet *TCA_it*).

3.3.3 Other imputed variables

Due to lack of information in the IT-SILC 2010 data, the variables *amriv* and *aobiv* (cadastral value of main and secondary residences, respectively) have been imputed by a statistical matching using more detailed information contained in the Survey of Household Income and Wealth released by Bank of Italy. For more details see Ceriani, Fiorio and Gigliarano (2013).

3.4 Updating

The factors that are used to update monetary variables from the mid-point of the data year (2009) to mid-point of simulation years until 2013 are shown in the following table.

No other updating adjustments are employed. Thus the distribution of characteristics (such as employment status and demographic variables) as well as the distribution of each non simulated income source remain as they were in 2009.

It is important to note that, as part of the austerity measures package (see Avram et al. 2013) the public salaries and pensions (above three times the minimum level) are not indexed any more (from 2011 on).

Table 36. Updating factors

| Income Source | 2009 -2010 | 2009 -2011 | 2009 -2012 | 2009 -2013 | Source / comments |
|--|---------------|---------------|---------------|---------------|---|
| Default | 1.0183 | 1.0463 | 1.0872 | 1.1010 | EUROSTAT HICPs |
| Employment incomes (<i>yem, yemnt, yempv, yemxp, tpcee, kfb</i>) | | | | | |
| - private sector | 1.0243 | 1.045 | 1.0657 | 1.0817 | |
| - public sector | 1.0133 | 1.0204 | 1.0204 | 1.0204 | |
| Investment income | | | | | |
| - Dividend (<i>yiydv</i>) | 0.4703 | 0.4074 | 0.4233 | 0.4287 | |
| - Bank and Postal Accounts (<i>yiyitdp</i>) | 0.4703 | 0.4074 | 0.4233 | 0.4287 | Bank of Italy Flussi netti delle attività delle famiglie dalla tabella 14.2 "Attività e passività finanziarie delle famiglie" |
| - Long-term bonds (<i>yiyitob</i>) | 0.4703 | 0.4074 | 0.4233 | 0.4287 | |
| - State bonds (<i>yiyitsb</i>) | 0.4703 | 0.4074 | 0.4233 | 0.4287 | |
| Property income (<i>ypr</i>) | 1.0055 | 1.0331 | 1.0735 | 1.0872 | |
| - Rent (<i>yprrt</i>) | 1.0055 | 1.0331 | 1.0735 | 1.0872 | Department of Finances, income from buildings |
| - Rent main residence (<i>yprmr</i>) | 1.0055 | 1.0331 | 1.0735 | 1.0872 | |
| Cadastral value (<i>aobiv, amriv</i>) | 1.0036 | 1.0311 | 1.0714 | 1.0851 | Department of Finances, cadastral value main residence |
| Self employment (<i>yse</i>) | 1.0266 | 1.0548 | 1.096 | 1.1100 | |
| - Declared to tax authority (<i>yseev</i>) | 1.0266 | 1.0548 | 1.096 | 1.1100 | Department of Finances, Self employment income |
| - Non declared (<i>ysenr</i>) | 1.0266 | 1.0548 | 1.096 | 1.1100 | |
| Maternity benefit Self Emp (<i>bmase</i>) | 1.0266 | 1.0548 | 1.096 | 1.1100 | Department of Finances |
| Maternity benefit Lump sum (<i>bmals</i>) | 1.0155 | 1.0429 | 1.0734 | 1.0866 | Istat, FOI |
| Social assistance (<i>bsa</i>) | 0.7337 | 0.3446 | 0.021 | 0.6633 | MEF, Relazione Generale, anni vari, Riparto Fondo Nazionale per le Politiche Sociali |
| Unemployment benefit CIG (<i>bunct01</i>) | 1.0075 | 1.0231 | 1.0507 | 1.0823 | |
| Unemployment benefit mobility (<i>bunct02</i>) | 1.0075 | 1.0231 | 1.0507 | 1.0823 | INPS (Threshold values of Benefits) |
| Unemployment benefit training (<i>bunst</i>) | 1.0075 | 1.0231 | 1.0507 | 1.0823 | |
| Disability pension (<i>pdi</i>) | 1.0369 | 1.0683 | 1.0944 | 1.1197 | INPS, Tabella M1.4 Indennità di Accompagnamento |
| Disability pension – contributory (<i>ppl</i>) | 1.007 | 1.0231 | 1.0498 | 1.0823 | INPS, Tabella M1.4 Importo Mensile |
| Old Age pension (<i>poa</i>) and survivor pension (<i>psu</i>) | | | | | |
| up to €289 | 1.007 | | | | |
| above €289 | 1.0053 | | | | INPS 2010 Rinnovo 2010 - Tabella A2 |
| up to €1373 | | 1.0231 | 1.0507 | 1.0822 | |
| between €1373 and €289 | | 1.0215 | 1.0215 | 1.0215 | |
| above €289 | | 1.0191 | 1.0191 | 1.0191 | |

4. VALIDATION

4.1 Aggregate Validation

In this section we present the validation results from our model. First we compare how well the survey represents aggregate data for the main income sources included in the model and not simulated. This is followed by the tables which show how 2009 income data are updated to match 2010-2013 actual data. After that we present the validation of the simulated instruments: income taxes (and its components), social insurance contributions, benefits (Family Allowance and Social Allowance for elderly). We present figures related to both income aggregates and the numbers of receivers or payers (where available). All the results are obtained correcting the self-

employment income for tax evasion (see above). Section 4.2 includes distributional statistics, such as income deciles, inequality indices and poverty measures within socio-economic groups.

4.1.1 Non simulated incomes

To check how well the Italian SILC, which is the basis also for EU-SILC, represents actual aggregate data, we compare income components (wages and various benefits) between the survey and administrative source (Agenzia delle Entrate, various years). Aggregate amounts from EUROMOD are obtained using the gross incomes reconstructed by the net-to-gross procedure explained above.

Overall the survey matches quite well the administrative sources, with a slight over representation of employment income. The comparison of the number of recipients needs to be done with caution because the unit of analysis in the survey and in the administrative statistics are not always strictly comparable. This is, in particular, the case of property income but also self-employment income because the same individual can have more than one source of self-employment income. On the one hand, we would expect aggregate number of recipients of self-employed income from EUROMOD being smaller than in the administrative source, while we get the opposite. On the other hand, the number of individuals with self-employment income from EUROMOD includes also potential tax evaders who do not declare their income to the tax authority at all. This effect seems to prevail. The EUROMOD correction for tax evasion reduces the amount of self-employment income declared to the tax authorities but not the number of tax payers declaring their income.

Table 37. EUROMOD validation: income sources included and not simulated, 2009

| | Recipients (unit) | | | Amount (unit) | | |
|---|-------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employment income and Unemployment benefits | 23,954,333 | 21,351,982 | 1.12 | 438,872,052,004 | 416,499,533,000 | 1.05 |
| Self-employment income | 7,029,509 | 5,862,768 | 1.20 | 102,484,949,178 | 101,543,237,000 | 1.01 |
| Property income | 26,216,056 | 20,051,161 | 1.31 | 32,636,668,610 | 36,269,890,000 | 0.90 |
| Pensions | 15,845,610 | 15,292,361 | 1.04 | 235,834,335,774 | 223,324,143,000 | 1.06 |

Notes: Property income in EUROMOD is obtained by the sum of rent and cadastral income on main residence and other buildings (imputed due to the lack of info in the original data). Self-employment income corrected for tax evasion. Amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records.

Next we evaluate how well the 2009 income data are updated to match 2010-2013 actual data. Using the uprating factors of monetary values included in the model, we are able to capture quite well the aggregate amounts, with a slight over representation of employment income already observed in the data year. The unchanged socio-economic structure of the data (i.e. we do not apply any re-weighting of the data) could be a serious problem in the representation of the aggregate numbers of recipients, in particular in years subject to important changes in the labour market as those affected by the economic crisis. However, it seems that the figures are not affected by substantial changes over the period, with the exception of self-employment income which results to be overestimated in EUROMOD over the period.

Table 38. EUROMOD validation: income sources included and not simulated, 2010

| | Recipients (unit) | | | Amount (unit) | | |
|---|-------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employment income and Unemployment benefits | 23,954,333 | 21,395,761 | 1.12 | 447,718,080,537 | 418,159,271,000 | 1.07 |
| Self-employment income | 7,029,509 | 5,775,302 | 1.22 | 105,211,042,399 | 102,687,553,000 | 1.02 |
| Property income | 26,216,056 | 20,522,376 | 1.28 | 32,780,584,201 | 37,415,632,000 | 0.88 |
| Pensions | 15,845,610 | 15,235,119 | 1.04 | 237,402,621,063 | 228,200,054,000 | 1.04 |

Notes: Property income in EUROMOD is obtained by the sum of rent and cadastral income on main residence and other buildings (imputed due to the lack of info in the original data). Self-employment income corrected for tax evasion. Amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records.

Table 39. EUROMOD validation: income sources included and not simulated, 2011

| | Recipients (unit) | | | Amount (unit) | | |
|---|-------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employment income and Unemployment benefits | 23,954,333 | 20,951,270 | 1.14 | 455,058,015,590 | 419,383,885,000 | 1.09 |
| Self-employment income | 7,029,509 | 5,778,183 | 1.22 | 108,101,121,453 | 99,610,987,000 | 1.09 |
| Property income | 26,216,056 | 20,996,887 | 1.25 | 33,679,271,408 | 35,000,761,000 | 0.96 |
| Pensions | 15,845,610 | 15,064,435 | 1.05 | 241,079,086,506 | 233,863,552,000 | 1.03 |

Notes: Property income in EUROMOD is obtained by the sum of rent and cadastral income on main residence and other buildings (imputed due to the lack of info in the original data). Self-employment income corrected for tax evasion. Amounts are expressed in euro per year. Sources: Dipartimento delle Finanze, Analysis of Tax Records.

Table 40. EUROMOD validation: income sources included and not simulated, 2012

| | Recipients (unit) | | | Amount (unit) | | |
|---|-------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employment income and Unemployment benefits | 23,954,333 | 21,222,650 | 1.13 | 461,733,138,877 | 425,145,662,000 | 1.09 |
| Self-employment income | 7,029,509 | 5,564,924 | 1.26 | 112,323,500,247 | 100,852,163,000 | 1.11 |
| Property income | 26,216,056 | --- | --- | 34,995,585,140 | 38,544,693,222 | 0.91 |
| Pensions | 15,845,610 | 15,130,975 | 1.05 | 244,263,759,450 | 238,810,186,000 | 1.02 |

Notes: Property income in EUROMOD is obtained by the sum of rent and cadastral income on main residence and other buildings (imputed due to the lack of info in the original data). Self-employment income corrected for tax evasion. Amounts are expressed in euro per year. Sources: Dipartimento delle Finanze, Analysis of Tax Records.

Table 41. EUROMOD validation: income sources included and not simulated, 2013

| | Recipients (unit) | | | Amount (unit) | | |
|---|-------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employment income and Unemployment benefits | 23,954,333 | --- | --- | 467,124,440,383 | --- | --- |
| Self-employment income | 7,029,509 | --- | --- | 113,758,295,130 | --- | --- |
| Property income | 26,216,056 | --- | --- | 35,442,706,689 | --- | --- |
| Pensions | 15,845,610 | --- | --- | 248,018,734,003 | --- | --- |

Notes: Property income in EUROMOD is obtained by the sum of rent and cadastral income on main residence and other buildings (imputed due to the lack of info in the original data). Self-employment income corrected for tax evasion. Amounts are expressed in euro per year. Sources: Dipartimento delle Finanze, Analysis of Tax Records.

4.1.2 Simulated income tax

Income tax revenue (IRPEF) is simulated at about 97-99% level over the different years. The number of tax payers is slightly larger than in administrative sources, but again the caveat about the comparison of the numbers related to taxpayers should be borne in mind.

The validation of each component of the income tax is presented in the tables below.

The imputed deductions and tax credits are calibrated to external statistics in 2009 and lose a bit of precision over the years given that the calibration coefficient (in EUROMOD) is kept constant.

The regional additional income tax is overestimated by 1-3%, probably due to the representation of the taxable income in the survey by regions. Over the years considered, it is important to note the increase, well captured by EUROMOD simulations, in the tax revenue collected by the Regional additional income tax in 2011 due to the increase in the tax rates.

In 2012, the decrease in the number of tax payers with positive taxable income is due to the exclusion from it of the cadastral value related to the main residence (included in taxable income and then completely deducted in the previous years) and other residences (replaced by the new Property tax, see below). However, the caveat about the comparison of the numbers related to taxpayers should be borne in mind.

Due to the reform of the taxes on capital income, the revenue from these taxes decreases in 2012.

The revenue from Property tax refers to the tax on other buildings (“ICI seconda casa”) from 2009 to 2011 and to the tax on the main residence (“IMU prima casa”) and on other buildings (“IMU seconda casa”) in 2012. In 2013 the tax on the main residence (“IMU prima casa”) has been abolished.

Table 42. EUROMOD validation: income taxes, 2009

| | Taxpayers (unit) | | | Revenue (unit) | | |
|--|------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Total taxable income | 43,214,111 | 41,161,581 | 1.05 | 787,852,870,958 | 783,250,652,000 | 1.01 |
| Deduction for main residence | 23,605,071 | 19,701,584 | 1.20 | 11,184,431,213 | 11,184,518,887 | 1.00 |
| Imputed deductions | 2,361,031 | 2,394,058 | 0.99 | 1,130,276,079 | 1,272,648,000 | 0.89 |
| Total deductions | 11,379,582 | 12,907,578 | 0.88 | 22,441,398,997 | 21,548,037,000 | 1.04 |
| Net taxable income | 40,883,500 | 39,885,732 | 1.03 | 772,868,450,792 | 753,943,616,000 | 1.03 |
| Gross tax (IRPEF) | 40,867,418 | 39,023,235 | 1.05 | 203,344,801,367 | 202,615,700,000 | 1.00 |
| Family tax credits | 10,937,339 | 12,618,769 | 0.87 | 12,353,715,716 | 11,379,195,000 | 1.09 |
| Tax credits for income sources | 38,248,302 | 36,447,824 | 1.05 | 45,032,036,055 | 42,155,006,000 | 1.07 |
| Tax credits for mortgage interest (at 19%) | 3,305,107 | 3,811,521 | 0.87 | 1,473,189,373 | 1,266,736,840 | 1.16 |
| Tax credit for health related expenditures | 13,294,566 | 14,172,055 | 0.94 | 2,231,940,362 | 2,408,849,070 | 0.93 |
| Tax credit for charitable givings | 879,317 | 970,501 | 0.91 | 32,999,046 | 36,168,590 | 0.91 |
| Other tax credits | 5,633,030 | 5,943,154 | 0.95 | 1,641,684,448 | 1,691,395,000 | 0.97 |
| Tax credit on life insurance | 6,317,116 | 6,673,418 | 0.95 | 839,735,290 | 828,027,790 | 1.01 |
| Tax credit on funeral expenditures | 372,900 | 423,365 | 0.88 | 103,636,287 | 118,249,350 | 0.88 |
| Tax credit on educational expenditures | 1,728,332 | 2,051,802 | 0.84 | 227,473,279 | 297,751,280 | 0.76 |
| Tax credits on refurbishment (at 36%) | 4,651,033 | 4,844,421 | 0.96 | 2,008,575,146 | 2,008,651,000 | 1.00 |
| Total tax credit | 36,181,399 | 39,058,086 | 0.93 | 65,944,984,999 | 62,311,162,000 | 1.06 |
| Net tax (IRPEF) | 32,749,888 | 31,008,328 | 1.06 | 143,071,556,062 | 146,493,242,000 | 0.98 |
| Regional additional income tax (IRPEF) | 32,749,888 | 30,848,447 | 1.06 | 8,444,191,956 | 8,326,447,000 | 1.01 |
| Tax on capital income | 21,460,118 | --- | --- | 3,708,168,531 | --- | --- |
| Property tax on other buildings (ICI seconda casa) | --- | --- | --- | 5,208,604,529 | --- | --- |

Notes: Revenue amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records; Agenzia del Territorio, Gli immobili in Italia (for data on deduction for main residence).

Table 43. EUROMOD validation: income taxes, 2010

| | Taxpayers (unit) | | | Revenue (unit) | | |
|--|------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Total taxable income | 43,214,111 | 41,168,189 | 1.05 | 800,793,343,781 | 792,519,947,000 | 1.01 |
| Deduction for main residence | 23,605,071 | - | - | 11,224,974,643 | 11,438,566,222 | 0.98 |
| Imputed deductions | 2,361,031 | 2,599,967 | 0.91 | 1,135,650,474 | 1,493,622,000 | 0.76 |
| Total deductions | 11,379,582 | 13,373,548 | 0.85 | 22,995,721,170 | 21,745,685,000 | 1.06 |
| Net taxable income | 40,883,500 | 39,894,421 | 1.02 | 785,708,980,693 | 762,184,577,000 | 1.03 |
| Gross tax (IRPEF) | 40,867,418 | 39,077,536 | 1.05 | 207,398,919,037 | 205,612,576,000 | 1.01 |
| Family tax credits | 10,956,207 | 12,624,414 | 0.87 | 12,324,304,785 | 11,374,912,000 | 1.08 |
| Tax credits for income sources | 38,191,940 | 36,426,414 | 1.05 | 44,654,288,129 | 41,866,806,000 | 1.07 |
| Tax credits for mortgage interest (at 19%) | 3,305,107 | 3,841,354 | 0.86 | 1,487,292,292 | 1,146,584,000 | 1.30 |
| Tax credit for health related expenditures | 13,294,566 | 15,002,250 | 0.89 | 2,242,277,018 | 2,585,119,000 | 0.87 |
| Tax credit for charitable givings | 879,317 | 915,111 | 0.96 | 33,288,117 | 36,358,000 | 0.92 |
| Other tax credits | 5,633,030 | 3,295,815 | 1.71 | 1,674,051,566 | 1,705,904,000 | 0.98 |
| Tax credit on life insurance | 6,317,116 | 6,519,975 | 0.97 | 841,903,234 | 750,785,000 | 1.12 |
| Tax credit on funeral expenditures | 372,900 | 427,986 | 0.87 | 103,636,287 | 119,344,000 | 0.87 |
| Tax credit on educational expenditures | 1,728,760 | 2,095,072 | 0.83 | 225,688,197 | 318,348,000 | 0.71 |
| Tax credits on refurbishment (at 36%) | 4,651,033 | 5,267,221 | 0.88 | 2,045,386,161 | 2,242,562,000 | 0.91 |
| Total tax credit | 36,181,828 | 39,087,686 | 0.93 | 65,632,115,783 | 62,482,056,000 | 1.05 |
| Net tax (IRPEF) | 32,749,888 | 30,987,194 | 1.06 | 147,263,552,639 | 149,442,986,000 | 0.99 |
| Regional additional income tax (IRPEF) | 32,837,162 | 30,652,846 | 1.07 | 8,865,697,844 | 8,633,217,000 | 1.03 |
| Tax on capital income | 21,460,118 | --- | --- | 1,743,579,170 | --- | --- |
| Property tax on other buildings (ICI seconda casa) | --- | --- | --- | 5,227,476,812 | --- | --- |

Notes: Revenue amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records; Agenzia del Territorio, Gli immobili in Italia (for data on deduction for main residence).

Table 44. EUROMOD validation: income taxes, 2011

| | Taxpayers (unit) | | | Revenue (unit) | | |
|--|------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Total taxable income | 43,118,335 | 40,930,657 | 1.05 | 800,858,001,471 | 800,293,855,000 | 1.00 |
| Deduction for main residence | 23,605,071 | - | - | 11,532,393,659 | 11,438,566,222 | 1.01 |
| Imputed deductions | 2,359,674 | 2,653,718 | 0.89 | 1,131,455,607 | 1,553,423,000 | 0.73 |
| Total deductions | 11,379,582 | 13,590,840 | 0.84 | 23,568,490,485 | 22,219,662,000 | 1.06 |
| Net taxable income | 40,640,083 | 40,267,013 | 1.01 | 785,417,724,224 | 772,219,281,000 | 1.02 |
| Gross tax (IRPEF) | 40,620,301 | 39,334,446 | 1.03 | 207,219,462,315 | 208,215,753,000 | 1.00 |
| Family tax credits | 10,939,633 | 12,609,445 | 0.87 | 12,300,046,225 | 11,289,654,000 | 1.09 |
| Tax credits for income sources | 38,213,590 | 36,107,309 | 1.06 | 44,597,820,017 | 41,467,876,000 | 1.08 |
| Tax credits for mortgage interest (at 19%) | 3,305,107 | 3,846,769 | 0.86 | 1,508,329,357 | 1,235,228,760 | 1.22 |
| Tax credit for health related expenditures | 13,289,277 | 15,684,283 | 0.85 | 2,240,761,107 | 2,732,762,970 | 0.82 |
| Tax credit for charitable givings | 879,317 | 862,154 | 1.02 | 33,243,769 | 33,860,850 | 0.98 |
| Other tax credits | 5,631,673 | 3,409,883 | 1.65 | 1,674,016,083 | 1,776,081,000 | 0.94 |
| Tax credit on life insurance | 6,315,243 | 6,285,923 | 1.00 | 839,528,767 | 685,404,860 | 1.22 |
| Tax credit on funeral expenditures | 372,900 | 434,008 | 0.86 | 103,636,287 | 119,873,280 | 0.86 |
| Tax credit on educational expenditures | 1,724,671 | 2,031,551 | 0.85 | 223,994,478 | 319,894,640 | 0.70 |
| Tax credits on refurbishment (at 36%) | 4,651,033 | 5,641,161 | 0.82 | 2,101,759,445 | 2,457,789,000 | 0.86 |
| Total tax credit | 36,169,221 | 38,800,790 | 0.93 | 65,623,135,533 | 62,112,973,000 | 1.06 |
| Net tax (IRPEF) | 32,767,840 | 31,590,066 | 1.04 | 147,004,850,918 | 152,219,369,000 | 0.97 |
| Regional additional income tax (IRPEF) | 32,613,312 | 30,634,609 | 1.06 | 11,141,406,079 | 10,958,955,000 | 1.02 |
| Tax on capital income | 21,460,118 | --- | --- | 1,510,748,705 | --- | --- |
| Property tax on other buildings (ICI seconda casa) | --- | --- | --- | 5,370,728,497 | --- | --- |

Notes: Revenue amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records; Agenzia del Territorio, Gli immobili in Italia (for data on deduction for main residence).

Table 45. EUROMOD validation: income taxes, 2012

| | Taxpayers (unit) | | | Revenue (unit) | | |
|--|------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Total taxable income | 40,057,188 | 40,530,766 | 0.99 | 796,803,206,052 | 800,371,453,000 | 1.00 |
| Deduction for main residence | - | - | --- | 11,983,027,830 | 11,438,566,222 | 1.05 |
| Imputed deductions | 2,464,477 | 2,159,213 | 1.14 | 1,127,076,577 | 1,661,672,000 | 0.68 |
| Total deductions | 11,410,986 | 10,343,853 | 1.10 | 25,453,425,247 | 23,794,236,000 | 1.07 |
| Net taxable income | 40,057,188 | 40,062,256 | 1.00 | 792,301,363,184 | 773,562,156,000 | 1.02 |
| Gross tax (IRPEF) | 40,043,524 | 38,832,732 | 1.03 | 209,197,645,491 | 208,174,885,000 | 1.00 |
| Family tax credits | 10,894,057 | 12,780,836 | 0.85 | 12,184,551,864 | 11,468,969,000 | 1.06 |
| Tax credits for income sources | 37,279,759 | 36,563,581 | 1.02 | 44,335,892,170 | 41,642,375,000 | 1.06 |
| Tax credits for mortgage interest (at 19%) | 3,305,107 | 3,849,283 | 0.86 | 1,537,870,514 | 1,153,767,970 | 1.33 |
| Tax credit for health related expenditures | 13,464,728 | 16,400,628 | 0.82 | 2,237,350,101 | 2,888,931,570 | 0.77 |
| Tax credit for charitable givings | 935,068 | 873,590 | 1.07 | 33,081,077 | 32,961,390 | 1.00 |
| Other tax credits | 5,781,522 | 3,619,127 | 1.60 | 1,669,193,956 | 1,454,679,140 | 1.15 |
| Tax credit on life insurance | 6,469,677 | 6,027,604 | 1.07 | 839,297,564 | 630,153,050 | 1.33 |
| Tax credit on funeral expenditures | 406,754 | 457,069 | 0.89 | 103,636,287 | 125,334,450 | 0.83 |
| Tax credit on educational expenditures | 1,701,443 | 2,042,634 | 0.83 | 221,601,215 | 337,291,420 | 0.66 |
| Tax credits on refurbishment (at 36%) | 4,812,781 | 6,173,777 | 0.78 | 2,183,796,647 | 2,761,297,000 | 0.79 |
| Total tax credit | 36,877,079 | 39,129,023 | 0.94 | 65,346,271,396 | 62,984,526,000 | 1.04 |
| Net tax (IRPEF) | 32,955,263 | 31,216,838 | 1.06 | 149,047,983,536 | 152,270,261,000 | 0.98 |
| Regional additional income tax (IRPEF) | 32,714,623 | 30,321,649 | 1.08 | 11,327,184,011 | 11,009,521,000 | 1.03 |
| Tax on capital income | 21,460,118 | 0 | | 1,324,815,460 | 0 | |
| Property tax on main residence (IMU prima casa) | --- | --- | --- | 4,323,202,106 | 4,000,000,000 | 1.08 |
| Property tax on other buildings (IMU seconda casa) | --- | --- | --- | 10,603,093,021 | --- | --- |

Notes: Revenue amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records; Agenzia del Territorio, Gli immobili in Italia (for data on deduction for main residence).

Table 46. EUROMOD validation: income taxes, 2013

| | Taxpayers (unit) | | | Revenue (unit) | | |
|--|------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Total taxable income | 40,057,188 | - | - | 806,517,425,836 | - | - |
| Deduction for main residence | - | - | - | 12,136,085,829 | - | - |
| Imputed deductions | 2,351,336 | - | - | 1,124,079,253 | - | - |
| Total deductions | 11,371,244 | - | - | 26,129,383,353 | - | - |
| Net taxable income | 40,057,188 | - | - | 802,428,971,339 | - | - |
| Gross tax (IRPEF) | 40,043,524 | - | - | 212,262,894,037 | - | - |
| Family tax credits | 10,883,530 | - | - | 12,135,604,946 | - | - |
| Tax credits for income sources | 38,141,821 | - | - | 44,008,361,009 | - | - |
| Tax credits for mortgage interest (at 19%) | 3,305,107 | - | - | 1,547,529,915 | - | - |
| Tax credit for health related expenditures | 13,255,557 | - | - | 2,246,195,068 | - | - |
| Tax credit for charitable givings | 876,839 | - | - | 33,321,012 | - | - |
| Other tax credits | 5,614,597 | - | - | 1,687,508,873 | - | - |
| Tax credit on life insurance | 6,298,167 | - | - | 840,339,379 | - | - |
| Tax credit on funeral expenditures | 372,900 | - | - | 103,636,287 | - | - |
| Tax credit on educational expenditures | 1,701,555 | - | - | 220,298,776 | - | - |
| Tax credits on refurbishment (at 36%) | 4,651,033 | - | - | 2,211,478,254 | - | - |
| Total tax credit | 36,075,755 | - | - | 65,034,273,518 | - | - |
| Net tax (IRPEF) | 32,718,896 | - | - | 152,208,248,366 | - | - |
| | | - | - | | - | - |
| Regional additional income tax (IRPEF) | 32,640,165 | - | - | 11,607,357,366 | - | - |
| Tax on capital income | 21,460,118 | - | - | 1,341,741,741 | - | - |
| Property tax on main residence (IMU prima casa) | --- | - | - | - | - | - |
| Property tax on other buildings (IMU seconda casa) | --- | - | - | 10,738,801,948 | - | - |

Notes: Revenue amounts are expressed in euro per year. Sources: Agenzia delle Entrate, Analysis of Tax Records; Agenzia del Territorio, Gli immobili in Italia (for data on deduction for main residence).

4.1.3 Simulated social contributions

Due to lack of external data we are not able to validate the number of individuals paying social insurance contributions. We simulate quite well self-employed SICs while we over-simulate the employee SICs and under simulate the employer SIC. One potential reason is that we apply the minimum contribution on an annual basis, but we lack important information to simulate the minimum correctly (a user can decide to simulate the minimum contribution on a monthly basis by simply switching on and off the relevant functions already implemented in EUROMOD). Moreover, the comparability between simulations and available external aggregate data is difficult to assess.

Table 47. EUROMOD validation: social contributions, 2009

| | Contributors (unit) | | | Revenue (unit) | | |
|----------------------|---------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employer SICs | 18,676,928 | --- | --- | 137,080,399,747 | 161,822,000,000 | 0.85 |
| Employee SICs | 18,676,928 | --- | --- | 44,907,436,538 | 40,321,000,000 | 1.11 |
| Self employment SICs | 7,029,509 | --- | --- | 18,641,493,277 | 17,936,847,000 | 1.04 |

Notes: Revenue amounts are expressed in euro per year. Sources: MEF (2010), *I conti della Protezione Sociale* - Tabella 6 and Agenzia delle Entrate, Analysis of Tax Records.

Table 48. EUROMOD validation: social contributions, 2010

| | Contributors (unit) | | | Revenue (unit) | | |
|----------------------|---------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employer SICs | 18,676,928 | --- | --- | 139,947,882,608 | 162,898,000,000 | 0.86 |
| Employee SICs | 18,676,928 | --- | --- | 45,870,361,793 | 39,989,000,000 | 1.15 |
| Self employment SICs | 7,029,509 | --- | --- | 19,136,154,867 | 17,602,954,000 | 1.09 |

Notes: Revenue amounts are expressed in euro per year. Sources: MEF (2010), *I conti della Protezione Sociale* - Tabella 6 and Agenzia delle Entrate, Analysis of Tax Records.

Table 49. EUROMOD validation: social contributions, 2011

| | Contributors (unit) | | | Revenue (unit) | | |
|----------------------|---------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employer SICs | 18,676,928 | --- | --- | 142,212,349,968 | 166,112,000,000 | 0.86 |
| Employee SICs | 18,676,928 | --- | --- | 46,614,047,017 | 39,542,000,000 | 1.18 |
| Self employment SICs | 7,029,509 | --- | --- | 19,660,573,124 | 17,823,853,000 | 1.10 |

Notes: Revenue amounts are expressed in euro per year. Sources: MEF (2010), *I conti della Protezione Sociale* - Tabella 6 and Agenzia delle Entrate, Analysis of Tax Records.

Table 50. EUROMOD validation: social contributions, 2012

| | Contributors (unit) | | | Revenue (unit) | | |
|----------------------|---------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employer SICs | 19,043,071 | --- | --- | 144,411,946,632 | 165,879,000,000 | 0.87 |
| Employee SICs | 19,043,071 | --- | --- | 47,357,492,094 | 39,942,000,000 | 1.19 |
| Self employment SICs | 7,029,509 | --- | --- | 21,491,634,342 | 19,062,322,000 | 1.13 |

Notes: Revenue amounts are expressed in euro per year. Sources: MEF (2010), *I conti della Protezione Sociale* - Tabella 6 and Agenzia delle Entrate, Analysis of Tax Records.

Table 51. EUROMOD validation: social contributions, 2013

| | Contributors (unit) | | | Revenue (unit) | | |
|----------------------|---------------------|-----------------|-------|-----------------|-----------------|-------|
| | EUROMOD | External source | Ratio | EUROMOD | External source | Ratio |
| Employer SICs | 18,676,928 | --- | --- | 146,105,177,233 | --- | --- |
| Employee SICs | 18,676,928 | --- | --- | 47,912,261,915 | --- | --- |
| Self employment SICs | 7,029,509 | --- | --- | 22,136,692,579 | --- | --- |

Notes: Revenue amounts are expressed in euro per year. Sources: MEF (2010), *I conti della Protezione Sociale* - Tabella 6 and Agenzia delle Entrate, Analysis of Tax Records.

4.1.4 Social benefits

The Family Allowances and the Social Allowance for elderly are the only benefits simulated in EUROMOD.

There are no information on the number of recipients in external statistics.

The simulated aggregates match quite well the external statistics from ISTAT. However, the caveat mentioned above about the simulation of the two benefits need to be borne in mind. In particular, comparing the simulated amount of the Family Allowances with the one recorded in the survey, it emerges a mismatch of families receiving the benefits of around 40% of beneficiaries. Moreover, the simulated Family Allowances have a greater impact on poverty reduction than the recorded ones (basically, explaining the differences in poverty rates between EUROMOD and SILC, see below).

The social benefits included and not simulated match quite well the external statistics with the exception of the Supplementation wage scheme (CIG) that results to be overestimated due to massive use of this scheme to support firms affected by the economic crisis from 2009 (data year) on. The overestimation of the Supplementation wage scheme in 2009 (and the overestimation of employment income) needs to be born in mind in the interpretation of the figures related to income distribution presented below.

Table 52. EUROMOD validation: benefits, 2009

| | Recipients | Expenditure (euro) | | |
|--------------------------------------|------------|--------------------|-----------------|-------|
| | (unit) | EUROMOD | External source | Ratio |
| | EUROMOD | EUROMOD | External source | Ratio |
| <i>Included</i> | | | | |
| Old age pension and early retirement | 11,452,935 | 178,132,955,011 | 188,126,000,000 | 0.95 |
| Sickness and invalidity pension | 5,051,132 | 30,111,580,006 | 31,254,000,000 | 0.96 |
| Survivor pension | 4,460,496 | 37,144,778,589 | 40,283,000,000 | 0.92 |
| Unemployment | 2,228,877 | 7,824,542,661 | 7,500,000,000 | 1.04 |
| Supplementation wage scheme | 765,300 | 3,214,396,620 | 2,463,000,000 | 1.31 |
| Severance pay | 4,270,351 | 18,097,172,706 | 24,342,000,000 | 0.74 |
| Other allowances - assistance | 1,437,717 | 3,514,900,354 | 4,979,000,000 | 0.71 |
| <i>Simulated</i> | | | | |
| Family allowances | 6,888,534 | 6,465,596,429 | 6,390,000,000 | 1.01 |
| Social pension | 1,073,421 | 3,595,380,003 | 3,970,000,000 | 0.91 |
| <i>Data variable</i> | | | | |
| Family allowances | 6,508,814 | 6,476,814,424 | 6,390,000,000 | 1.01 |
| Social pension | 799,129 | 3,779,629,247 | 3,970,000,000 | 0.95 |

Notes: Sources: ISTAT (2013) - *Conti della protezione sociale* - Tavola 21.

Table 53. EUROMOD validation: benefits, 2010

| | Recipients | Expenditure (euro) | | |
|--------------------------------------|------------|--------------------|-----------------|-------|
| | (unit) | EUROMOD | External source | Ratio |
| | EUROMOD | EUROMOD | External source | Ratio |
| <i>Included</i> | | | | |
| Old age pension and early retirement | 11,452,935 | 179,300,032,396 | 192,398,000,000 | 0.93 |
| Sickness and invalidity pension | 5,051,132 | 30,608,101,905 | 31,517,000,000 | 0.97 |
| Survivor pension | 4,460,496 | 37,402,092,768 | 40,439,000,000 | 0.92 |
| Unemployment | 2,228,877 | 7,883,232,663 | 8,264,000,000 | 0.95 |
| Supplementation wage scheme | 765,300 | 3,238,501,900 | 3,125,000,000 | 1.04 |
| Severance pay | 4,270,351 | 18,428,345,665 | 27,416,000,000 | 0.67 |
| Other allowances - assistance | 1,437,717 | 3,124,552,630 | 2,962,000,000 | 1.05 |
| <i>Simulated</i> | | | | |
| Family allowances | 6,844,312 | 6,413,809,318 | 6,314,000,000 | 1.02 |
| Social pension | 1,121,797 | 3,758,711,389 | 4,131,000,000 | 0.91 |
| <i>Data variable</i> | | | | |
| Family allowances | 6,508,814 | 6,595,324,767 | 6,314,000,000 | 1.04 |
| Social pension | 799,129 | 3,848,798,491 | 4,131,000,000 | 0.93 |

Sources: ISTAT (2013) - *Conti della protezione sociale* - Tavola 22.

Table 54. EUROMOD validation: benefits, 2011

| | Recipients | Expenditure (euro) | | |
|--------------------------------------|------------|--------------------|-----------------|-------|
| | (unit) | EUROMOD | External source | Ratio |
| <i>Included</i> | | | | |
| Old age pension and early retirement | 11,452,935 | 182,051,085,106 | 197,952,000,000 | 0.92 |
| Sickness and invalidity pension | 5,051,132 | 31,239,088,849 | 31,622,000,000 | 0.99 |
| Survivor pension | 4,460,496 | 37,996,534,020 | 41,558,000,000 | 0.91 |
| Unemployment | 2,228,877 | 8,005,287,839 | 8,488,000,000 | 0.94 |
| Supplementation wage scheme | 765,300 | 3,288,648,205 | 2,996,000,000 | 1.10 |
| Severance pay | 4,270,351 | 18,935,062,925 | 27,059,000,000 | 0.70 |
| Other allowances - assistance | 1,437,717 | 2,556,614,931 | 3,232,000,000 | 0.79 |
| <i>Simulated</i> | | | | |
| Family allowances | 6,898,581 | 6,388,504,315 | 6,428,000,000 | 0.99 |
| Social pension | 1,129,347 | 3,845,619,361 | 4,160,000,000 | 0.92 |
| <i>Data variable</i> | | | | |
| Family allowances | 6,508,814 | 6,776,627,516 | 6,428,000,000 | 1.05 |
| Social pension | 799,129 | 3,954,628,887 | 4,160,000,000 | 0.95 |

Sources: ISTAT (2013) - *Conti della protezione sociale* - Tavola 23.

Table 55. EUROMOD validation: benefits, 2012

| | Recipients | Expenditure (euro) | | |
|--------------------------------------|------------|--------------------|-----------------|-------|
| | (unit) | EUROMOD | External source | Ratio |
| <i>Included</i> | | | | |
| Old age pension and early retirement | 11,455,168 | 183,873,949,936 | 202,617,000,000 | 0.91 |
| Sickness and invalidity pension | 5,051,132 | 32,037,371,503 | 31,607,000,000 | 1.01 |
| Survivor pension | 4,460,496 | 38,809,456,181 | 42,080,000,000 | 0.92 |
| Unemployment | 2,228,877 | 8,221,251,663 | 9,557,000,000 | 0.86 |
| Supplementation wage scheme | 765,300 | 3,377,362,624 | 3,410,000,000 | 0.99 |
| Severance pay | 4,270,351 | 19,675,231,974 | 26,333,000,000 | 0.75 |
| Other allowances - assistance | 1,437,717 | 2,118,060,628 | 2,654,000,000 | 0.80 |
| <i>Simulated</i> | | | | |
| Family allowances | 6,991,883 | 6,457,245,531 | 6,580,000,000 | 0.98 |
| Social pension | 1,120,995 | 3,947,483,319 | 4,284,000,000 | 0.92 |
| <i>Data variable</i> | | | | |
| Family allowances | 6,508,814 | 7,041,585,352 | 6,580,000,000 | 1.07 |
| Social pension | 799,129 | 4,109,228,997 | 4,284,000,000 | 0.96 |

Sources: ISTAT (2013) - *Conti della protezione sociale* - Tavola 24.

Table 56. EUROMOD validation: benefits, 2013

| | Recipients | Expenditure (euro) | | |
|--------------------------------------|------------|--------------------|-----------------|-------|
| | (unit) | EUROMOD | External source | Ratio |
| <i>Included</i> | | | | |
| Old age pension and early retirement | 11,452,935 | 186,029,945,365 | --- | --- |
| Sickness and invalidity pension | 5,051,132 | 32,947,175,866 | --- | --- |
| Survivor pension | 4,460,496 | 39,740,343,812 | --- | --- |
| Unemployment | 2,228,877 | 8,468,505,456 | --- | --- |
| Supplementation wage scheme | 765,300 | 3,478,938,203 | --- | --- |
| Severance pay | 4,270,351 | 19,924,983,254 | --- | --- |
| Other allowances - assistance | 1,437,717 | 3,170,482,182 | --- | --- |
| <i>Simulated</i> | | | | |
| Family allowances | 7,087,873 | 6,575,899,759 | --- | --- |
| Social pension | 1,129,664 | 4,053,821,200 | --- | --- |
| <i>Data variable</i> | | | | |
| Family allowances | 6,508,814 | 7,130,989,390 | --- | --- |
| Social pension | 799,129 | 4,161,385,299 | --- | --- |

Sources: External data not available yet.

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.

For 2009, we compare our results with statistics based on the Italian version of SILC data (same sample of EUROMOD data).

4.2.1 Poverty

The overall relative poverty rate is slightly underestimated in EUROMOD versus SILC. The differences are larger with lower poverty lines. As mentioned above, most of the differences are explained by the simulated Family Allowances which have a greater impact on poverty reduction than the recorded ones. Without considering any change in the structure of the population, there are no substantial differences over the five years considered.

Table 57. EUROMOD validation: poverty rates at different poverty lines, 2009

| Percentage of individuals below: | EUROMOD | SILC | Ratio |
|----------------------------------|---------|-------|-------|
| All | | | |
| 40% | 6.81 | 6.96 | 0.98 |
| 50% | 11.19 | 11.55 | 0.97 |
| 60% | 17.80 | 18.18 | 0.98 |
| 70% | 26.07 | 25.99 | 1.00 |
| Children (<= 18) | | | |
| 40% | 10.83 | 10.98 | 0.99 |
| 50% | 16.82 | 17.10 | 0.98 |
| 60% | 23.96 | 25.04 | 0.96 |
| 70% | 34.57 | 34.90 | 0.99 |
| Elderly (>=65) | | | |
| 40% | 2.09 | 2.93 | 0.71 |
| 50% | 4.94 | 7.79 | 0.63 |
| 60% | 14.29 | 16.65 | 0.86 |
| 70% | 23.71 | 25.65 | 0.92 |
| Females | | | |
| 40% | 7.24 | 7.47 | 0.97 |
| 50% | 11.72 | 12.41 | 0.94 |
| 60% | 18.96 | 19.52 | 0.97 |
| 70% | 27.53 | 27.71 | 0.99 |
| Males | | | |
| 40% | 6.35 | 6.42 | 0.99 |
| 50% | 10.64 | 10.64 | 1.00 |
| 60% | 16.57 | 16.75 | 0.99 |
| 70% | 24.52 | 24.16 | 1.01 |

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.

Table 58. EUROMOD validation: poverty rates at different poverty lines, 2009 – 2013

| Percentage of individuals below: | | EUROMOD | | | | |
|----------------------------------|-----|---------|-------|-------|-------|-------|
| | | 2009 | 2010 | 2011 | 2012 | 2013 |
| All | | | | | | |
| | 40% | 6.81 | 6.75 | 6.77 | 6.68 | 6.62 |
| | 50% | 11.19 | 11.07 | 11.01 | 10.95 | 10.70 |
| | 60% | 17.80 | 17.60 | 17.49 | 17.36 | 17.30 |
| | 70% | 26.07 | 25.78 | 25.85 | 25.77 | 25.69 |
| Children (<= 18) | | | | | | |
| | 40% | 10.83 | 10.71 | 10.76 | 10.57 | 10.61 |
| | 50% | 16.82 | 16.55 | 16.50 | 16.20 | 16.00 |
| | 60% | 23.96 | 23.56 | 23.18 | 22.98 | 23.38 |
| | 70% | 34.57 | 33.71 | 33.90 | 33.76 | 34.05 |
| Elderly (>=65) | | | | | | |
| | 40% | 2.09 | 2.07 | 2.10 | 2.14 | 1.95 |
| | 50% | 4.94 | 4.88 | 4.89 | 5.46 | 4.65 |
| | 60% | 14.29 | 14.24 | 14.26 | 14.25 | 13.32 |
| | 70% | 23.71 | 24.11 | 24.31 | 24.50 | 23.28 |
| Females | | | | | | |
| | 40% | 7.24 | 7.18 | 7.24 | 7.15 | 7.03 |
| | 50% | 11.72 | 11.58 | 11.53 | 11.55 | 11.16 |
| | 60% | 18.96 | 18.81 | 18.64 | 18.55 | 18.37 |
| | 70% | 27.53 | 27.20 | 27.31 | 27.26 | 27.08 |
| Males | | | | | | |
| | 40% | 6.35 | 6.30 | 6.27 | 6.17 | 6.18 |
| | 50% | 10.64 | 10.54 | 10.47 | 10.33 | 10.21 |
| | 60% | 16.57 | 16.32 | 16.26 | 16.10 | 16.17 |
| | 70% | 24.52 | 24.28 | 24.29 | 24.20 | 24.23 |

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.

4.2.2 Income inequality

Tables below show the main inequality indices from EUROMOD and SILC. First of all, the Gini index for Original Income is reported from EUROMOD: it is around 0.51 in the five years considered. Gini coefficient of disposable income is slightly underestimated in EUROMOD, in line with the results about poverty rates. Comparison of disposable equivalised income (median) at different income deciles shows that we undersimulate the equivalised income in particular at the bottom and at the top of the distribution. As a consequence, mean and median income are slightly undersimulated in EUROMOD. As already mentioned above, without considering any change in the structure of the population, there are no substantial differences over the four years considered.

Table 59. EUROMOD validation: income inequality, 2009

| | EUROMOD | SILC | Ratio |
|------------------------------------|---------|---------|-------|
| Gini Coefficient Original Income | 0.507 | --- | --- |
| Gini Coefficient Disposable Income | 0.308 | 0.312 | 0.987 |
| Median income per decile | | | |
| 1 | 432.84 | 460.00 | 0.94 |
| 2 | 703.16 | 726.36 | 0.97 |
| 3 | 865.58 | 895.13 | 0.97 |
| 4 | 1012.60 | 1046.76 | 0.97 |
| 5 | 1169.38 | 1216.25 | 0.96 |
| 6 | 1350.60 | 1401.67 | 0.96 |
| 7 | 1542.51 | 1598.69 | 0.96 |
| 8 | 1775.76 | 1853.83 | 0.96 |
| 9 | 2104.48 | 2220.89 | 0.95 |
| 10 | 2840.28 | 3014.61 | 0.94 |
| Mean income (unequalised) | 980.74 | 1040.43 | 0.94 |
| Mean income (equalised) | 1423.18 | 1512.18 | 0.94 |
| Median income (equalised) | 1256.16 | 1330.33 | 0.94 |

Notes: Computed for individuals according to their household disposable income (HDI) equalised by the “modified OECD” equivalence scale. With the exception of the first line, all figures refer to disposable income.

Table 60. EUROMOD validation: income inequality, 2009-2013

| | EUROMOD | | | | |
|------------------------------------|---------|---------|---------|---------|---------|
| | 2009 | 2010 | 2011 | 2012 | 2013 |
| Gini Coefficient Original Income | 0.507 | 0.510 | 0.511 | 0.510 | 0.510 |
| Gini Coefficient Disposable Income | 0.308 | 0.307 | 0.308 | 0.307 | 0.306 |
| Median income per decile | | | | | |
| 1 | 432.84 | 435.44 | 439.46 | 439.03 | 452.96 |
| 2 | 703.16 | 709.44 | 716.65 | 721.94 | 739.13 |
| 3 | 865.58 | 869.26 | 877.07 | 884.79 | 904.49 |
| 4 | 1012.60 | 1017.03 | 1027.22 | 1036.89 | 1057.06 |
| 5 | 1169.38 | 1175.39 | 1188.84 | 1194.80 | 1217.99 |
| 6 | 1350.60 | 1354.78 | 1369.09 | 1376.31 | 1399.47 |
| 7 | 1542.51 | 1549.00 | 1565.46 | 1572.59 | 1598.92 |
| 8 | 1775.76 | 1784.38 | 1801.61 | 1806.09 | 1835.78 |
| 9 | 2104.48 | 2115.10 | 2140.63 | 2152.87 | 2185.98 |
| 10 | 2840.28 | 2850.15 | 2893.64 | 2900.31 | 2937.51 |
| Mean income (unequalised) | 980.74 | 985.06 | 997.16 | 1001.27 | 1019.88 |
| Mean income (equalised) | 1423.18 | 1430.03 | 1447.64 | 1454.63 | 1480.46 |
| Median income (equalised) | 1256.16 | 1260.23 | 1274.09 | 1282.28 | 1305.76 |

Notes: Computed for individuals according to their household disposable income (HDI) equalised by the “modified OECD” equivalence scale. With the exception of the first line, all figures refer to disposable income.

4.3 Summary of “health warnings”

This final section summarises the main findings in terms of particular aspects of the Italian part of EUROMOD that should be borne in mind when planning appropriate uses of the model and in interpreting the results. In particular:

- The correction of self-employment income for tax evasion is made by a coefficient proportional to the net self-employment income declared in the data. The user can decide to ignore such a correction by switching off the policy TCA_it in the Run dialog box.
- The simulation of Family Allowances is subject to limitations related to the lack of information on disability status, income and family composition in the income reference period (which is the solar year before the 1st of July of each year, and it remains valid until the 30th of June of the following year). Therefore, for example, for the period between the 1st of July 2009 and the 30th of June 2010, income produced in 2008 is taken into account. For the simulation of the benefit, we assume the family income to stay constant in two consecutive years and we use the income thresholds as of 1st July (instead of 30th June).

5. REFERENCES

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