EUROMOD

COUNTRY REPORT

BELGIUM (BE)

2014 - 2017

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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 28 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 Belgium. 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 H1.0. 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: https://www.euromod.ac.uk

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CONTENTS

1. BASIC INFORMATION 5
1.1 Basic information about the tax-benefit system 5
1.2 Social Benefits 7
1.2.1 Pensions 7
1.2.2 Unemployment benefits 7
1.2.3 Family Allowances 10
1.2.4 Social Assistance 11
1.2.5 Other 12
1.2.6 Scope and scale 12
1.3 Social contributions 13
1.4 Taxes 14
1.4.1 Personal income taxes 14
1.4.2 Property and wealth taxes 15
1.4.3 Taxes on goods and services 15
2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD 17
2.1 Scope of simulation 17
2.2 Simulated policies and order of simulation 18
2.2.1 Simulated policies 18
2.2.2 Structural changes in simulated policies, 2011-2017 20
2.3 Social benefits 21
2.3.1. Child benefit (kinderbijslag / allocations familiales) (*bch_s*) 21
2.3.2 Birth allowance (geboortepremie / prime de naissance) (*bchba_s*) 25
2.3.3 Income support (leefloon / revenu d'integration sociale) (*bsa_s*) 25
2.3.4 Income support for the elderly (inkomensgarantie voor ouderen / la garantie de revenus aux personnes âgées) (*bsaoa_s*) 27
2.3.5 Unemployment benefits (werkloosheidsuitkering / allocation de chômage) (*bun_s; byr_s*) 29
2.4 Social contributions 33
2.4.1 Employee social contributions and employer social contributions (*tscee_s, tscer_s*) 33
2.4.2 Special social security contributions (*tsceesp_s*) 39
2.4.3 Self-employed social contributions (*tscse_s*) 40
2.4.4 Social insurance contributions paid on non-labour income (*tscpe_s*) 42
2.4.5 Flemish care insurance contribution (tci_s) 43
2.5 Withholding income tax (*tinwh_s*) 44
2.6 Personal income tax (tin_s) 46
2.6.1 Tax unit 47
2.6.2 Exemptions 49
2.6.3 Tax deductions 49

2.6.4 Tax base 55

2.6.5 Federal tax schedule 56

2.6.6 Tax credits 57

2.7 Investment income taxes (*tinkt_s*) 61

2.8 Advanced levy on immovable property (*tprhm_s*) 61

3. DATA 63

3.1 General description 63

3.2 Data adjustment 63

3.3 Imputations and assumptions 64

3.3.1 Time period 64

3.3.2 Gross incomes 64

3.3.3 Disaggregation of harmonized variables 64

3.4 Updating 65

4. VALIDATION 66

4.1 Aggregate Validation 66

4.1.1 Components of disposable income 66

4.1.2 Validation of incomes inputted into the simulation 68

4.1.3 Validation of outputted (simulated) incomes 69

4.2 Income distribution 72

4.2.1 Income inequality 72

4.2.2 Poverty 72

4.3 Summary of "health warnings" 73

5. REFERENCES 73

6. SOURCES FOR TAX-BENEFIT DESCRIPTIONS/RULES 74

APPENDIX 1: UPRATING FACTORS 75

APPENDIX 2: VALIDATION TABLES 76

APPENDIX 3: POLICY EFFECTS IN 2016-2017 88

1. BASIC INFORMATION

1.1 Basic information about the tax-benefit system

- The social security system and tax system are both almost entirely coordinated at the national level. However, a number of taxes and benefits do not belong to the national system and vary across the regions.

  The revenue from taxation is collected at the national level and then it is divided over the different institutional levels (the federal level, the different regions (Brussels/Flanders/Wallonia) and the communities (Flemish community and French-speaking community)). Only municipalities' tax rates vary. Their collection however also takes place at the national level, after which these are transferred to the municipalities. The main exception in the national collection of taxes is the tax on real estate. This tax is administratively coordinated by the regions, while tax rates are set by the municipalities. Its revenue is split over the different administrative levels (municipalities, provinces, regions).

  Benefits that are part of the social security system (unemployment, pensions, sickness and disability benefits, family allowances, income support) are within the competence of the federal government. The most important benefits that are within the competence of the regions are as follows. First, there are the benefits related to education (study allowances). Second, additional social assistance (in addition to income support) is also a regional matter. Third, since the mid-2000s, the compulsory "Flemish care insurance" was established, which is only applicable for inhabitants of the region of Flanders and optionally available for the inhabitants of Brussels. Since July 2014 the regional governments are responsible for child benefits. Until now (2017) there are no regional differences in child benefits. In the following years the child benefits will be reformed by the regional governments.

- The fiscal year runs from 1st January to 31st December. Main benefit changes usually take place when price-indices reach a certain level. However, as wages increase at a higher pace than the indices, additional adjustments can also take place "outside the index". This is possible when governments and social partners agree on the amount the benefits have to be raised to ensure they do not drop below subsistence levels.

- The official state pension age is 65 for men as well as for women. Before, there was a slight discrepancy between the pension age of men and women (2003-2005: 63 for women; 2006-2008: 64 for women). However, for a number of professions (miners, seafarers), exceptions to this rule apply. In general, however, the average effective retirement age is considerably lower, mainly due to systems of early retirement and supplementary unemployment benefits for older unemployed.

- Nursery classes for all children from the age of 2.5 years onwards are free of charge and universally accessible. Although the compulsory education age is 6 years, the enrolment rate in the Belgian nursery classes is traditionally very high. Being in education is compulsory from the age of 6 onwards, but since September 2009, children should at least have attended one year of nursery school to be admitted to primary school at the age of 6. Compulsory education counts until the age of 18 (by attending school or by homeschooling). Exceptions can be made from the age of 15 onwards. Pupils in an education stream leading to a specific, mostly technical profession can make use of an apprenticeship agreement, and combine part-time school attendance with working part-time in a firm, exercising their profession under guidance there.

  For the family allowances, dependent children are in principle all children under 18 years. There are two exceptions to this rule. On the one hand, the child remains dependent until 21 if he or she is disabled. On the other hand, a child can remain dependent until the age of 25 if he or she is in full-time education (including higher and advanced education), not married, and his/her net taxable income as well as the number of days a gainful occupation has been exercised do not exceed certain thresholds. The income thresholds are slightly higher for handicapped children as well as for children of lone parents. To qualify as a dependent child in the taxation system, the age restrictions are not applicable. The income thresholds are the same as for the family allowances.

- In the taxation system and social assistance system, a lone parent is defined as a parent of resident dependent children, who does not legally cohabit with or is married to a partner (whether or not the partner is the parent of the child is irrelevant).

  In the taxation system, the amount of certain allowances depends on whether one is disabled to a certain degree. The degree is often expressed either as % decrease in functioning capacities or as points on a medical scale capturing the ability to live independently, and is being declared by a doctor. The threshold used for taxation allowances is a handicap of 66% or 9 points.

- The income tax system is an individual system. However, in the case of couples with a single earner, the system of the marital quotient applies. This consists of treating 30% of the total earnings of the couple as the income of the non-earning spouse (with a certain maximum). As a consequence of the progressivity of the Belgian tax rates, this amount is taxed at the lowest marginal tax rate instead of at the higher rate of the bracket in which the single earner's income would fall when treated as one entity.

- Capital income is usually taxed at the moment of remittance. This liberates the recipient from the obligation to declare the amounts in the tax return. If the capital income was not taxed at the moment of remittance, it has to be declared. It will then be taxed at a flat tax rate of 15%, except if it is beneficial for the recipient to treat capital income as regular income and to tax it at the standard rates (and brackets).

- All earning individuals are obliged to fill in a tax return if their income exceeds the minimum taxable income, except if their income consists entirely of a state pension or real estate income that is taxable only at the rate of cadastral income. As withholding tax is calculated taking only a few characteristics into account, differences between withholding tax and the final amount due are often considerable. A clearance of the balance usually takes place in the first half of the second year after the period in which the income has been received.

- All benefits and tax brackets are indexed to take account of inflation. Benefits usually rise every time price-indices reach a certain level. In 2015 there was no indexation the moment the price-index reached a 2% increase. This is part of the austerity measures of the federal government. Tax brackets and all related amounts are indexed on a yearly basis at the transition to the next fiscal year.

- Social assistance (the most important means-tested benefit in place) assesses entitlement according to benefit unit income. The benefit unit is the nuclear family - the couple (cohabiting or married) or single adult plus any dependent children. However, income from other first degree family members living together under the same roof and pooling income sources are taken into account for the means-test. Being assessed is the factual income at the moment of application for social assistance at the local Centre for Public Assistance (CPAS). The applicant has to declare all factual income, not only official. Some income sources (e.g. child benefits) are discarded in the means-test. The applicant/beneficiary is bound to provide all the necessary information and to contact the CPAS if something changed in his or her personal (financial) situation. The CPAS are obliged to revise the means-test on a yearly basis. However, it belongs to the discretionary power of the local Social Service Departments to do the assessment on a more frequent basis.

1.2 Social Benefits

This is an overview of the existing social benefits in Belgium. Our classification is thematic, which means that not all the benefits in one category are within the competence of the same administrative institution. For instance "guaranteed child allowances" are classified here under "family allowances", while administratively this measure is part of social assistance. This overview includes all social benefits, including those currently not simulated within EUROMOD.

1.2.1 Pensions

State pensions are financed by a "pay-as-you-go system". This means that pensions of the currently retired are financed by contributions on wages of the currently employed (and not by their own savings). In addition to the state pension schemes listed hereunder, second pillar pensions provide a supplementary pension to employees, which is being built via the employer. Although it is voluntary, half of the Belgian working population takes part in a second pillar pension scheme, and its importance is increasing.

- ***Old age pension***

In the state pension system (first pillar), three schemes are in place, depending on whether the retired person was an employee, a civil servant or a self-employed. For those workers who have fallen into more than one of these categories during their career, the rights acquired in the various systems are combined. Periods of involuntary unemployment (unemployment, sickness) are also taken into account. Besides the category one belongs to, the monthly benefit depends also on the course of one's career, the earned wages and the family situation. Replacement rates for retired employees are typically 75% in the case of single earner couples, and 60% for all other pensioners. Because of upper ceilings on the pension amounts, the replacement rates for higher earners will in general be considerably lower.

- ***Survivor pension***

The survivor pension is granted to the spouse following the death of the person who has built up pension rights. A few additional conditions apply (the spouse has to be over 45 years of age and be married for at least one year, or have a dependent child, or be permanently disabled).

- ***Minimum pension (income guarantee for the elderly)***

A minimum pension is a right granted to all Belgian citizens. As it actually belongs to the social assistance category, it is discussed under this heading and its official name: income guarantee for the elderly (see 1.2.4.b.)

- ***Early retirement pension***

Early retirement pension is actually an unemployment benefit and is discussed under this heading as well (see 1.2.2.c.). The normal benefit is raised with an additional compensation, usually paid for by the former employer. Also, the early retired are exempt from the obligation to actively seek work that is common for the "normal" unemployed. From 2015 on, conditions for early retirement have become stricter.

1.2.2 Unemployment benefits

Concerning unemployment benefits, three categories of recipients can be distinguished. Firstly, there are the indemnified unemployed. Under this heading the ordinary unemployment benefits are classified, but also the early retirement benefits. Secondly, some categories of employed persons are additionally being supported with unemployment benefits, for instance during temporary unemployment or during training. The third category consists of employees who reduce their working hours with the support of unemployment benefits.

- ***The indemnified unemployed***

a. Ordinary unemployment benefits (after employment)

This category includes both jobseekers and persons exempt from seeking work, such as those exempt because of social or familial reasons (and the older employees and early retired discussed in the next paragraph). The amount of the unemployment benefit is calculated on the basis of the previous salary, and a ceiling applies that is different depending on unemployment status. The replacement rate that applies thus depends on family situation (single, cohabitating, head of the family) and the length of the unemployment (digressive over time).

b. Full-time early retirement

What is described here as "early" retirement is in fact a "bridge" between losing a job before the (legal) age of retirement and the actual retirement. Therefore, a part of this benefit is financed through the unemployment legislation and a part by the employer. The early retired are exempt from the obligation to actively seek work.

c. Unemployment benefit for older employees

The older employees can be exempt from the obligation to seek work as well. In addition to the regular unemployment benefit, they receive an additional compensation, called the "seniority supplement", which is paid for by the former employer.

d. Unemployment benefit after finishing studies

Persons younger than 30 and without an employment history can receive unemployment benefits after finishing studies. The applicant must have finished his or her studies, be enrolled as a jobseeker for 310 workdays before he or she becomes eligible to receive the benefit. The benefit varies, depending on age and family situation (living alone, dependent family, etc.). The system was reformed in 2012, including a renaming of the benefit from "waiting allocation" to "professional integration allocation".

- ***Support of employed people***

a. Temporary unemployed

In contrast to the fully unemployed (discussed above), the temporary unemployed is bound by an employment contract, of which however the actual work is temporarily suspended (e.g. because of economic circumstances or weather conditions). Replacement rates are slightly higher than for the fully unemployed and do not decrease over time.

b. Part-time unemployed with preservation of rights and income guarantee benefit

Employees avoiding full unemployment by working part-time, can preserve the rights of a full-time unemployed and can receive an income guarantee benefit when he or she fulfils a number of conditions with regard to reference gross wage and effort (apply for a full-time job with the employer if it becomes available).

c. Activation measures allowances

A first measure consists of the exemption from seeking work while receiving the unemployment benefit for those who follow a course that is organized or subsidized by the regional departments of the employment agency, or an individual in professional training in a company or educational institute. Secondly, there are a number of ways in which unemployed who resume work, continue to be supported by the National Employment Office. A part of the wage consists of an activation measure allowance (mostly for jobs in the social economy sector such as sheltered workshops, community work or home help).

- ***Support for the employed who reduce their working hours***

a. Part-time early retirement

Full-time employees have the possibility to reduce their working hours, while receiving an additional supplement to the part-time wage (paid partly by the employer and partly by the National Employment Office), from the age of 55 years onwards.

b. Time credit

Employees can interrupt their career full-time or part-time for a certain period. During this period, they remain under the same employment contract and receive compensation from the National Employment Office in the form of a career break allowance. After the break, they are entitled to the same rights as before. Different systems are elaborated for the different sectors ('time credit' is the name for the measure in the private sector). In each of the systems, besides a normal form, three special forms exist, targeted at specific needs to interrupt ones career (parental leave, palliative care leave, and medical assistance). From 1 January 2015 time credit without motivation has been abolished as part of the austerity measures of the federal government.

- ***Sickness & Disability Benefits***

a. Primary incapacity of work (sickness benefit)

This term is applicable during the first year during which a person is medically incapable of work, but not because of an occupational injury or disease. The (degree of) incapacity of work has to be recognized by a doctor approved by the social security office. The system exists for both employees and self-employed. In any case, the person should have paid a certain amount of social contributions to be eligible for this benefit. During the first month of work incapacity, employees receive 60% of their gross wage (with a maximum dependent on family situation). The self-employed receive a fixed amount per day depending on the family situation.

b. Disability benefit

The difference between the disability scheme and the sickness scheme is that the disability scheme starts after one has medically incapable of work for more than one year. For the employees, there is a difference in the replacement rates:

- 65% of the gross wage, if the person has dependants
- 55% of the gross wage in the case of a single person
- 40% of the gross wage when the person lives with someone else

All payments are subject to maximum limits per day. The disability benefit for the self-employed is increased by 3 to 4 €/day in the case the business is discontinued.

c. Occupational injury

Workers are covered by an insurance against accidents at work, which each employer is obliged to have. Not only accidents which occur at the workplace but also accidents which happen on the way to or from work are classified as accidents at work. Self-employed persons are not automatically insured against accidents at work. A separate rule applies to civil servants.

d. Occupational disease

There is a list of disorders which are recognised as occupational illnesses and which entitle the person suffering from one of the disorders to compensation. People who suffer from an illness not included on the list must prove that there is an established and direct link between the illness and their work. The benefit is paid for by the Fund for Occupational Diseases. If the disease is of a temporary nature, the replacement rate is 90% of the last wage. In the case when one becomes permanently disabled, the benefit is calculated according to the degree to which one is declared disabled (in %) and the last wage. All workers and civil servants are insured against occupational illnesses, self-employed persons are not.

e. Maternity leave

Maternity leave consists of a period of 15 weeks around the birth of the child, during which the female employee is indemnified by the National Sickness and Invalidity Insurance Institute. The allowance amounts to 82% of the normal wage for the first 30 days of the leave. Afterwards, the replacement rate is reduced to 75%, limited with an installed maximum amount. The 15 weeks can be spread around the foreseen birth date as the mother wishes, starting at the earliest six weeks before the foreseen birth date. In the case of multiple births, maternity leave is extended with two weeks.

f. Paternity leave

Paternity leave guarantees for each employee within a period of four months after the birth of the child a leave of 10 days (to be spread as one wishes). During the first three days, the employer continues to pay the full wage. The other days, the National Sickness and Invalidity Insurance Institute pays an allowance of 82% of the wage, limited with a maximum amount per day.

1.2.3 Family Allowances

- ***Ordinary child allowance***

Child allowance is paid to families with dependent children. In principle, children are dependent if they are younger than 18 years old. There are two exceptions to this rule. On the one hand, the child remains dependent until 21 if he or she is disabled. On the other hand, a child can remain dependent until the age of 25 if he or she is in full-time education (including higher and advanced education), not married, and if his/her net taxable income as well as the number of days a gainful occupation has been exercised does not exceed certain thresholds. The income thresholds are slightly higher for handicapped children as well as for children of lone parents.

In general a beneficiary, usually the father, is eligible for child allowance if his employer (or himself if he is self-employed) pays or paid social security contributions. The relevant rules for the computation of child allowances used to depend on the contribution scheme to which the employer of the beneficiary or the beneficiary himself contributed, but as of 2014 the three contribution schemes (for employers, self-employed and civil servants) are unified. If a beneficiary did not contribute to any of the social security contribution schemes he or she may still be eligible for child allowance through the system of guaranteed child allowance. The amount of child allowance depends on the birth order of the child. The guaranteed child allowance is means tested. Allowances for orphans do not depend on the child's birth order.

- ***Supplements to the ordinary child allowance***

a. Age-related supplements

Age-related supplements are the same for all schemes as well as for orphans and the guaranteed child allowance.

b. Social supplements

The social supplements are primarily for children of beneficiaries that receive a replacement income: retirement pension, survival pension, unemployment benefits (full-time and longer than six months in unemployment), and disability benefits. There are income conditions that must be met by the beneficiary in order to be eligible for social supplements to child benefits.

c. Supplements for disabled children

Ordinary child allowances and orphan allowance can be supplemented with an allowance for handicapped children of up to 21 years of age and if the child has a disability of at least 66%. The amount of the supplement is based on the consequences of the condition both for the child himself/herself and for the family in the sense of a diminished degree of social activity and participation.

- ***Birth allowance***

The birth allowance for the first-born is higher than for all following births. If the first-borns are twins then the amount for a first-born applies for both. A birth allowance can also be given in case of miscarriage as long as the pregnancy has lasted at least 180 days.

- ***Adoption premium***

An adoption premium is granted at the moment of adoption and is independent of the contribution scheme.

1.2.4 Social Assistance

- ***Income support***

If the means of a person are below a certain threshold, that person is eligible for income support. Income support is provided up to the level of the minimum income, i.e. the amount of the benefit is equal to the minimum existence level minus the own means. In principle one needs to apply for social assistance at a local centre for public assistance (CPAS), a body which is present in each municipality. The CPAS have some discretionary power over the acceptance. For example, the CPAS can demand an individualized project for social (re)integration that the applicant has to agree to and follow in order to get and/or keep social assistance. The income support is for unlimited duration but each year the CPAS has to make a re-assessment of the personal situation of the applicant and can withdraw income support based on the results of that inquiry. The beneficiary is bound to contact the CPAS from the moment something changed in his or her personal (financial) situation. The benefit unit is the nuclear family - the couple (cohabiting or married) or single adult plus any dependent children. This means that if a person claims income support his/her spouse is automatically covered, i.e. (s)he cannot claim income support separately. However, income from other first degree family members living together under the same roof and pooling income sources are taken into account for the means-test. Being assessed is the factual income at the moment of application for social assistance at the local Centre for Public Assistance (CPAS). The applicant has to declare all factual income, not only official. Some income sources (e.g. child benefits) are discarded in the means-test.

- ***Income Support for the Elderly***

All persons aged 64 or above are eligible to receive income support for the elderly. There is a distinction for persons living alone and those living with others at the same address. A person without a partner but living with (a) minor child(ren) or adult child(ren) for whom child benefits are received and/or relatives (descendants) are considered as living alone and are eligible to receive the increased amount. Income support for the elderly is an individual right whether being married or not.

- ***Contribution towards disabled persons***

Disabled persons receive an allowance in line with their age and level of disability. The parents of disabled children receive higher child allowance if the child (until the age of 21) is at least two-thirds disabled. Disabled persons older than 21 receive an income replacement benefit if they can prove that their ability to earn an income is reduced by two-thirds compared to that of a non-disabled person. The disabled person receives an integration allowance if a medical examination shows that the person's ability to live independently is restricted.

1.2.5 Other

- ***Flemish care insurance***

The recently installed Flemish care insurance (2002) is an exception to the nationally organized social security system. It is a collective insurance to provide partial reimbursement for the costs of care (informal care, professional home care, or professional residential care). The care insurance is compulsory for inhabitants of Flanders, and optionally available to inhabitants of Brussels and to Europeans working in Belgium. The annual fee - €25 (in 2011) per person older than 25 - is to be paid to the health insurance fund one is registered with. From 2015 onward, the annual fee is €50.

1.2.6 Scope and scale

Social benefits: recipients (as % of population) [2014 – 2017]

	2014	2015	2016	2017
Total population	**11,150,516**	**11,209,044**	**11,250,585**	**11,303,528**
Pensions (old age + survivors)	20.16%	n.a.	n.a.	n.a
Unemployment Benefits	10.96%	n.a.	n.a.	n.a
Unemployment after employment	3.36%	n.a.	n.a.	n.a
Unemployment after finishing studies	0.82%	n.a.	n.a.	n.a
Unemployed older employees	0.52%	n.a.	n.a.	n.a
Full-time early retirement	1.08%	n.a.	n.a.	n.a
Part-time early retirement	0.00%	n.a.	n.a.	n.a
Temporary unemployed	1.21%			n.a.
Part-time employed with income guarantee	0.45%	n.a.	n.a.	n.a
Other activation measures	1.03%	n.a.	n.a.	n.a
Career break (time-credit)	2.48%	n.a.	n.a.	n.a
Sickness & disability benefits	n.a.	n.a.	n.a.	n.a
Maternity leave	n.a.	n.a.	n.a.	n.a
(children giving right to) family allowances	n.a.	n.a.	n.a.	n.a
(children giving right to) birth allowances	n.a.	n.a.	n.a.	n.a
Social assistance	1.51%	n.a.	n.a.	n.a
Income support*	1.00%	n.a.	n.a.	n.a
Income support for the elderly	2.51%	n.a.	n.a.	n.a

Notes: All categories group the different social insurance schemes. (*) for income support, the number of benefit units is taken as an approximation for the number of recipients. However, in the third category of income support, at least two people (and possibly the whole family) are the beneficiaries of the benefit. Only counting the benefit unit implies that these families only count for "one" person. Therefore, it can be expected that the number presented, which refers to the number of benefit units, is a serious underestimation of the number of

people that benefit from the social assistance. However, no statistics are held on the number of beneficiaries inside the benefit units, so it was impossible to calculate the percentage of *persons* that are recipients.
Source: Vademecum Social Security, RVA, RIZIV, POD MI, RVP, RKW, FBZ, FAO

Social benefits: annual expenditure (as % of total government expenditure) [2012 – 2017]

	2012	2013	2014	2015	2016	2017
Total Government Expenditure for Social Protection (EUROSTAT) in millions of €	**110,488.12**	**118,422.71**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
Pensions (old age + survivors)	31.16%	30.87%	n.a.	n.a.	n.a.	n.a.
Unemployment Benefits	8.09%	7.63%	n.a.	n.a.	n.a.	n.a.
Unemployment after employment	3.31%	3.31%	n.a.	n.a.	n.a.	n.a.
Unemployment after finishing studies	n.a	n.a.	n.a.	n.a.	n.a.	n.a.
Unemployed older employees	0.86%	0.75%	n.a.	n.a.	n.a.	n.a.
Full-time early retirement	1.42%	1.35%	n.a.	n.a.	n.a.	n.a.
Part-time early retirement	0.00%	0.00%	n.a.	n.a.	n.a.	n.a.
Temporary unemployed	0.69%	0.70%	n.a.	n.a.	n.a.	n.a.
Part-time employed with income guarantee	0.22%	0.21%	n.a.	n.a.	n.a.	n.a.
Other activation measures	0.84%	0.61%	n.a.	n.a.	n.a.	n.a.
Career break (time-credit)	0.75%	0.70%	n.a.	n.a.	n.a.	n.a.
Sickness & disability benefits	5.11%	5.13%	n.a.	n.a.	n.a.	n.a.
Maternity leave	0.58%	0.55%	n.a.	n.a.	n.a.	n.a.
Family allowances	5.47%	n.a.	n.a.	n.a.	n.a.	n.a.
Birth allowances	0.12%	n.a.	n.a.	n.a.	n.a.	n.a.
Social assistance	1.07%	1.07%	n.a.	n.a.	n.a.	n.a.
Income support	0.68%	0.67%	n.a.	n.a.	n.a.	n.a.
Income support for the elderly	0.39%	0.40%	n.a.	n.a.	n.a.	n.a.

Notes: All categories group the different social insurance schemes.
No data available on government expenditure and expenditure on social protection in 2013-2015.
No data available for the expenditure of unemployment benefits after studies in 2012-2015.
Source: Vademecum Social Security, RVA, RIZIV, POD MI, RVP, RKW, FBZ, FAO

1.3 Social contributions

Social insurance contributions are different for wage earners on the public and private labour market, for blue and white collar workers, and for earned wages and for replacement income.

Employers: employers' social insurance contributions are calculated on the gross wage. The final total ratio ranges from 33% to 40.73% of the gross wage, dependent on the size of the firm and whether the employee is a blue or white collar worker.

Employees: social insurance contributions are paid on total gross earnings without ceiling and before income tax deductions. The tax base includes any advantages in money (and a limited number of fringe benefits), granted by the employer to the employee as a remuneration for the labour supplied. The standard rate of the social insurance contribution is 13.07% of total gross earnings. Social insurance contributions are calculated slightly differently for some income components of blue collar workers and white collar workers.

Civil servants: Social insurance contributions for wage earners on the public labour market *without statutory service* are the same as those for wage earners on the private labour market. The social insurance contributions for civil servants *with statutory service* are different than those for wage earners. The standard rate of the social insurance contribution for the civil servant is 11.05% of total gross earnings.

The self-employed: The full-time self-employed pay social insurance contributions on a quarterly basis based on their income in the third calendar year preceding the year of contribution. If the self-employed has not yet been active for three years a lump sum amount of contributions is levied which will be regulated later against real earned income.

Retirement pensions, survival pensions and early retirement pensions: Retirement and survival pension benefits are subject to a social insurance contribution of 3.55% for the funding of sickness and disability insurance. However, if the contribution would bring the pension amount below a certain threshold no contributions are due.

Disability benefits: On disability benefits received by wage earners a social insurance contribution of 3.5% is due to fund the pension insurance scheme. Again the contribution may not be due if the amount of benefits falls below a certain threshold. No contributions are due on benefits for primary disablement (first year).

Occupational injury and disease: The percentage applicable is 13.07% on benefits for either permanent or temporary disablement but no contribution is due on benefits for assistance by a third person.

The unemployed: do not pay social insurance contributions.

Special professional categories: a number of exceptions to the general calculation rules apply for a number of professional categories (independent child minders, seafarers, professional athletes with an employment contract, waiters, students employed by student contract, seasonal workers in horticulture or agriculture). Exceptions exist for both employee as well as employer contributions.

- ***Scope and scale***

Social contributions: annual revenue (in millions of €) [2014 – 2017]

	2014	2015	2016	2017
Social contributions (in millions of €)	57,026	58,481	n.a.	n.a.
Employees (incl. civil servants)	16,687	16,950	n.a.	n.a.
Employers (incl. public administr.)	35,187	36,091	n.a.	n.a.
Self-employed	3,726	3,966	n.a.	n.a.
Unemployed	0	0	n.a.	n.a.
Pensions	1,349	1,394	n.a.	n.a.
Other	78	80	n.a.	n.a.

Notes: The other-category contains mainly contributions on disability benefits and occupational injury and disease.
Source: OECD revenue statistics – details of tax revenue, Belgium (2012-2015).

1.4 Taxes

1.4.1 Personal income taxes

Personal income taxes are calculated by applying a progressive rate structure to the net taxable income of an individual person. Net taxable income equals gross income minus the sum of social insurance contributions, professional expenses (only for working persons), and deductable expenses. For a more detailed description of the tax system, refer to section 2.6.

The tax calculation system is individual; however, in order to apply the correct credits and allowances, the level at which the tax return is to be filled is the nuclear family: the single person or married couple together with dependent children (and, occasionally, other dependent persons). To qualify as dependent the person's own income may not surpass certain limits. Otherwise the person is considered a separate tax unit.

In the case of one-earner couples the tax legislator allows for income sharing between spouses up to a certain limit. If one of the spouses earns less than 30% of total net taxable income from professional activity, income between spouses is shared as if the higher earning spouse earned 70% of total household income from professional activity and the other spouse 30%.

Replacement incomes are taxable with the exception of social assistance, war pensions and benefits in case of a work-related accident or sickness for a person without any other income. Furthermore, replacement incomes give right to a tax credit, and total taxes on replacement income can be reduced to zero if they are below a given threshold and are the sole source of income.

1.4.2 Property and wealth taxes

Real estate taxes for house-owners are regulated at the regional level. The tax base is the "cadastral income", an estimate of the hypothetical annual net rental income of the property. This is taxed at a basic levy rate of 2.5% for the Flemish Region and at a 1.25% rate for the Brussels-Capital Region and the Walloon Region. The municipalities decide on the level of the surtax (opcentiemen/centimes additionelles). Reductions apply for specific family situations (having children, disabled household members), modest size and energy-efficiency of the dwelling. The real estate taxes are organised and collected at the regional level (slightly different systems apply in Brussels, Flanders and Wallonia).

Investment income is taxed at the source. On income from dividends, a 30% rate applies. Interest income from bonds is taxed at 15%, as is interest income from ones savings account. For natural persons, however, this last category is exempt from taxation as long as the interest income does not exceed a certain maximum amount.

For individuals or households, there exists no property tax on assets (or wealth tax). However, a number of taxes do apply on transactions of property (both movable and immovable). For immovable property, the most important category consists of registration taxes. For movable property, the main tax is the tax on stock exchange and carry-over transactions.

The inheritance tax can be seen as a form of wealth tax for individuals. This is a complex system with different rates (ranging from 3% to 80%) applying to different forms in which an inheritance can take place (money or in kind, descendants of which order).

1.4.3 Taxes on goods and services

The standard VAT rate is 21%. A lower rate of 6% exists for basic needs goods and services (e.g. food, books, pharmaceutical products, coffins) or 12% on a very limited number of intermediate-needs goods and services (e.g. construction of social housing).

Excise duties are levied on a number of products. Some important examples are mineral oils, tobacco, various alcoholic beverages, packaging.

A tax applies to individuals and corporations owning motor vehicles. The amount due depends on the type of motor vehicle, the cylinder capacity, the horse power and the type of fuel used.

- ***Scope and scale***

Taxes: revenue (in millions of €) [2014 – 2017]

	2014	2015	2016	2017
Annual revenue (millions of €)	**180,180**	**183,444**	**n.a.**	**n.a.**
Most important components for households / natural persons:				
Direct taxes				
Personal income taxes	47,030	47,094	n.a.	n.a.
Real estate tax	5,343	5,423	n.a.	n.a.
Investment income tax	4,315	3,955	n.a.	n.a.
Registration taxes	3,724	3,899	n.a.	n.a.
Tax on stock exchange and carry-over transactions	201	287	n.a.	n.a.
Inheritance tax	2,809	2,996	n.a.	n.a.
Indirect taxes				
VAT	27,518	27,578	n.a.	n.a.
Excise duties	8,209	8,648	n.a.	n.a.
Motor vehicle tax (part paid by hh)	1,127	1,168	n.a.	n.a.

Notes: The annual revenue numbers reported in the first line exclude the revenue from social insurance contributions
Source: OECD Revenue Statistics – details of tax revenue, Belgium (2012-2015).

2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

2.1 Scope of simulation

Not all the taxes and benefits mentioned in the previous section are simulated by EUROMOD. Some are entirely beyond its scope. Others are not possible to simulate accurately with the available data. They are included in the final output, but the rules governing them may not be changed by the model. Table 2 lists the main benefit categories, Table 2 the social insurance contributions and taxes.

Table 1. Simulation of benefits in EUROMOD [2014 – 2017]

	Variable name(s)	Treatment in EUROMOD				Why not fully simulated?
		2014	2015	2016	2017	
Pensions	poa, psu	I	I	I	I	No data on contribution history
Unemployment benefits	bun, byr	I	I	I	I	In the baseline simulation, UBs are taken from the data.
Ordinary UB	bun_s	PS	PS	PS	PS	Simulation of UB and is implemented for new unemployed and is based on a number of assumptions. See below.
Early retirement benefit	byr_s	PS	PS	PS	PS	
Sickness & Disability benefits	pdi, phl	I	I	I	I	No information on disability
Family benefits						
Maternity leave	bfapl	I	I	I	I	No data to simulate
Child allowance	bch_s	S	S	S	S	No information on disability: child allowance for disabled children not simulated
Birth allowance	bchba_s	S	S	S	S	
Education related allowances	bed	I	I	I	I	No data to simulate
Social assistance						
Income support	bsa_s	S	S	S	S	Simulation of IS is based on a number of assumptions
Income support for elderly	bsaoa_s	S	S	S	S	Simulation of IS for the elderly is based on a number of assumptions and switched OFF in the baseline
Housing benefit	bho	I	I	I	I	No data to simulate

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

Table 2. Simulation of taxes and social contributions in EUROMOD [2014 – 2017]

	Variable name(s)	Treatment in EUROMOD 2014	2015	2016	2017	Why not fully simulated?
Social contributions						
Employees	tscee_s	S	S	S	S	
civil servants	tscee_s	S	S	S	S	
self-employed	tscse_s	S	S	S	S	Calculations for self-employed are based on the number of assumptions
Pensions	tscpe_s	S	S	S	S	
Disability	tscdb_s	S	S	S	S	
special contribution	tsceesp_s	S	S	S	S	
Taxes						
Personal income tax	tin_s	S	S	S	S	
Real estate	tinprtahm_s	S	S	S	S	
Investment income tax	tinkt_s	S	S	S	S	A uniform tax rate of 15% is assumed
Property transactions	-	E	E	E	E	No information available
Inheritance	-	E	E	E	E	No information available
VAT	-	E	E	E	E	No information available
Excise duties	-	E	E	E	E	No information available
Motor vehicle tax	-	E	E	E	E	No information available

Notes: "-" policy did not exist in that year; "E" policy is *excluded* from the model's scope as it is neither included in the microdata nor simulated by EUROMOD; "PS" policy is *partially simulated* as some of its relevant rules are not simulated; "S" policy is *simulated* although some minor or very specific rules may not be simulated. Although there is a variable in SILC for property/wealth taxes, it is empty for Belgium, so it cannot be included in the model.

2.2 Simulated policies and order of simulation

2.2.1 Simulated policies

- ***Order of the simulated policies***

Table 3 shows the order of simulation (i.e. the spine).

At the beginning of the spine, in the policy called BTA_be, the user finds the switch related to the take-up correction of Income Support. In the baseline, the correction is switched ON and simulated values of Income Support are included in the disposable income. See section 2.3.3, for more details.

The first four policies concern the simulation of the social insurance contributions: for employees (including civil servants), for employers, for the self-employed, for pensioners (including early retirement pensioners), and for disability benefits. The social insurance contributions are deducted from gross income in order to calculate taxes.

For workers, professional expenses are additionally deducted in order to attain the taxable income. They are computed in the policy tintace_be.

The next policy tinwh_be contains the withholding tax legislation. In the baseline this policy is switched off, as the standard approach is to calculate final taxes.

Policies bun_be and byr_be, which follow next, are also switched off in the baseline. They can be used for calculation of unemployment benefits for new unemployed (e.g. for modelling employment transitions or for calculation of replacements rates).

The following policies tprhm_be and tin_be calculate the final taxes.

After calculation of taxes due there is also a special contribution for social security (due by all wage earners). This contribution is computed separately since it is applied after taxes and hence does not influence net taxable income.

Following the contributions and taxes, the benefits are simulated. Family allowances include the birth allowance and the child benefits. Next, the most important categories of social assistance are simulated (income support as well as income support for the elderly). The latter is switched off in the baseline (see section 2.3.4. for more details).Simulated policies [2014 – 2017]

Section	Policy	Description	Main output	Year			
				2014	2015	2016	2017
2.4.0	tscee_be	Employee social insurance contribution	tscee_s; tscdb_s; tsceerd_s	X	X	X	X
2.4.0	tscer_be	Employer social insurance contribution	tscer_s; tscerrd_s	X	X	X	X
2.4.3	tscpe_be	Pensioners contributions to health and disability insurance and solidarity contribution	tscpe_s	X	X	X	X
2.4.2	tscse_be	Self-employed social insurance contribution	tscse_s	X	X	X	X
2.4.5	tci_be	Flemish Care Insurance contribution	tci_s	OFF	OFF	OFF	OFF
2.5	tintace_be	Deduction of professional expenses	tintace_s	X	X	X	X
2.5	tinwh _be	Withholding income tax; withholding special social insurance contribution	tinwh_s; tscwheesp_s	OFF	OFF	OFF	OFF
2.3.5	bun_be	Unemployment benefits	bun_s	TOGGLE	TOGGLE	TOGGLE	TOGGLE
2.3.5	byr_be	Early retirement benefit	byr_s	n/a	n/a	n/a	n/a
2.8	tprhm_be	Advance levy on immovable property	tprhm _s	X	X	X	X
2.5	tin_be	Income tax	tin_s; tinkt_s	X	X	X	X
2.4.2	tsceesp_be	Special social insurance contribution	tsceesp_s	X	X	X	X
2.3.2	bchba_be	Birth allowance	bchba_s	X	X	X	X
2.3.1	bch_be	Child benefits	bch_s	X	X	X	X
2.3.3	bsa_be	Income support	bsa_s	X	X	X	X
2.3.4	bsaoa_be	Income support for the elderly	bsaoa_s	OFF	OFF	OFF	OFF

2.2.2 Structural changes in simulated policies, 2011-2017

- ***Unemployment benefit***

a. Increased dependency of benefit amounts on time spent in unemployment

From 2013 onwards, the unemployment benefits become more dependent on the time that is spent in unemployment and one's work history before becoming unemployed. Benefits during the first three months are increased, and are thereafter decreased more rapidly over time. Also minimum limits for single persons and heads of family are lowered. Exceptions apply for persons with a work history of more than 20 years, for elderly unemployed (55+), and persons with a disability of at least 33%.

A complex bracket system with more than 60 categories is introduced, making the amount of benefit received closely dependent on the time spent in unemployment and previous work history. Because exactly this information is lacking from the SILC data, the simulation of the unemployment benefits is only a rough approximation.

b. Waiting period

The waiting period to receive unemployment benefits after studies is changed in 2012 from an age-dependent system to an age-independent system.

- ***The federal tax shift***

As of 2016, the first of a series of "tax shift" measures have been implemented. This "tax shift" was conceived by the new federal government, which took office in October 2014, and consists of a considerable number of tax measures set to roll out between 2016 and 2020. The aim is to shift the burden of taxes and social security contributions away from labour towards non-labour sources of income such as sales (indirect taxes) and capital income. The measures that have already been implemented as of 2016 will be discussed in more detail further on. Table 4 provides a broad overview of the full set of measures which are to be implemented between 2016 and 2020 as part of the federal tax shift:

Table 3. Overview of the federal tax shift for the period [2016 – 2020]

	Impact on EUROMOD?
Tax decreases	
Personal income tax	
° Introduction of one uniform tax free amount (as of January 2020)	Yes
° Abolition of the 30%-bracket in the federal tax schedule (as of January 2018)	Yes
° Increase of the upper limit of the 40%-bracket in the federal tax schedule (as of 2019)	Yes
° Introduction of one uniform rate of 30% for the lump sum deduction of professional expenses of employees (as of January 2018)	Yes
° Expansion of the fiscal workbonus (as of August 2015)	Yes
Social security contributions	
° Expansion of the reduction of social security contributions for employees (the social workbonus) (as of August 2015)	Yes
° Decrease of social security contributions for employers from 32.4% of gross	Yes

° earnings to 25% of gross wages (as of 2018)	
° Decrease of social security contributions of self-employed from 22% of gross earnings to 20.5% of grow earnings (as of 2018)	Yes
° Expansion of the exemption of social security contributions for the first six recruitments by SMEs	No
Corporate income tax	
° Increase of tax deduction for investments by small companies from 4% to 8% (as of 2016)	No
° New tax deduction for investments in high-tech and start-ups	No
Tax increases	
Indirect taxes	
° Increase of VAT on electricity from 6% to 21% (as of September 1st 2015)	No
° Gradual increase of excise taxes on diesel, alcohol and tobacco products (between November 1st 2015 and January 2020)	No
° Introduction of a so-called "health tax" in the form of an increase in excises on sugar-containing beverages (as of January 1st 2016)	No
Capital income taxes	
° Increase of regular capital income tax from 25% to 27% (withheld at the source)	Yes
° Introduction of a so-called "speculation tax" on capital gains from the sale of stocks and related financial instruments within six months after their acquisition	No
° Introduction of a new tax (the so-called "Cayman tax") on capital income to Belgian residents originating from legal structures abroad	No
° Increase of taxes on financial transactions concerning stocks, real estate certificates and capitalization funds	No
Corporate income tax	
° Expansion of the system of "liquidation reserves" which allows small companies to assign part of their profits to a so-called liquidation reserve which is subject to an anticipatory tax of 10%, but on which later on no capital income tax is due when the reserve is liquidated to pay out dividends to the shareholders	No
° Introduction of an additional contribution of the financial sector in the form of the partial exclusion of bank capital from the tax deduction applicable to risk capital	No
° Introduction of a new tax on diamond traders equal to 0.55% of annual turnover	No
Miscellaneous	
° Non-indexation of certain tax expenditures until 2019 (such as tax credits for replacement incomes, the deduction for interests from savings in a savings account up to €1,880,…)	Yes
° Introduction of a partially advanced levy on retirement savings between 2015 and 2019 at a rate of 1% of pension capital	No
° Increase of court fees	

2.3 Social benefits

2.3.1. Child benefit (kinderbijslag / allocations familiales) (*bch_s*)

- ***Brief description***

Child allowance is paid to families with dependent children. In principle, children are dependent if they are younger than 18 years old. The exceptions to this rule are twofold. On the one hand, the child remains dependent until 21 if he or she is disabled. On the other hand, a child can remain dependent until the age of 25 if he or she is in full-time education (including higher and advanced education), not married, and whose net taxable income as well as the number of days a gainful occupation has been exercised do not exceed certain thresholds. The income thresholds are slightly higher for disabled children as well as for children of lone parents. In EUROMOD the child benefits are simulated for dependent children younger than 18 years and for children 18 until 25 years old if the child is in full time education. Child benefits for disabled children cannot be calculated because of limitations in the data. Income thresholds for dependent children are also not simulated in EUROMOD.

The amount of child benefits depends on the birth rank of the child. The oldest one gets rank 1, the second oldest rank 2 and all the following children rank 3. If the number of beneficiary children decreases the remaining ones get a lower rank. The second oldest then becomes rank 1, etc.

The simulated supplements to the child allowance include a yearly supplement , monthly age-related supplements and monthly social supplements[1]. The *yearly supplement* (previously called the "back to school-premium") is a yearly allowance for children in all schemes. The amount depends on the age of the child. *Age-related supplements* are the same for all schemes as well as for orphans and guaranteed family allowance. Only for the self-employed scheme there is a difference in that there is no age supplement for the youngest child that gives a right to child benefits nor is there an age supplement for a lone child. The *social supplements* are primarily for children of beneficiaries that receive a replacement income: retirement pension, survival pension, unemployment benefits (full-time and longer than six months in unemployment), and disability benefits. There are income conditions that must be met in order to be eligible for social supplements to child benefits.

- ***Definitions***

The benefit unit is the nuclear family (tu_cb_be). The child allowance is paid to the person responsible for the upbringing of the child (in EUROMOD, the head of the tax unit is the default).

- ***Eligibility conditions***

There is no additional eligibility rule apart from the presence of dependent children in the family. The actual amounts, however, can differ slightly among the contributory categories of the beneficiary.

The beneficiary, in general the father, opens a right to child allowance if his employer (or himself if he is self-employed) pays or has paid social security contributions. The relevant rules for the computation of child allowances used to depend on the contribution scheme to which the employer of the beneficiary or the beneficiary himself contributed, but as of July 2014 the three contribution schemes (for employers, self-employed and civil servants) are unified. In case the beneficiary is currently not active on the labour market he can open a right to child allowance if he is sick, disabled or inactive due to occupational hazard or disease, if he is unemployed, or if he is a pensioner. If a beneficiary did not contribute to any of the social security contribution schemes he or she may still open a right to child allowance through the system of guaranteed child allowance. The guaranteed child allowance is means tested.

In EUROMOD, the schemes of child allowance for wage earners, child allowance for self-employed and the guaranteed child allowance are simulated for the years before 2014. The scheme of child allowance for wage earners in the public sector is the same as the scheme of child allowance for wage earners in the private sector. From 2014 onwards only two schemes of child allowances are simulated: one system for employees, self-employed and wage earners in the public sector and another system for the guaranteed child allowances.

To be eligible for child allowance at least one of the parents of the dependent child has to receive an income from employment or self-employment, a sickness or disability benefit, an old age pension, a survivor pension, an early retirement pension or and unemployment benefit. If a person is not eligible for child allowances and yet is a parent of a dependent child, he or she is eligible for the guaranteed child allowance.

[1] Supplements for disabled children are not simulated as this information is not available in the data.

- ***Income test***

The guaranteed child allowance is means tested and is for the most destitute families only. To be eligible the own means of the beneficiary and his or her partner (TU: tu_cb_be) may not exceed limits that are increased by 20% for each child from the second onward. Child benefits, scholarships, maintenance allowances, alimony, army indemnities, rents obtained by non-insured pensioners, allowances from private or public assistance (social assistance) and cadastral income are not included in the means test. The following formula is applied:

*Base amount + base amount * 0.2 *[number of children in the Tax Unit (tu_cb_be)]*

Table 4. Quarterly maximum amounts means test of the guaranteed child allowance [2014 – 2017]

	2014	2015	2016	2017
Base amount *($CB_GuaranteedMT)*	4062.82	4062.82	4144.08	4144.08

In order to be eligible for social supplements to child benefits, there are also income conditions that must be met. For lone parents with children the total amount of the replacement incomes and incomes from professional activity may not exceed the amounts of the means test depending on the household type.

Table 5. Means test for social supplements (gross amounts per month) [2014 – 2017]

	2014	2015	2016	2017
Lone parents *($CB_MaxIncSingleParent)*	2309.58	2338.47	2385.24	2385.24
Couples *($CB_MaxIncCohabiting)*	2385.65	2414.54	2462.83	2462.83

- ***Benefit amount***

The actual *child allowance* received increases with the rank of the child. This gives Belgium a pro-natalist family benefit scheme (see Table 9).

Table 6. Amounts of the ordinary child allowance per month [2014 – 2017]

	2014	2015	2016	2017
Rank 1 *($CB_BaseAmtEmpCh1)* (oldest child)	€90.28	€90.28	€92.09	€92.09
Rank 1, self-employed ($CB_BaseAmtSelfCh1)	n.a.	n.a.	n.a.	n.a.
Rank 2 *($CB_BaseAmtEmpCh2)*	€167.05	€167.05	€170.39	€170.39
Rank 3 *($CB_BaseAmtEmpCh3)*	€249.41	€249.41	€254.40	€254.40

The yearly supplement increases with the age of the child. Table 8 shows the premium for the different age groups and Table 9 shows the supplement for persons who are eligible for one of the other supplements (i.e. social supplements and/or supplements for lone parents, disabled children or orphans). From 2013 onwards, children who are entitled to one of the aforementioned supplements receive an increased yearly supplement.

Table 7. Amounts of the yearly supplement [2014 – 2017]

	2014	2015	2016	2017
0-5 *($CB_SchoolAge0to5)*	€20.00	€20.00	€20.40	€20.40
6-11 *($CB_SchoolAge6to11)*	€43.00	€43.00	€43.86	€43.86
12-17 *($CB_SchoolAge12to17)*	€60.00	€60.00	€61.20	€61.20
18-25 *($CB_SchoolAge18to24)*	€80.00	€80.00	€81.60	€81.60

Table 8. Amounts of the yearly supplement for persons eligible for other supplements [2014 – 2017]

	2014	2015	2016	2017
0-5 *($CB_SchoolAge0to5)*	€27.60	€27.60	€28.16	€28.16
6-11 *($CB_SchoolAge6to11)*	€58.59	€58.59	€59.76	€59.76
12-17 *($CB_SchoolAge12to17)*	€82.02	€82.02	€83.66	€83.66
18-25 *($CB_SchoolAge18to24)*	€110.42	€110.42	€112.62	€112.62

Age-related supplements also increase with the age of the child (this also goes for orphans and guaranteed family allowance). The calculation rules are summarized in Table 10.

Table 9. Amounts of the age-related supplements per month [2014 – 2017]

Date of Birth	Age	Amount of supplement			
first rank		**2014**	**2015**	**2016**	**2017**
6 to 11 years *($CB_SuppChAge6to11a)*	6-11	€ 15.73	€ 15.73	€16.04	€16.04
12 to 17 years ($CB_SuppChAge12to17a)	12-17	€23.95	€23.95	€24.43	€24.43
18 to 24 years *($CB_SuppChAge18to24b)*	18-24	€33.69	€33.69	€28.16	€28.16
higher rank					
- *($CB_SuppChAge6to11d)*	6-11	€31.36	€31.36	€31.99	€31.99
- *($CB_SuppChAge12to17d)*	12-17	€47.92	€47.92	€48.88	€48.88
- *($CB_SuppChAge18to24d)*	18-24	€60.93	€60.93	€62.15	€62.15

Social supplements can be granted according to the social status of the beneficiary of the child benefit. The social supplements are primarily for children of beneficiaries that receive a replacement income: retirement pension, survival pension, unemployment benefits (full-time and longer than six months in unemployment), and disability benefits. The amounts of the supplements are summarized in Table 11. For the disabled beneficiaries, the amounts differ for the first child. For lone parents social supplement is higher from the third child and following children.

Table 10. Amounts of the social supplements per month [2014 – 2017]

	2014	2015	2016	2017
Rank 1 *($CB_SocSuppCh1)*	€45.96	€45.96	€46.88	€46.88
Disabled employees *($CB_SocSuppCh1EmpDisab)*	€98.88	€98.88	€100.86	€100.86
Rank 2 *($CB_SocSuppCh2)*	€28.49	€28.49	€29.06	€29.06
Rank 3 *($CB_SocSuppCh3HH)*	€5	€5	€5.10	€5.10
Lone parent *($CB_SocSuppCh3LP)*	€22.97	€22.97	€23.43	€23.43

2.3.2 Birth allowance (geboortepremie / prime de naissance) (*bchba_s*)

- ***Brief description***

The birth allowance is a universal lump sum benefit to the parents of a new-born baby. The amount only depends on the rank of the child (first-born or not). If the first-borns are twins then the amount for a first-born applies for both. A birth allowance can also be given in case of miscarriage as long as the pregnancy has lasted at least 180 days.

- ***Definitions***

The benefit unit is the nuclear family (tu_cb_be), and the birth allowance is usually assigned to the same beneficiary as the child allowance.

- ***Eligibility conditions***

There is no eligibility condition apart from being the parent of a new-born baby. The amounts for the birth allowance are independent of the contribution scheme.

- ***Income test***

None.

- ***Benefit amount***

Table 11. Birth allowance amounts [2014 – 2017]

	Amount in euro			
	2014	2015	2016	2017
First born	1223.11	1223.11	1247.58	1247.58
Following births	920.25	920.25	938.66	938.66

2.3.3 Income support (leefloon / revenu d'integration sociale) (*bsa_s*)

- ***Brief description***

If the means of a person are less than a certain threshold, that person is eligible for income support up to the level of the minimum income. In order to receive income support, one needs to apply for it at the offices for public assistance (CPAS). These centers have some discretionary power over the acceptance. For example, the CPAS can demand an individualized project for social (re)integration that the applicant has to agree to and follow in order to get and/or keep income support. Here we assume full take-up (and acceptance of the application by the CPAS).

- ***Definitions***

The benefit unit is the nuclear family – the couple (cohabiting or married) or single adult plus any dependent children. In the social assistance legislation three categories are distinguished:

- category one: applicant living with partner and no dependent family
- category two: single (no partner, no dependents)
- category three: person with dependent family

If the applicant falls under category one, the income of the partner is accounted for in the determination of the income support level for the part that exceeds the income support level. If the applicant falls under category three, all of the partner's income, if there is a partner, is taken into account for the calculation of income support. In this case the right for his/her spouse is automatically covered, i.e. (s)he cannot claim for income support, and each spouse/partner gets half of the income support amount.

- ***Eligibility conditions***

Income support can be granted to all adult (>=18) residents living in Belgium. It can be extended to minors if they no longer have a legal guardian following a marriage, if they are pregnant, or if they have dependent children. The focus here is on adults from 18 to 64 (from the age of 65 one is eligible for income support to the elderly). To become eligible, one has to apply for income support at the CPAS, which means the benefit is not automatically granted.

- ***Income test***

If the means of a person are less than a certain threshold that person is eligible for income support up to the level of the minimum income, i.e. the amount of income support is equal to the minimum existence level minus the own means. The means include all factual income, not only official income. The income support is for unlimited duration but each year the CPAS will make a re-assessment of the personal situation of the applicant and can withdraw the income support based on the results of that inquiry. It belongs to the discretionary power of the CPAS to do the re-assessment on a more frequent basis. The applicant/beneficiary is bound to provide all the necessary information and to contact the CPAS if something changed in his or her personal (financial) situation.

Own means include the following:

- net occupational income (from employment)[2]
- replacement incomes
- income from real estate[3]
- income from equity: the first €6,200 of (financial) capital is not taken into account. For the part between €62,000 and €12,500, 6% is taken as income from capital and for the amount higher than €12,500 10% is taken into account as income from capital[4]

[2] To encourage employment for social assistance beneficiaries the first three years of employment €234.55 of net occupational income is discarded (not simulated).

[3] The calculation for income from real estate is the following: non-indexed cadastral income with an exemption of €750 plus €125 per dependent child (=child that gives right to child benefits). The result is then multiplied by 3 and taken into account in the means test. In case the property is rented one takes the rent received unless this should be less than the amount obtained when using the cadastral income. As social assistance is an individual right the income from real estate will be multiplied by the fraction representing the ownership of the person in the property (in case of shared ownership).

[4] Income stemming from the sale or donation of propert(y)(ies) within a period of 10 years preceding the application for social assistance. The same schedule applies as for income from capital. This is not simulated due to lacking information.

The following income components are not taken into account:

- benefits in-kind (such as meals)
- social assistance
- child benefits
- alimony for children
- study grants
- refundable tax credit for children

- ***Benefit amount***

Table 12. Base amounts for income support per month [2014 – 2017]

	2014	2015	2016	2017
Category 1	544.91	544.91	578.27	578.27
Category 2	817.36	817.36	867.40	867.40
Category 3	1089.82	1089.82	1156.53	1156.53

Table 13. Disregarded amounts for income support per year [2014 – 2017]

	2014	2015	2016	2017
Category 1	155	155	155	155
Category 2	250	250	250	250
Category 3	310	310	310	310

If eligible after all calculations the final amount is equal to the base amount minus own income.

- ***Treatment of the simulated income support in EUROMOD***

In the baseline system **the simulated amounts of income support with take-up correction are included in the disposable income concept** rather than the amounts recorded in the EU-SILC. We adjust for the non take up of benefits with a simple random **non take-up correction** by applying the take-up proportion estimated as the ratio between the caseload recipients reported by the Official Statistics and those simulated to be entitled by EUROMOD. Once the simulated benefit is switched on in the spine, the correction for non take up is, by default, switched on as well. To switch the take-up correction off, a user needs to switch off the relevant policy sheet (BTA_be) in the spine. The take-up probability mentioned above is defined in the relevant policy sheet at the end of the simulation. A user can change these probabilities or switch off the take-up correction.

However, the non take-up correction is still very rough and does not satisfactorily reflect the real take-up issues playing (large discretionary power of the CPAS, detailed means-test). The refinement of this is one of our planned further developments.

2.3.4 Income support for the elderly (inkomensgarantie voor ouderen / la garantie de revenus aux personnes âgées) (*bsaoa_s*)

- ***Brief description***

Income support for the elderly is designed in the same way as the regular income support, but available for persons aged 65 or older. The categories are different than in the regular income support, as are the amounts.

- ***Definitions***

There is a distinction for persons living alone and those living with others at the same address (presumably couples). In fact a person without a partner but living with (a) minor child(ren) or adult child(ren) for whom child benefits are received and/or relatives (descendants) are considered as living alone and are eligible to receive the increased amount. Income support for the elderly is an individual right whether being married or not.

- ***Eligibility conditions***

All persons aged 65 or above are eligible to receive income support for the elderly.

- ***Income test***

Income on the benefit unit level (tu_oa_be) is taken into account as follows:

- 75% of gross employment income other than self-employment income
- gross income from self-employment minus incurred expenses (we assume expenses to be 5% as is the case for the lump sum expenses in the personal income tax)
- Income from capital. Similar rules apply as for income support: €6,200 exempted, from €6,200 to €18,600 consider 4% as income and beyond €18,600 take 10% as income from capital
- Income from real estate[5]
- pension income minus paid alimony and the result accounted for at 90%
- An additional €5,000 of gross income from employment and/or self-employment is exempt

Not counted are:

- income support
- alimony received
- child benefits

As the income support is an individual right, in the calculation of the benefit amount (for the individual) the income used in the means-test will be divided by the number of persons in the benefit unit.

- ***Benefit amount***

Table 14. Base amounts for income support for the elderly, per person per year [2014 – 2017]

	2014	2015	2016	2017
Living alone	€12,140.34	€12,140.34	€12,630.92	€12,630.92
Living with partner	€8,093.56	€8,093.56	€8,420.61	€8,420.61

Table 15. Disregarded amounts in the income assessment for income support for the elderly, per person per year [2014 – 2017]

	2014	2015	2016	2017
Living alone	€1,000	€1,000	€1,000	€1,000
Living with partner	€625	€625	€625	€625

[5] Non-indexed cadastral income, with an exemption of €743.68 plus €123.95 per dependent child (=eligible for child allowance) (amounts remain constant over 2009-2017). The result is multiplied by 3 to get the income from real estate. If the property is rented the rent is taken into account, unless this should be less than the amount when cadastral income is taken. The resulting amount is multiplied by the part the person has in the property in case of shared ownership.

The resulting income support is the base amount minus the income of the applicant.

- ***Treatment of the simulated income support for the elderly in EUROMOD***

The simulation of the income support for the elderly is implemented in the system but it is switched off in the baseline system and it is not included in the simulated disposable income.

It is unclear whether in the SILC survey this benefit was mistakenly recorded as regular pension income in the majority of the cases and is as such already included in the data. This hinders a correct interpretation of the simulated values.

2.3.5 Unemployment benefits (werkloosheidsuitkering / allocation de chômage) (*bun_s; byr_s*)

- ***Brief description***

In the employment legislation one can distinguish three main groups (cfr. section 1.3.B): the indemnified unemployed, support for employed people, and support for the employed who reduce their working hours. The simulation of unemployment benefits will only be for the first group (also the most important group in size) and to a limited extent. The group of unemployed includes the unemployed after employment, the unemployed after finishing studies, the older unemployed and the early retired. In EUROMOD the unemployed after employment are simulated (early retirement is simulated separately). The unemployment benefits are implemented following the EUROMOD modeling conventions. Due to the limitations of the input data, the simulated unemployment benefits can only be used to calculate replacements rates.

From 2013 onwards, the *unemployment benefits become more dependent on the time that is spent in unemployment and one's work history before becoming unemployed. Benefits during the first three months are increased, and are thereafter decreased more rapidly over time. This results in a complex bracket system with more than 60 categories, making the amount of benefit received closely dependent on the time spent in unemployment and previous work history*.

- ***Definitions***

Unemployed are subdivided into three categories according to household situation: 1) unemployed with dependent family; 2) singles; and 3) cohabitating unemployed (living with a partner,but no dependents).

To determine whether a person is dependent or not one has to look at the earnings of this person. Reported amounts reported are for 2017.

Earnings from a professional activity of the partner are not taken into account if they do not exceed €765.97 gross per month and stem from employment as wage earner. This implies that any self-employment income by the partner excludes the latter of being dependent, i.e. the unemployed will not be categorized as an unemployed with dependent family.

Pension benefits or benefits following industrial accidents or work-related illness are not taken into account as long as they do not exceed the maximum level per month.

Other benefits, such as unemployment benefits and sickness and disability benefits other than industrial accidents or work-related illness, are always taken into account to determine whether the partner is dependent or not. It means that having unemployment benefits makes the partner not dependent.

If the unemployed lives with children then the income of a child (professional activities, unemployment benefits, and pensions, sickness or disability benefits) is not taken into account if it does not exceed €410.19 in case of income from professional activities or if it does not exceed €442.78 in case of unemployment benefits and sickness or disability benefits.

If the unemployed also lives with relatives up to the third degree, ascendants are considered dependent if their income does not exceed €1,322.02 (households without dependent children) or €2,144.34 (households with dependent children).

- ***Eligibility conditions***

Unemployment benefits after employment (general case)

To be eligible to receive unemployment benefits an inactive person has to be in search of work. The unemployed person has to be involuntarily unemployed and without wages whatsoever. He or she has to be available for the labour market and has to be and remain registered as a person in search of work. Furthermore, the unemployed has to reside in Belgium, be fit for work, and has to meet age conditions.

Unemployment benefits after studies

For students following graduation to be entitled to unemployment benefits they must prove a period of inactivity. The system was reformed in 2012 and renamed “professional integration time”. The waiting period of “professional integration time” is 310 days for persons under the age of 25.

Unemployment benefits for older employees (werkloosheids met anciënniteitstoeslag/ chômage avec d'ancienneté)

Older unemployed, aged 50 or more who had an active career of at least 20 years and who were unemployed for at least one year, use to be entitled to a seniority supplement. This system was abolished as of January 1st 2015.

Early retirement benefits (werkloosheid met bedrijfstoeslag/ chômage avec complement d’entreprise)

To be eligible for conventional early retirement benefits the following conditions must be met:

- employee has to be fired by employer
- employee must be entitled to an additional supplement, paid by the employer or some specific fund, on the basis of a collective labour agreement
- employee must be eligible for regular unemployment benefits
- employee must be at least 62 years old (58 if subject to a special scheme[6] for early retirement)
- employee must have had an active career as wage earner of at least 40 years for men and 32 years for women (this can be lower if subject to a special scheme for early retirement).

- ***Benefit amount***

Unemployment benefits after studies

The unemployment benefits for young unemployed (younger than 25) with no work history (after the so-called “professional integration time”) are as follows: For young unemployed a further distinction is made within the category of cohabitating partners between normal and “privileged” partners. A partner is considered to be a “privileged” partner if his/her income consists solely of a lower unemployment benefit. In that case you are entitled to a higher benefit amount.

[6] This applies to employees in arduous occupations and night work, to disabled persons and in case of the restructuring of the firm.

Table 16. Calculation table for unemployment benefits for young unemployed with no work history [2014 – 2017]

	Benefit per day			
	2014	2015	2016	2017
Unemployed with dependent family	€42.53	€42.53	€44.24	€44.24
Single unemployed				
Younger than 18	€12.09	€12.09	€12.57	€12.57
18 or older but younger than 21	€18.99	€18.99	€19.76	€19.76
21 or older	€31.46	€31.46	€32.73	€32.73
Cohabitating unemployed				
Not cohabitating with privileged partner				
Younger than 18	€10.25	€10.25	€10.67	€10.67
18 or older	€16.36	€16.36	€17.03	€17.03
Cohabitating with privileged partner				
Younger than 18	€10.86	€10.86	€11.29	€11.29
18 or older	€17.44	€17.44	€18.14	€18.14

For young unemployed a further distinction is made within the category of cohabitating partners between normal and “privileged” partners. A partner is considered to be a “privileged” partner if his/her income consists solely of a lower unemployment benefit. In that case you are entitled to a higher benefit amount.

Unemployment benefits after employment

For unemployed after a period of employment the unemployment benefit depends on household characteristics, as for the young unemployed (after studies), and on past labour market histories. In principle, benefits for unemployed after a period of employment are based on their (lost) wages. By applying the applicable percentage rule on the (lost) wage, the amount of the unemployment benefit is obtained. In the majority of cases, limitations apply so that the unemployment benefit varies between a maximum and a minimum level.

The percentages and lower and upper limits for unemployment benefits after a period of employment are given in the tables below. If not all conditions of previous earnings are fulfilled, the unemployment benefit is calculated using the reference wage of €1,531.93 (in 2017). Wages are only taken into account until a maximum wage:

Table 17. Wage ceilings for unemployment benefits [2017]

	Period	Maximum Monthly amount
Highest wage ceiling	1st to 6th month	€2,547.39
Middle wage ceiling	7th to 12th month	€2,374.21
Lowest wage ceiling	From 13th month if cohabitants or dependent persons	€2,218.65
Specific wage ceiling	From 13th month if single unemployed	€2,170.36

The amount of unemployment benefits is calculated as follows:

Table 18. Calculation table for unemployment benefits after employment [2017]

	Unemployed with dependent family (A)	Single unemployed (N)	Cohabitating unemployed (B)
Minimum amount (F)	€45.41	€38.14	€28.60

First period (12 months)

1st to 3rd month	$65\% \times w$	$65\% \times w$	$65\% \times w$
4th to 6th month	$60\% \times w$	$60\% \times w$	$60\% \times w$
7th to 12th month	$60\% \times w$	$60\% \times w$	$60\% \times w$
Second period (max. 36 months)			
13th to 14th month	$60\% \times w$	55%	40%
+ 0-10 months[7]	$60\% \times w$	55%	40%
+ 1-6 months[7]	$60\% \times w - \frac{1}{5} \times A$	$55\% \times w - \frac{1}{5} \times A$	$40\% \times w - \frac{1}{5} \times A$
+ 1-6 months[7]	$60\% \times w - \frac{2}{5} \times A$	$55\% \times w - \frac{2}{5} \times A$	$40\% \times w - \frac{2}{5} \times A$
+ 1-6 months[7]	$60\% \times w - \frac{3}{5} \times A$	$55\% \times w - \frac{3}{5} \times A$	$40\% \times w - \frac{3}{5} \times A$
+ 1-6 months[7]	$60\% \times w - \frac{4}{5} \times A$	$55\% \times w - \frac{4}{5} \times A$	$40\% \times w - \frac{4}{5} \times A$
Third period			
indefinitely	F	F	F

Legend: $A = 60\% \times w - F$*; en* w *= last earned wage*

During the first year of unemployment the benefits are the same for each category, beginning at a replacement rate of 65% in the first three months and decreasing to 60% for the remainder of the first year (with maximum amounts as discussed in Table 18). After the first year the replacement rate decreases to 55% for single unemployed and to 40% for cohabitating unemployed. During the second year of unemployment the benefits systematically decrease further at rate of one fifth of the difference between the last earned wage and the minimum benefit amount in each of five stages (the length of which depends on the work history of the unemployed) until the benefit eventually hits the level of the minimum benefit amount (this happens at the latest after 48 months of unemployment).

Conventional early retirement

The early retirement benefit paid by the unemployment office is a percentage of lost but limited wages (ALDW). The benefits are calculated as follows (amounts for 2017):

Table 19. Calculation table for conventional early retirement benefits [2017]

	Rule	Maximum
Early retirement benefits	60% of ALDW	€49.58 per day

The minimum legally required amount of the additional benefit to be paid by the employer is equal to half the difference between the net wages and the unemployment benefit. Net wages are gross wages minus social security contributions and withholding tax.

- ***Simulation of Unemployment Benefits in EUROMOD***

Unemployment benefits after employment are parameterized in EUROMOD but they are switched to *toggle* in the baseline. In order to simulate the unemployment benefits (mainly to calculate replacement rates), some additional variables are included in EUROMOD:

Lnu: a dummy variable for new unemployed

liwmy_a: number of months in work in the year preceding unemployment (for new unemployed)

[7] Depending on the length of the work history.

yempv_a: monthly gross wage in the year preceding unemployment (for new unemployed)

yem_a: monthly gross wage for new employed (previously yem00)

lhw_a: average weekly working hours for new employed (previously lhw00)

Such implementation is intended to simulate unemployment benefits for individuals observed in work (i.e. with positive earnings) and it is not intended to replace the recorded unemployment benefits (i.e. bun) of individuals observed in unemployment (i.e. without earnings necessary to simulate the unemployment benefits). As a consequence, the variable bun should not be modified.

The simulated unemployment benefits are recorded in the variable bun_s. This variable is already included in the relevant income lists (e.g. taxable income). The variable bun_s is initialized to 0 in the policy *InitVars_be* in order to avoid any warning message when the policy *bun_be* is switched off/toggle.

Because this simulation exercise serves the specific purpose of simulating the unemployment benefit in a hypothetical scenario it cannot serve to replace the recorded unemployment variable, and the variable bun_s cannot be macrovalidated with external statistics. The variable bun_s can only be simulated for the first year of unemployment.

2.4 Social contributions

2.4.1 Employee social contributions and employer social contributions (*tscee_s, tscer_s*)

- ***Wage earners on the private labour market***

First the percentages will be listed for regular social insurance contributions. In some cases social insurance contributions can be reduced. The reductions will be treated in a later section.

Social insurance contributions before deductions

In total, social insurance contributions amount to 13.07% of gross earnings for employees, and to 30.4% to 37.4% of the gross wage for the employers, dependent on the size of the firm and whether the employee is a blue or white collar worker. For instance, blue collar workers don’t pay social insurance contributions on their single holiday earnings (corresponding to 8% of their yearly wage). Thus, social insurance contributions for blue collar workers are calculated on 108% of their gross wage. Employees are eligible for a reduction in social insurance contributions, called “workbonus”, if they satisfy certain income conditions.

The basic percentage for the calculation of the employer contributions used to correspond to the sum of the applicable percentages for the different components of the social insurance system for wage earners (see table 25). However, following the 6th State Reform this direct relationship between the employer contribution and the different components of the social insurance system has been severed to create a so-called “globalized” basic percentage. In 2015 this globalized percentage was equal to the previous sum total of the different components[8], but as of April 1st 2016 this base percentage is lowered to 22.65% as part of the first phase of a reform of the employer contribution scheme aimed at reducing the general or facial rate[9] of the employer contribution to 25% by 2018 (see Table 22).

[8] Notably 24.92% for employees in the private sector, 24.82% for civil servants without statutory service and 17.82% for statutory civil servants (cfr. www.socialsecurity.be).

[9] Meaning the regular rate (base percentage + wage moderation) before special contributions and reductions.

Table 20. Former calculation of basic percentage for employer social insurance contributions [2015]

Components of social insurance system	Employer contributions
Pensions	8.86
Sickness and disability	2.35
Medical care	3.8
Unemployment	1.46
Family benefits	7
Accidents at work	0.3
Work-related illness/disease	1
Educational leave	0.05
Work integration/guidance programs for youth	0.05
Childcare	0.05
Basic percentage	**24.92**

Table 22 outlines the changes and the timeline of the proposed reform of the employer contributions for social insurance. In 2015 the general rate was 32.4%. This rate could then be reduced according to the so-called "structural deduction" based on the level of income of the worker (see further). After application of this structural deduction scheme, the facial rate of 32.4% was typically reduced to an effective rate between 19 and 29% of gross earnings.

Table 21. Timeline of proposed reform of employer contributions for social insurance as part of the federal tax shift [2016-2020]

Contribution rates (% of gross earnings)	**Pre-reform**	**2016**	**2018**	**2020**
Base rate	24.92%	22.65%	19.88%	19.88%
+ Contribution for wage moderation	7.08%	6.95%	5.12%	4.32%
+ Additional contribution for wage moderation for white collars	0.40%	0.40%	0.00%	0.00%
Facial (or general) rate	32.40%	30.00%	25.00%	24.20%

The proposed reform contains a reduction of the facial rate to 22.65% in 2016 and a further reduction to 19.88% in January 2018. The so-called wage moderation rate will be reduced from 5.67% to 4.27% in 2018. All this translates into a reduction of the facial rate for the employer contribution to social insurance from 32.40% in 2015 to 30% in 2016 and a further reduction to 25% in 2018.

The proposed reduction in the general/facial rate will be accompanied by a simplification of the "structural deduction" of employer contributions (see further).

Table 22. Employee and employer social insurance contribution for wage earners on the private labour market [2017]

	blue collar workers % of gross earnings at 108%			white collar workers % of gross earnings		
	employee	**employer**	**total**	**employee**	**employer**	**total**
General contributions	**13.07**	**22.65**		**13.07**	**22.65**	
Pensions	7.50			7.50		
Medical care	3.55			3.55		
Disability benefits	1.15			1.15		
Unemployment	0.87			0.87		
Wage moderation		**6.95**			**7.35**	
Wage moderation		6.95			6.95	
Extra wage moderation white collars					0.40	
Annual vacation blue collar		**5.65**				
Extra unemployment		**1.69**			**1.69**	
Extra unemployment insurance for companies with 10 employees or more		1.60			1.60	
Extra contribution wage moderation for companies with 10 employees or more		0.09			0.09	
Special contributions		**0.13**			**0.13**	
(Re)employment of vulnerable groups		0.10			0.10	
Special contribution work related illness		0.02			0.02	
Special contribution asbestos fund		0.01			0.01	
Company closing fund						
1 to 19 employees: general		0.15			0.15	
1 to 19 employees: wage moderation		0.01			0.01	
20 or more employees: general		0.18			0.18	
20 or more employees: wage moderation		0.01			0.01	
Temporary unemployment		0.13			0.13	
Wage moderation		0.01			0.01	
Global total						
1 to 9 employees	13.07	35.68	48.75	13.07	30.43	43.50
10 to 19 employees	13.07	37.37	50.44	13.07	32.12	45.19
20 or more employees	13.07	37.40	50.47	13.07	32.15	45.22

Single holiday earnings for civil servants are equal to the wage that would have been earned when not on holiday and the double holiday earnings consist of a lump sum amount and a variable part in percent of gross annual earnings.[10]

For white collar workers the percentages are applied on gross earnings received while working and on gross single holiday earnings. For blue collar workers the percentages are applied on 108% of their gross remunerations while working (and not on holiday earnings). In the case of blue collar workers single and double holiday earnings are not part of the remuneration concept on which social insurance contributions are levied. Moreover, white and blue collar workers also have to pay social insurance

[10] The percentage of the variable part is linked to the evolution of the consumer price index that determines the gross wage due in March of the year of holiday.

contributions on their double holiday earnings. For white collar workers this is 13.07%; blue collar workers also have to pay 13.07% and the calculation base is 6.80% of 108% of gross earnings in the year preceding the year of the holiday.

As the single holiday earnings of blue-collar workers consist of 8% of the gross wage, total social insurance contributions amount to the same as if 13.07% on 100% of total earnings were levied. Because it is impossible to distinguish holiday earnings from the data, this is the way it is simulated in EUROMOD.

An additional 10.27% on 108% of annual earnings[11] of the previous year is due by employers for blue collar workers to finance holiday earnings.[12]

Employers' deductions on social insurance contributions

Employers can enjoy a structural deduction of social insurance contributions as a measure to stimulate employment. The structural deduction is applicable for all workers that are subject to all branches of social insurance. In reality this means that the structural deduction is for employers in the private sector only.

Beginning in 2016 this system of structural deductions will be downscaled and simplified as part of the tax shift. In 2016 the basic structural deduction is reduced from €462.6 per quarter to €438 per quarter for each full time worker.[13] This amount is increased for low income workers and high income workers according to the following scheme:

Table 23. Employers' deductions in social insurance contributions [2017]

Earnings in euro per quarter (I)	
Less than €6,030	400+0.162 *(6,030 - I)
More than €12,000	400+0.06*(I - 12000)

As of January 2018 the basic structural deduction as well as the deduction for high income workers will be abolished. Nevertheless, the deduction for lower incomes will be further strengthened in 2018 and again in 2019:

Table 24. Announced changes in employers' deductions in social insurance contributions [2018 – 2019]

Deduction as of…		
January 2018	0.1280 *(8850-I)	for earnings per quarter (I) less than €8,850
January 2019	0.1400*(9035-I)	for earnings per quarter (I) less than €9,035

Besides the structural deduction there are several specific target-group reductions that aim to increase the employability of certain more vulnerable groups (not simulated). The structural deduction can be combined with only one target-group reduction.

[11] Again, 108% is on annual earnings exclusive of holiday earnings. In the implementation, 100% is used, as the employment income variable includes holiday earnings.
[12] Because in EUROMOD we only dispose of the earnings of the current income year, it is assumed that earnings have remained the same as the preceding year in order to calculate these contributions.
[13] The lump sum reduction of €438 is not applicable to employers in the non-profit sector as they enjoy other reductions (not simulated).

To calculate the effective deduction, the above" theoretical" deduction needs to be further adjusted taking into account the effective labour time. The effective deduction is calculated as follows:

$$D = R \times \mu \times b$$

with

$$\mu = {}^{hours\ worked}/_{38\ hours}$$

and

$b = {}^{1}/_{\mu}$	if $\mu \geq 0.80$
$b = 1.18 + 0.28 \times (\mu - 0.55)$	if $\mu \geq 0.55\ and\ \mu < 0.80$
$b = 1.18$	if $\mu \geq 0.275\ and\ \mu < 0.55$
$b = 0$	if $\mu < 0.275$

Reductions in social insurance contributions for employees

Employees are eligible for a reduction in social insurance contributions, called "workbonus", if they satisfy certain income conditions. The income used in the means-test is based on full-time equivalent income and requires a distinction between labour time expressed in days and one expressed in hours and minutes. The full-time equivalent income (FTE) is calculated as follows:

Table 25. Determinantion of the full-time equivalent income concept [2012-2017]

Labour time measured in days	FTE=gross earnings * [(number of days per month corresponding to full-time position) / (number of days per month actually worked)]
Labour time measured in hours	FTE=gross earnings * [(number of hours per month corresponding to full-time position) / (number of hours per month actually worked)]

The basic reduction is then calculated according to the following rules:

Table 26. Employee social insurance reduction ("workbonus") [2014-2017]

Full-time equivalent income per month - bracket amounts for 2016	Monthly amount of reduction in euro 2014	2015	2016	2017
White collar workers				
<=1577.89	183.97	183.97	193.79	193.79
>1577.89 and <=2461.27	183.97-0.2082 * [FTE-1501.82]	183.97-0.2082 * [FTE-1501.82]	193.79-0.2194* [FTE-1577.89]	193.79-0.2194* [FTE-1577.89]
>2461.27	0	0	0	0
Blue collar workers				
<=1577.89	-	-	209.29	209.29
>1577.89 and <=2461.27	-	-	209.29-0.2369* [FTE-1577.89]	209.29-0.2369* [FTE-1577.89]
>2461.27	-	-	0	0

The actual reduction is calculated by taking the basic reduction (see Table 30) and multiplying it by the fraction of the actual number of hours or days worked (variable lhw) to the corresponding number for a full-time position (38 hours per week). If the number of hours worked per week is more than 38 than we just take a ratio of 1, i.e. working full-time. For a full-time employee the workbonus is equal to the basic amount.

The amount of the basic reduction is different for blue and white collar workers. Since we cannot distinguish between these types based on our data, only the amount for white collar workers is simulated in EUROMOD.

- ***civil servants***

The employers' contributions for civil servants with statutory service are different than those for wage earners. Moreover, there is a difference for civil servants working for the federal government and those working for local and provincial administrations[14]. Because the data did not allow making the distinction, all civil servants are simulated along the federal level scheme: a basic rate of 17.82%, an additional contribution for family allowances of 1.40% (which is not subject to wage moderation) and a contribution to wage moderation of 6.68% (=5.67%+0.0567*17.82%)

[14] The percentages for employees of local or provincial administrations are as follows

Type of contribution	Employee (% of gross earnings)	Employer (% of gross earnings)
Pensions	7.50	20.00
Sickness and disability benefits	3.55	3.80
Family benefits		5.25
Work-related illness		0.17
Wage moderation		7.48
Childcare		0.05

Social insurance contributions for wage earners on the public labour market without statutory service are the same as those for wage earners on the private labour market. The only exception is that wage earners on the public labour market without statutory service do not have to pay contributions for company closure (company closure fund).

In principle the (public) employer of wage earners in the public sector without statutory service enjoys the same deductions as private employers if the employees are subject to all branches of social insurance (where required).

Since civil servants are generally not covered by all branches of social insurance they are subject to reduced rates of employees' contributions. In principal the employees' contributions for statutory civil servants consist of a contribution for sickness and disability benefits (3.55%) and (as of 2015) of a contribution for pensions (7.50%).

Reductions employers' social insurance contributions

Also for employers in the public sector at local or provincial level programs exist that give right to a reduction of social insurance contributions (not simulated).

Reductions employees' social insurance contributions

Certain low wage civil servants of local and provincial administration might be eligible for a reduction of personal social insurance contributions if the monthly wage mass does not exceed a certain amount (not simulated).

2.4.2 Special social security contributions (*tsceesp_s*)

After calculation of taxes due there is also a special contribution for social security that we mention separately since it is applied after taxes and hence does not influence net taxable income. This contribution is withheld each month and shown on the payslip. The final amount, however, is calculated on (fiscal) household level (tu_couple_be) and is settled together with the final personal income tax. The special contribution is due by all employees subject to the social insurance scheme for wage earners.[15]

The final settlement – as it is implemented in EUROMOD baseline – will be calculated according to the following schedule:

Table 27. Special social insurance contribution (final settlement) [2012-2017]

Gross net taxable household income (I)	Yearly in euro
<=18592.02	0

[15] The monthly withheld amounts are as follows [2012-2017]:

Gross monthly earnings in € (at 108% for blue collar workers) (I)	Single or spouse without income from professional activity (monthly amount in €)	Spouse with income from professional activity (monthly amount in €)
<1095.10	0	0
>=1095.10 and <1945.39	0	9.30
>=1945.39 and <2190.19	0.076*(I-1945.39) with a max. of 18.60	0.076*(I-1945.39) with a min. of 9.30 and a max. of 18.60
>=2180.19 and <6038.83	18.60+0.011*(I-2180.19)	18.60+0.011*(I-2180.19) with a max. of 51.64
>=6038.83	60.94	51.64

>18592.02 and <=21070.96	0.09*(I-18592.02)
>21070.96 and <=60161.85	223.10+0.013*(I-21070.96)
>60161.85	731.28

2.4.3 Self-employed social contributions (*tscse_s*)

In the context of the tax shift, the rate for self-employed social contributions will be systematically reduced in the coming years. Starting in 2016, the rate will fall from 22% to 21.5%. In 2017 and 2018 this rate will be further reduced to 21% and 20.5%, respectively.

Before 2015, self-employed paid social insurance contributions on a quarterly basis based on their income in the third calendar year preceding the year of contribution. However, as of 2015 these contributions are calculated based on earnings in the current year. So, the social insurance contributions for self-employed in 2015 are calculated on the income earned in 2015.

If the spouse of a self-employed works as an assistant there are two possibilities: he or she opts for a "mini-statute" or a "maxi-statute". A mini-statute comprises only insurance for work-related illness and maternity benefits. A maxistatute guarantees the same social protection as enjoyed by the self-employed in main activity. In the latter case the normal rules to calculate social insurance contributions apply. In the case of a mini-statute the social insurance contributions are calculated differently, but this is not simulated.

The self-employed, besides paying the contributions according to the rules set out above, also have to participate in the working costs of the social insurance funds to which they are affiliated. The percentages range between 3.5% and 4.7% on the contribution amounts (not simulated). Calculation of social insurance contributions of self-employed

The basis of calculation is net earnings, i.e. gross earnings net of professional costs and possible losses.

Self-employed in main activity before retirement age

Table 28. Calculation structure of the social insurance contributions for self-employed in main activity before retirement age [2017]

Annual net indexed earnings (I)	**Annual social insurance contribution**
<=€57,415.67	max{2,797.28, 0.21*I}
>€57,415.67 and <=€84,612.53	min{12,079.23+0.1416*(I-57,415.67), 15,847.60}

The table above shows the calculation structure of the social insurance contributions for self-employed in main activity before retirement age in 2017. The structure of the calculation is similar in the other years, only the amounts are indexed. Minimum and maximum amounts for the contributions apply:

Parameters for the social insurance contributions for self-employed in main activity before retirement

	2014	**2015**	**2016**	**2017**
Minimum contribution per year	€2,943.32	€2,943.32	€2,797.28	€2,792.20
Maximum contribution per quarter	€4,110.32	€4,110.32	€3,961.90	€3,977.09

Self-employed in complementary activity before retirement age

When the self-employed activity is not the main activity of the individual, social insurance contributions are set differently. If net earnings are less than the threshold (cf. Table 30), no social insurance contributions are due. If net earnings exceed the threshold, the same schedule applies as for self-employed in main activity, but with a different minimum contribution.

Table 29. Social insurance contributions for self-employed in complementary activity before retirement age [2014 – 2017]

	2014	2015	2016	2017
Yearly income threshold below which no contributions are due	€1,423.90	€1,423.90	€1,439.42	€1,471.01
Minimum contribution per quarter (if I>threshold)	€81.40	€81.40	€77.37	€77.23
Maximum contribution per quarter	€4,146.22	€4,146.22	€3,961.90	€3,977,09

Self-employed after retirement age but without retirement pension benefits

The social insurance contributions on the earnings of individuals who are self-employed after retirement age and without receiving pension benefits largely follows the same calculation scheme as the self-employed in main activity before retirement age (two-bracketed structure in Table 29), however a minimum threshold applies (below which no contributions are due) and if income exceeds this threshold, the minimum contribution that is due is also different.

Table 30. Parameters of the social insurance contributions for self-employed after retirement age without pension benefits [2014 – 2017]

	2014	2015	2016	2017
Yearly income threshold below which no contributions are due	€2,847.81	€2,847.81	€2,878.84	€2,942.03
Minimum contribution per quarter (if I>threshold)	€162.82	€162.82	€154.74	€154.46
Maximum contribution per quarter	€4,110.32	€4,110.32	€3,961.90	€3,977.09

Self-employed activity in combination with pension benefits

For individuals that receive pension benefits rules exist about the combination of those benefits with a self-employed activity. In 2015 these rules have been considerably simplified. As of 2015 you can cumulate earnings from self-employed activity with pension benefits without limit from 65 years onwards (or if you have a full career of 45 years) provided your spouse does not receive a pension as head of the family (e.g. a pension with a replacement rate of 75%).Since this information is not available in EUROMOD we simply assume no limit on earnings from self-employed activity in combination with pension benefits. In this case social insurance contributions that are due on the net earnings from self-employed activity (in combination with a public old age pension) are as follows:

Table 31. Social insurance contributions for self-employed activity in combination with pension benefits [2017]

Annual net indexed earnings (I)	Annual social insurance contribution
< €2,942.03	0
>= €2,942.03 and <= 57,415.67	max{423.2, 0.147*I}
> €57,415.67 and <=€84,612.53	min{8,258.82+0.1416*(I-57,415.67), 12,027.16}

For self-employed aged less than 65 and receiving one or more survival pensions the calculation structure of their social insurance contributions is the same as for self-employed in main activity.

2.4.4 Social insurance contributions paid on non-labour income (*tscpe_s*)

Retirement and survival pensions

Retirement and survival pension benefits are subject to a social insurance contribution of 3.55% for the funding of sickness and disability insurance. However, if the contribution would bring the pension amount below a certain threshold, contributions are limited to the amount exceeding the threshold.

Table 32. Monthly thresholds for social insurance contributions for retirement and survival pensions [2014 – 2017]

	2014	2015	2016	2017
Pensioner without dependent family	€1,413.84	€1,413.84	€1,442.08	€1,442.08
Pensioner with dependent family	€1,675.59	€1,675.59	€1,709.07	€1,709.07

A second contribution (solidarity contribution) is withheld for pensions that exceed €2,620.56 for pensioners with dependent family (i.e. children) and €2,266.68 for pensioners without dependent family in 2017. This solidarity contribution has as purpose to increase solidarity among pensioners and is especially used to protect and preserve minimum pensions. The rate progressively increases from 0.5% to 2%. If the pension benefit exceeds €2,919.12 (€2,554.24) for pensioners with (without) dependent family the contribution percentage is 2%. These last amounts are for 2017.

Table 33. Calculation of social insurance contributions for pensioners [2017]

Without dependent family		With dependent family	
Pension amount in euro per month (P)	**Contribution**	**Pension amount in euro per month (P)**	**Contribution**
0.01-2,266.68	0	0.01-2,620.56	0
2,266.68-2,336.78	(P-2,266.68)*0.5	2,620.56-2,701.61	(P-2,620.56)*0.5
2,336.78-2,527.94	P*0.015	2,701.61-2,889.08	P*0.015
2,527.94-2,554.24	37.92+(P-2,527.94)*0.5	2,889.08-2,919.12	43.34+(P-2,889.08)*0.5
>=2,554.24	P*0.02	>=2,919.12	P*0.02

Social insurance contributions on conventional early retirement benefits[16]

An employee has a right to a conventional early retirement if he or she is 58 years old with at least 25 years of professional activity. Part of the conventional early retirement is paid by the unemployment office and part is paid by the employer.

Although strictly speaking an unemployment benefit, the treatment of early retirement pensions concerning social insurance contributions is more similar to that on pensions. A social insurance contribution of 3.5% is withheld by the employer on the part paid by the employer to fund pension insurance and a contribution of 1% or 3%, depending on the start date of the early retirement is

[16] This is not simulated as it cannot be derived from the data which part is attributable to the employer and which part to the unemployment office as the rates differ.

withheld by the unemployment office on the unemployment benefit. The 1% is for those whose early retirement started before 1997 and the 3% for those who retired early after 1997. For early retired the pension cannot fall below certain thresholds, which depend on the presence of dependent family. If it does, no contributions are due.

Social insurance contributions on disability benefits

On disability benefits received by wage earners a social insurance contribution of 3.5% is due to fund the pension insurance scheme. Again the payment of such contribution may not have as a consequence that the benefits fall below a certain threshold. If so, contributions are limited to the amount exceeding the threshold. The thresholds for beneficiaries with and without dependent family are summarized in Table 35. Contributions are not due on benefits for primary disablement (first year).

Table 34. Social insurance contributions on disability benefits [2014 – 2017]

Daily thresholds for:	2014	2015	2016	2017
Beneficiary without dependent family	€48.58	€48.58	€48.58	€48.58
Beneficiary with dependent family	€58.52	€58.52	€58.52	€58.52

Social insurance contributions on benefits for work-related sickness and disease and occupational injuries

The percentage applicable is 13.07% on benefits for either permanent or temporary disablement but no contribution is due on benefits for assistance by a third person. Because in the data, it is not possible to distinguish work-related sickness and disease and occupational injuries from regular sickness- and disability-benefits, all sickness and disability benefits are treated as the regular category (see paragraph above). Thus, the social insurance contributions on occupational injuries and work-related sickness and disease are not implemented.

2.4.5 Flemish care insurance contribution (tci_s)

The Flemish Care Insurance provides a financial compensation of 130 EUR to people with care needs to cover part of their costs for non-medical care. Starting from October 2001 anyone over the age of 25 and living in Flanders is required to pay an annual fee to a healthcare fund. For people living in Brussels membership is voluntary. People can submit an application to their healthcare fund if they think they qualify for the Flemish care insurance system. The Flemish care insurance is financed on a lump sum basis.

Table 35. Annual Flemish care insurance contribution [2014 – 2017]

	2014	2015	2016	2017
Member contribution	€25	€50	€50	
Member contribution if eligible for a higher compensation (pensioners, widows, orphan, etc.)	€10	€25	€25	

2.5 Withholding income tax (*tinwh_s*)

- ***Brief description***

The withholding income tax is a system of advance payments, each time one's salary or allowance is paid (mostly monthly, but also weekly or two-weekly is possible).[17] It seeks to approximate the final personal income taxes due. The rough lines of the calculation of the withholding tax are similar to the calculation of the personal income tax, however, it only takes into account the most important elements, and is in that way much less detailed, so differences can be considerable. A clearance of the balance between withholding tax (already paid) and final income taxes due (calculated on the basis of the filed tax returns which are due by the end of June of the year after the income reference year) usually takes place in the first half of the second year after the period in which the income has been received.

After subtracting social insurance contributions and (fixed) professional expenses in the case of employment income, the calculation of the withholding tax takes the following elements into account:

- Number of dependent children and persons
- Family situation: standard rates apply for single persons or couples (married or with cohabitation contract) in which both partners receive income. Differently, a deduction mechanism applies for couples in which only one of the partners receives income (to adjust for the 'marital quotient' that applies in the personal income tax system (cfr. paragraph 2.6.5).
- The type of payment (regular (recurrent) versus exceptional (non-recurrent)). The grade of detail of the available data prevents distinguishing between regular and exceptional payments, therefore, all income is treated as regular.

- ***Tax base, schedule and allowances***

The basis for the calculation of the withholding tax is the reference income for one year. It is assumed that the present income is being received for one year.

First, social insurance contributions are deducted from the gross income. For the determination of the amount, see section 2.4.

For the determination of the amount to be deducted as professional expenses, see "deductions related to expenses" under paragraph 2.6.3.

After these two deductions, the schedule in Table 37 is applied to the resulting tax base (the reference net taxable yearly income). This schedule counts for both single persons, and fiscal couples (= married or consensual union with a legal basis) of which both partners receive income (employment income, pensions or other replacement incomes).

Table 36. Withholding tax schedule [2017]

Net taxable income band (€ / year)			% applied on band
0	-	11,070	26.75
11,070	-	12,140	32.10
12,140	-	17,590	42.80
17,590	-	38,840	48.15
38,840		and more	53.50

[17] Strictly speaking, self-employment income is treated differently, with prepayments on a quarterly basis. However, as we cannot simulate this complex system, all income is treated as regular income.

For fiscal couples where only one spouse receives income higher than the above threshold, a specific mechanism applies. 30% of the net taxable yearly income of the earning spouse is first transferred to the other spouse, with a maximum of €10,490 (see also Table 48). This split part of the income is then treated as the net taxable yearly income of the non-earning spouse, and the above (individual) schedule is then applied to both parts of the income as if it were two separately gained incomes. This mechanism is entirely parallel to the marital quotient system in the personal income taxation (cfr. paragraph 2.6.4)

Next, a number of allowances are deducted from the resulting tax sum. First, a lump-sum deduction is subtracted (a fixed amount per earner in the case of a single person or dual earner family, and a different amount in the case of one-earner couples) from the total of calculated withholding tax. Next, a number of additional deductions apply that depend on the family situation (dependent children, other dependents, single parent or not). The applicable amounts (cf. Table 38) are additionally deducted from the obtained tax sum.

Table 37. Reductions from basic withholding tax [2014 – 2017]

Family situation	**Deduction (€/year)**			
	2014	**2015**	**2016**	**2017**
Lump sum per person earning income	1,546.15	1,546.15	1,621.05	1,655.83
Lump sum for one-earner household	3,092.30	3,092.30	3,242.10	3311.66
For the first dependent child	396*	396*	408*	420
--------- second ----------------	672*	672*	708*	720
--------- third -------------------	1,776*	1,776*	1,860*	1,836
--------- fourth -----------------	2,352*	2,352*	2,472*	2,472
--------- fifth -------------------	2,484*	2,484*	2,604*	2,604
--------- sixth -------------------	2,472*	2,472*	2,592*	2,592
--------- seventh ---------------	2,484*	2,484*	2,604*	2,616
--------- eighth -----------------	2,664*	2,664*	2,796*	2,868
For each child beyond the eighth	2,760*	2,760*	2,892*	2,952
For single persons	276	288	288	300
Single parents with dependent children	396	408	408	420
Not (re)married widow(er) with dependent children	396	408	408	420
For each other dependents than own children	396*	408	408	420
If the taxpayer him/herself is handicapped	396	408	408	420
Ascendants and relatives older than 65	792	812	840	852

* if the child or dependent person is handicapped, the applicable amount is doubled.

After applying the relevant deductions you get the equivalent of the yearly amount of withholding tax. Of course, the amount is then divided by the relevant period (e.g. divided by 12 for persons that are paid on a monthly basis) to obtain the amount that is actually withheld on the pay slip.

- ***Special social insurance contribution – determination of withheld amount***

The special social insurance contribution is already discussed in paragraph 2.4.2. As mentioned there, it is withheld every month and appears on the pay slip. In this paragraph, only the calculation of the monthly withheld amount is explained. The final amount, however, is calculated after the settlement of taxes, according to the rules explained in paragraph 2.4.2.

Table 38. Calculation rules of the monthly withheld special social insurance contribution [2011-2017]

	Single person Earning spouse in single earner couple	**Spouse in dual earner couple**
Monthly gross income = X	**Monthly withheld amount (€)**	
X < 1,095.10	0	0
1,095.10 <= X < 1,945.39	0	9.3
1,945.39 <= X < 2,190.19	7.6% of (X-1,945.39) With a maximum of 18,60	7.6% of (X-1,945.39) With a maximum of 18,60 and a minimum of 9,30
2,190.19 <= X < 6,038.83	18.60 + 1.1% of (X-2,190.19)	18.60 + 1.1% of (X-2,190.19) With a maximum of 51.64
X >= 6,038.83	60.94	51.64

Thresholds and amounts have remained unchanged over the period 2012-2017.

2.6 Personal income tax (tin_s)

The tax structure has changed considerably because of the 6th State Reform. We highlight the two most important changes. First the regions now can levy personal income taxes autonomously, before it was the sole responsibility of the federal state. The rate structure and tax base remain the same, but after calculation of the *State tax* (see figure below), the taxes are multiplied by the so-called *autonomy factor*, reducing it to the *reduced State tax* (tinna_s). Federal tax credits are then subtracted from the reduced State tax to get the federal personal income tax. Since the reform, the regions are now free to define a tax structure, based on the reduced State tax. By default the rate is fixed to 35.117%. This tax corrected for regional increases, reductions and credits forms the regional personal income tax. In Euromod, we do not make a distinction between federal and regional fiscal expenditures.

Figure 1: General principles - federal and regional PIT

Tax on separately taxed income	Basic tax according to the federal rate structure on aggregated taxed income	
	- tax on the zero-rate band	
	= tax to be distributed	
	- tax credit for pensions and replacement income	
	- tax credit for foreign income	
	= "principal"	
Adding up the tax on separately taxed income and the "principal" on aggregated taxed income		
Tax on interest, dividends, royalties, prizes attached to debenture bonds and capital gains on securities taxed as miscellaneous income	Tax on other income	
	= State tax	
	- (State tax * autonomy factor)	
	= ***reduced State tax***	***Regional surcharges*** on reduced State tax
- other federal tax credits		+ regional tax increases (47)
		- regional lump sum tax reductions (48)
		– regional tax credits (49)
balance; if = 0, it is possible to deduct the portion of the federal tax credits which could not be set off but which can be set off against the Region's positive balance		balance; if = 0, it is possible to deduct the portion of the regional tax reductions and credits which could not be set off but which can be set off against the federal positive balance
= ***federal PIT*** *(may be negative)*		= ***regional PIT*** *(may be negative)*
= ***total amount*** *(may not be negative)*		
+ federal increases		
- non-refundable federal items which can be set off		
- refundable federal and regional tax credits		
- federal items which can be set off and refunded		
+ municipal surcharges and agglomeration tax on the "total amount"		
= ***amount to be paid or refunded***		

Source: Tax Survey 2015 FPS Finance

2.6.1 Tax unit

The tax unit typically consists of a single person or married couple, (or couples with a legal union),[18] with dependent persons. Household members that satisfy one of the following conditions are possibly fiscally dependent:

- descendants of the taxpayer or his/her spouse (no age limits)
- children (up to 18 years old) who are not descendants but for whom the taxpayer or his/her spouse bears responsibility
- ascendants of the taxpayer or his/her spouse
- relatives of the taxpayer or his/her spouse
- individuals of whom the taxpayer was him- or herself dependent in the past, according to tax legislation.

[18] Married couples form a fiscal unit from the year following the year of marriage onwards.

To qualify as dependent one's own income may not surpass certain limits. If it does, the individual is considered a separate tax unit.

To determine a potentially dependent person's own means, the tax legislator takes into account both non-taxable and taxable income sources. Among the latter a further distinction is made between 1) occupational income, 2) real estate income, 3) income from assets, and 4) other income sources.

In case of income from a professional activity (occupational income) one compares 80% of gross taxable income[19] with gross taxable income minus the costs incurred to obtain this income and takes the lower of the two. The incurred costs can either be real or lump sum (cfr. section 2.6.3 for more details).[20]

For replacement incomes the standard rate of 80% is used to determine net own means from replacement income.

For income from unrented property the minimum is taken of cadastral income and 10/6 (developed) or 10/9 (undeveloped) of cadastral income minus real incurred costs.[21] If the property produces rental income then the minimum is taken of the received rent minus the real costs and 60% of the received rent for developed property or 80% of rent received for undeveloped property.[22]

Income from assets is counted in net own means as the minimum of gross income from assets minus real costs and 80% of gross income from assets.

For maintenance allowances (alimony) and income from non-taxable sources one takes 80% of the (gross) amount as net own means.

In the case of children child allowances, birth and adoption allowances, scholarships, alimony and earnings of disabled children from employment in sheltered workplaces are not included in the means test for net own means and they are not taxable either.

In order to qualify as a dependent, the yearly net own means of children cannot exceed the thresholds summarized in 0. Other rules apply for assessing the dependency of (grand)parents. The principal amount remains the same, but if the persons are 65 or older and enjoy pensions, part of the latter (up until the maximum limit) is exempted, i.e. not considered in the determination of net own means. Couples of (grand)parents are assessed together: if their common yearly net own means are below the lower threshold**,** both (grand)parents are dependent. If net own means are exceeding the lower threshold but remain below the second threshold, only the (grand)parent with the lowest net own means is considered dependent. If net own means are above the second threshold then none of the (grand)parents are dependent.

[19] Gross taxable income consists of gross earnings minus personal social security contributions. The special contribution for social security for households with income exceeding €18,592.02 is not deductible. Contributions paid by pensioners with a pension exceeding €991.57 a month are deductible (amounts unchanged over 2011-2014).

[20] In case of income from professional activity if the costs thus calculated should be lower than €350 then the latter amount applies (if not larger than gross taxable income). In the implementation, the choice for 80% of gross taxable income is assumed (in the definition of the income list).

[21] Not simulated due to lack of data.

[22] In the implementation, 60% of rent is assumed (variable ypr).

Table 39. Thresholds for net own means to assess dependency [2014 – 2017]

Thresholds below which one is a dependent	Net own means (€/year)			
	2014	2015	2016	2017
Children in couple households	3,110	3,120	3,140	3,200
Children of lone parents	4,490	4,500	4,530	4,620
Single (grand)parent	3,110	3,120	3,140	3,200
Couple (grand)parents - both dependent (1st threshold)	3,110	3,120	3,140	3,200
Couple (grand)parents - one dependent (2nd threshold)	5,700	5,720	5,750	5,860
Amount to which pension is exempted from the assessment for (grand)parents older than 65	25,030	25,120	25,260	25,750

2.6.2 Exemptions

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

In Belgium this applies for child benefits, study allowances, social assistance benefits, war pensions and benefits in case of a work-related accident or sickness for a person without any other income.

2.6.3 Tax deductions

Here, we define tax deductions as any amount subtracted from pre-tax income (including social insurance contributions).

In the Belgian tax system, a number of deductions apply. Two categories can be distinguished. First, the social insurance contributions are deducted from gross income. As social insurance contribution is extensively discussed in section 2.4, it is not treated here. Secondly, there are the deductions related to expenses. The expenses are subtracted from the total taxable income. The simulation possibilities of this category are limited. As detailed expenditure data lack from the data, it is impossible to reconstruct the deductions. Three exceptions to this apply: paid alimony, professional expenses and mortgage repayments. The net taxable income that results from the following rules can then further be reduced by declared expenses such as charitable donations, life insurance premiums, contributions to private pension plans and childcare costs (not simulated).

2.6.3.1 Alimony

Paid alimony is available in the data and is deductible up to 80% of the paid amounts if the beneficiary does not live in the same household as the taxpayer and the payment must be the result of a court order.

2.6.3.2 Professional expenses

For all workers, gross taxable income from a professional activity is reduced by the amount of professional expenses incurred, or by a lump sum amount, whichever is most favourable. In the case of real costs the taxpayer must prove these costs if asked for by the tax legislator. In EUROMOD, lump sum costs are simulated for every worker.[23]

[23] Self-employed usually don’t make use of the system of assumed professional expenses, and usually choose to prove their costs by means of the invoices. In the EUROMOD database, the actual professional expenses of the self-employed are not available, so the wage-related formula is assumed to apply to their professional expenses as well.

As part of the tax shift the (lump sum) deduction of professional expenses for employees was increased in 2016. To determine the lump sum amount of professional expenses the following rates apply:

Table 40. Schedule for lump sum deduction of professional expenses for employees [2017]

Gross taxable income (€ / year)	Rate applied on gross taxable income (%)
>0 and <=8,620	30.0
>8,620 and <=20,360	11.0
>20,360	3.0
Max. amount lump sum costs	€4,320 / year

In 2018 the deduction for professional expenses for employees will be further increased. From then on only one rate of 30% will apply (with a slightly higher maximum amount).

Self-employed typically declare real incurred costs, but can also opt for a lumps sum deduction of professional expenses. The rate schedule is different from the schedule for employees.

Table 41. Schedule for lump sum deduction of professional expenses for self-employed and co-working spouses [2017]

Gross taxable income (€ / year)	Rate applied on gross taxable income (%)
>0 and <=5,870	28.7
>5,870 and <=11,670	10.0
>11,670 and <=19,420	5.0
>19,420	3.0
Max. amount lump sum costs	€4,060 / year

For managers only one rate of 3% on gross taxable income applies to determine the lump sum amount of work related costs with a maximum of €2,440 (in 2017).

2.6.3.3 Mortgage repayment

In 2005 onwards, the tax treatment of the dwelling one owns has changed considerably. The former system remains however applicable for mortgages concluded before 1/1/2005. Therefore we distinguish in the description the pre-2005 system and the post-2005 system.

A. Pre 2005 system

Before 2005 'cadastral income' was part of taxable income. 'Cadastral income' (CI) is the average normal net income that real estate provides to its owner. This corresponds to an estimation of the average normal net rent value of the property for one year (at the reference time, which is 1 January 1975). CI is subject to annual *indexing* (the index for tax year 2010 is 1.5461). There were 4 possibilities of tax relief an owner could cumulatively apply for: (a) the normal interest deduction, (b) the housing deduction, (c) the additional interest deduction, and (d) the tax credit for capital redemption payments.

(a) The *normal interest deduction*: interest payments on mortgages for purchasing or renovating a home can be deducted from income from real estate, if the loan has a term of at least 10 years. This deduction cannot exceed CI. If there are remaining interest payments, the balance can be deducted from the income from real property of the other spouse, without exceeding it. An additional deduction may apply to the still remaining part of the interest payments, as will be explained in Part (c).

(b) The *housing deduction*: part of CI is exempt from taxes, which is known as the housing deduction. This amount is increased for each dependent person (incl. spouses), for disabled heads or partner, and for widow(er)s with dependent children. Depending on the level of the taxable income, owner-occupiers can be entitled to a so-called additional dwelling allowance. The deductible amount of both the dwelling and the additional dwelling allowance may not exceed income from real estate. It is possible that the total deduction that would be granted to a spouse exceeds the taxable income from real property. In this case the balance can be deducted from the income from real property of the other spouse, without exceeding it: the total amount of income from real property of both spouses cannot be negative.

- The ordinary housing deduction *(gewone woningaftrek / abattement ordinaire)*: The deduction is granted per spouse for his (part of the) cadastral income. The exemption amounts to 4,640 euro (2010), raised by 390 EUR for each dependent person. This increase is divided on a 50/50 base between both spouses.
- The additional housing *deduction (aanvullende woningaftrek / abattement complémentaire)*: When the total of the net income (including the remaining indexed cadastral income) is not higher than 32,530 euro (amount for 2010), an additional deduction is granted that is equal to half of the difference between the total indexed cadastral income and the ordinary housing deduction. This rule is applicable for each spouse.

(c) The *additional interest deduction*: the interest that remains after the normal deduction of interest may likewise be deducted from total income on condition that the mortgage was raised in order to build, purchase or renovate a home in Belgium, and that the loan was contracted between 30 April 1986 and 31/12/2004 for a term of at least 10 years. The maximum amount of the loan value taken into account is determined using Table 43. For mortgages concluded from 1986 to 1988, the amounts for 1989 are used, including the increases for dependent children. If the total amount of the loan is lower or equal to the maximum amount, then the full amount of the capital payments can be declared. If not, the following formula is applied:

remaining interest payments x maximum amount / total value of the loan

On the resulting amount a percentage is applied that determines the effectively applicable deduction for the remaining interest payments: it is restricted in function of the number of years that the rental value income of the real property in question has been included in the taxable income. For the first five taxable years, the deduction amounts to 80%, and for the next seven years it diminishes by 10% yearly, ending with a deduction of 10% in the twelfth year:

- from the first to the fifth year, 80%
- for the sixth year, 70%
- for the seventh year, 60%
- for the eight year, 50%
- for the ninth year, 40%
- for the tenth year, 30%
- for the eleventh year, 20%

- for the twelfth year, 10%

The deduction is proportionally applied to the income of each spouse.

(d) The *tax credit for capital redemption payments*: the capital redemption for a mortgage loan with a term of at least 10 years entitles an owner-occupier to an extra tax reduction (in the form of a tax credit). This reduction is calculated on a maximum limit of the initial loan, which is comparable to that applied for the additional interest reduction. It depends on the year in which the mortgage was concluded.

- Loans concluded from 01.01.1963 to 31.12.1988: Only part of the total amount of the loan is taken into account for the tax reduction. The maximum amounts are listed in Table 44. For mortgages concluded from 01.05.1986 to 31.12.1988 we will assume a new medium sized house.

Table 42. Maximum amounts taken into account for loans concluded from 01.01.1963 to 31.12.1988

Date of the mortgage	Nature of the house	Maximum amount
from 01.01.1963 to 30.04.1986	medium sized house	9,915.74
from 01.05.1986 to 31.12.1988	medium sized house	9,915.74
	new medium sized house	49,578.70

If the total amount of the loan is lower or equal to the maximum amount, then the full amount of the capital payments can be declared. If not, the following formula is applied:

capital payments x maximum amount / total value of the loan

The result is eligible for a tax reduction. Assuming the house is the main residence of the owner, the reduction is calculated at the marginal income tax rate of the lender. The amounts that are eligible for the reduction are multiplied with the tax rate that is applicable to the highest income tax bracket of the lender. The result of that calculation is then subtracted from the personal income tax, without exceeding it.

- Loans concluded from 01.01.1989 to 31.12.2004: Again, only part of the total amount of the loan is taken into account for the tax reduction. The amounts are raised by 5%, 10%, 20% or 30% when there are 1, 2, 3 or more dependent children in the house. The maximum amounts are listed in Table 44.

Table 43. Maximum amounts taken into account for loans concluded from 01.01.1989 to 31.12.2004, depending on the number of dependent children.

	Number of dependent children				
	0	1	2	3	>3
1989	49.578,70	52.057,64	54.536,58	59.494,45	64.452,32
1990	51.115,64	53.668,95	56.222,25	61.353,65	66.460,25
1991	52.875,69	55.528,15	58.180,61	63.460,74	68.740,87
1992 to 1998	54.536,58	57.263,40	59.990,23	65.443,89	70.872,76
1999	55.057,15	57.808,77	60.560,39	66.063,62	71.566,86
2000	55.652,10	58.453,29	61.229,70	66.782,52	72.360,12
2001	57.570,00	60.440,00	63.320,00	69.080,00	74.830,00
2002	58.990,00	61.930,00	64.880,00	70.780,00	76.680,00
2003	59.960,00	62.950,00	65.950,00	71.950,00	77.940,00
2004	60.910,00	63.960,00	67.000,00	73.090,00	79.180,00

If the total amount of the mortgage is equal or lower than the maximum amount, the full amount of the capital payments can be declared. If not, the following formula is applied:

capital payments x maximum amount / total value of the loan

The resulting amount is again calculated at the marginal income tax rate of the lender and subtracted from the personal income tax, without exceeding it.

For mortgage loans that started before 2005, the measures (a) to (d) still apply. For mortgages concluded after 2004, however, an entirely new system was installed.

B. 2005-2014 system

From 2005 onwards, the described measures have been abolished, and the CI of the only self-occupied dwelling has become tax exempt in the personal income tax system. For owners with a mortgage loan that is contracted after 1 January 2005, the three other tax advantages (interest deduction, additional interest deduction, tax credit for capital redemption payments) have been replaced by the so-called ‘dwelling bonus’, which is only applicable for mortgages contracted for the own, self-occupied and only dwelling and that have a term of at least 10 years. When these conditions are fulfilled, the tax payer can deduct each year a basic amount of 2,280 Euro from his taxable income. This basic amount can be increased with (a) 760 Euro during the first 10 years of the term of the mortgage and with (b) 80 Euro when there are three or more dependent children in the household on 1 January of the year that follow on the year in which the mortgage was concluded. The amounts are subtracted from the total net income of each spouse, without being limited to the total amount of the income from real properties. The tax advantage is thus applied at the marginal tax rate, so the effective advantage depends on the tax brackets that are applied to the taxpayer’s income.

Aspects of policy that were not implemented

(1) There are conditions on the duration of the mortgage. We assume that those are fulfilled.
(2) There are specific rules for social houses.
(3) We do not really know if a house is medium sized. We assume it.
(4) Specific rules apply for mortgages that were taken out to repay other mortgages.
(5) There are also reductions for premiums paid for life insurances.

(6) We do not know how many dependent children there were when the mortgage was concluded. We just count the current number of dependent children.
(7) We assume that the owner obtained the house by buying it in the market. Different rules apply e.g. for houses acquired through inheritance.
(8) Specific rules apply when one mortgage is taken out by multiple persons.

C. 2015

As part of the 6th State Reform, fiscal policy concerning housing was transferred to the regions as of January 2015. The fiscal *Woonbonus* thus became a regional tax reduction for contracts of 2015 onwards. Brussels, Wallonia and Flanders maintained the structure of the instrument for mortgage loans contracted in 2015, with one important change: the benefit of the instrument is no longer defined by the marginal tax tariff but by a fixed rate.

Table 44. Regional housing bonus [2015]

Type of replacement income	Brussels	Flanders	Wallonia
Tariff of the tax reduction	45%	40%	40%
Maximum (standard) housing bonus	€2,300	€1,520	€2,290
Increase of max during first 10 years	€770	€760	€760
Increase of max for large families (3+ children)	€80	€80	€80

D. 2016

From January 1st 2016 the different regional systems for mortgage repayments will begin to diverge.

Flanders

Flanders introduced the “integrated Woonbonus”, which consists of the integration of several other tax reductions for second, third and more houses (i.e. the tax reduction for long-term savings and normal interests) into the ‘Woonbonus’. This effectively means that the other tax reductions for housing will no longer apply to mortgage loans contracted after January 1st 2016. Thus, as of this year the ‘Woonbonus’ is no longer limited to owners of one house only. Since the information on the number of houses one owns is not available in EUROMOD database, these changes have no implications for the simulation of the ‘Woonbonus’ in EUROMOD. The amounts and calculation of the tax reduction remain the same as in 2015. These amounts will no longer be indexed each year.

Wallonia

The Walloon region replaced the ‘Woonbonus’ with the ‘Chèque habitat’. The ‘Chèque habitat’ is conceived as a tax reduction for mortgage loans with a duration of at least 10 years contracted to buy or build your only house. In contrast to the ‘Woonbonus’, the amount of the ‘Chèque habitat’ *decreases* with your income and only applies to people with a yearly income of less than €81,000:

Table 45. Calculation of the "Chèque habitat" [2016 – 2017]

Annual income (I)	Tax reduction
Base amount	
< €21,000	1,520
€21,000 ≤ I < €81,000	1,520 – [(I-21,000)*1.275]
≥ €81,000	0
Additional increase	
Increase for each dependent child	125

The base amount of the tax reduction is €1,520 (the same as in Flanders). For annual incomes between €21,000 and €81,000 this amount is reduced by €1 for each income bracket of €78 above €21,000. People with yearly incomes higher than €81,000 no longer receive a tax reduction for mortgage repayments. On top of this reduction each household receives an additional reduction of €125 for each dependent child in the household. These amounts will no longer be indexed each year.

Brussels

For people living in Brussels the same rules as in 2015 apply for mortgages contracted before 2016 (the amounts were not indexed). As of January 1st 2016, however, the 'Woonbonus' will be abolished and replaced by a decrease in the registration fees for newly built or purchased houses. Due to a lack of data, this decrease cannot be simulated in EUROMOD.

E. Treatment of mortgage in uprated years

To avoid that we simulate a proportion-wise decrease in eligible households, we assume that in the years following the baseline: mortgage was concluded in the reported year +n (baseline year + n).

2.6.4 Tax base

To calculate personal income taxes we need to determine the tax base, i.e. net taxable income. This is done by subtracting the tax deductions discussed in section 2.6.3. from gross income,[24] excluding the tax credit for capital redemption.

All replacement incomes are taxable except for the one exempt from taxation enumerated in section 2.6.2. (income support, war pensions and benefits in case of a work-related accident or sickness for a person without any other income).

For certain income from assets, such as dividends, interest from bonds and other fixed income securities, there is no obligation to declare since taxes are withheld at the source (simulated separately, see section 0.). Other income from assets such as income originated and collected abroad and interest on savings in a savings account should be declared.[25] Income from assets can be taxed separately or jointly with other income, whichever is more advantageous for the taxpayer. In EUROMOD it is

[24] Losses that are incurred can be deducted from any positive income to establish taxable income. Moreover, losses are transferrable without limitation to other tax years to be set off against positive income. Because data from other years are not disposable, this is not simulated.

[25] In case of savings accounts the first €1,880 in interest on savings per spouse is exempt from taxation altogether. As it is not possible to identify which income is from interest on savings accounts, this policy is switched off.

assumed that separate taxation is more advantageous, because of the low average rate (15% on intrest from savings in a savings account and 30% for income from other assets).

Other income sources include maintenance allowance (alimony) of which 80% is subject to taxation.

Occasional profits and benefits are taxed net of incurred costs. These do not include profits and benefits from regular exploitation of a private enterprise or estate, nor do they include winnings from lotteries or games.[26]

Some income items are taxed separately such as wages overdue, holiday allowance paid up-front, capital from collective insurance contracts. These are, however, not simulated because the data are not detailed enough in this respect.[27]

Also taxed separately are income from assets, awards, and certain subsidies (cfr. section 0).

2.6.5 Federal tax schedule

The rate structure in the table below is applied to individual net taxable income to determine the gross amount, before any other reductions (cfr. section 2.6.6), of personal income taxes. As a consequence of the tax shift implemented by the new administration, the federal tax schedule will be modified in several respects between 2016 and 2020. Firstly, the 30%-bracket will be abolished and integrated into the 25%-bracket. To this end, the upper limit of the 25%-bracket was raised in 2016 and will be further raised to reach the upper limit of the current 30%-bracket in income year 2018. Secondly, the 40%-bracket will be progressively broadened by raising the upper limit from €13,530 to €13,940 in 2018 and to €14,330 in 2019 (non-indexed amounts).

Table 46. Tax schedule federal tax [2014 – 2017]

Tax brackets	Upper limits of yearly net taxable income				Rate applied
	2014	2015	2016	2017	
1st bracket	8,680	8,710	10,860	11,070	25%
2nd bracket	12,360	12,400	12,470	12,720	30%
3rd bracket	20,600	20,660	20,780	21,190	40%
4th bracket	37,750	37,870	38,080	38,830	45%
5th bracket	∞	∞	∞	∞	50%

[26] For awards and subsidies the tax base is the received amount plus any withholding taxes minus gifts to Belgian universities or other recognized institutions for scientific research. Awards and subsidies are taxable only for the part that exceeds €3,910. (not simulated)

[27] It concerns the following items (not simulated) :

Income from assets (stocks, bonds and other securities)	30%
Occasional profits	33%
Awards and subsidies	16.5%
Income from subletting and transfer lease	30%
Capital gain real estate	16.5%
Capital gain land (for construction)	33% if sold within 5 yrs of acquisition.; 16.5% ow
Wages and replacement incomes overdue	average tax rate previous year
Severance pay of more than €850 gross	idem
Holiday earnings paid in advance	idem
Capital from life or collective insurance contracts, or pension plans	33%, 16.5% or 8%

As discussed above, the amount of income corresponding to the tax free amount is exempt from tax. This means that the rate structure applies on the entire net taxable income, and in the end the tax due on the base allowance (after applying the rate structure for that amount) is subtracted to obtain the final tax amount (see section 2.6.6.).

In the case of married couples the tax legislator allows for income sharing between spouses up to a certain limit (the so-called 'marital quotient system'). If one of the spouses earns less than 30% of the couple's total net taxable income, income between spouses is shared as if the higher earning spouse earned 70% of total household income from professional activity and the other spouse 30%. The amount transferred is limited (amounts see Table 48) and may not exceed 30% of total household professional income. After this income sharing, the rate structure is applied to both individuals as if the income was their own individual income. This implies that the transferred part of the income is taxed against a much lower marginal rate than if it would have been had it not been transferred, i.e. if it had remained part of the income of the higher earning spouse.

In the case of self-employed part of the income can be transferred to the "co-working" spouse is slightly higher. The compensation should be in relation to the services provided by the spouse of the self-employed and cannot exceed 30% of total income earned with the help of the spouse. We assume that the sharing is in relation to the services.

If the professional income of one of the spouses is negative, this can be deducted from the earnings of the other spouse without, however, exceeding those earnings (not simulated).

Table 47. Marital quotient limits [2014 – 2017]

Type of replacement income	2014	2015	2016	2017
Max. yearly amount transferred to the other spouse	€10,200	€10,200	€10,290	€10,490
In case of co-working spouse for self-employed	€13,240	€13,240	€13,360	€13,620

Municipality taxes

Municipality tax rates are collected in addition to the above tax schedule. The rates vary from 2.5% to 9.0%. As in the EUROMOD database we do not dispose of municipality information, these taxes are calculated taking 7.6% (Brussels), 7.2% (Flanders) and 7.9% (Wallonia) of calculated national taxes. This percentage corresponds to the proportion of aggregated municipality taxes / aggregated national taxes in the administrative fiscal data.

2.6.6 Tax credits

2.6.6.1 Tax free amounts for family size and composition

The tax legislator grants the taxpayer an income amount that is exempt from taxation. The exemption is from the bottom up. This means that the taxes due on that amount are calculated following the normal income brackets and applicable rates. The amount that is then obtained will be deducted from the final tax payment calculated on total net taxable income.

From 2016 onwards, the rates applied for the calculation of the tax free amount are no longer the same as the rates from the federal tax schedule. The changes to the tax brackets following the federal tax shift (as explained under 2.6.5.) will not be extended to the brackets used to calculate the tax free amounts. The brackets and applicable rates for 2017 are given below. Notice that the upper limit of the 1st bracket no longer corresponds to the upper limit in 2.6.5.

Table 48. Tax schedule applied to calculate tax free amounts [2017]

Tax brackets	Upper limits of yearly net taxable income (€ / year)	Rate applied (%)
1st bracket	8,930	25
2nd bracket	12,720	30
3rd bracket	21,190	40
4th bracket	38,830	45
5th bracket	∞	50

The basic amount is applied per taxpaying person regardless of the marital status. It is the same for all individuals. In a cohabitating couple consisting of two tax units each person will individually get the basic amount allocated, and in a married couple that makes up a single tax unit, it will also be granted to each spouse separately. If the income of one of the married spouses is less than the basic exempted income amount however, the remainder can be transferred to the other spouse (if his or her income is sufficiently large).

If the taxpayer is disabled the basic amount is increased, and the tax free amount is further increased for each dependent child[28], as well as for a number of specific family situations:

Table 49. Tax free amounts, basic amounts and for special family situations [2014 – 2017]

	Increase of the tax free amount			
	2014	2015	2016	2017
Basic amount (per taxpayer)	7,070	7,090	7,130	7,270
Disabled taxpayer	1,500	1,510	1,520	1,550
Amount per child for first child	1,500	1,510	1,520	1,550
-------------------- for second child	2,370	2,370	2,380	2,430
-------------------- for third child	4,800	4,820	4,840	4,940
From fourth child onward	5,350	5,370	5,400	5,510
Ascendants and relatives older than 65	3,000	3,010	3,030	3,090
Other dependent person	1,500	1,510	1,520	1,550
Handicapped dependent person	1,500	1,510	1,520	1,550
Lone parent with dependent children	1,500	1,510	1,520	1,550
Max. amount refundable tax credit (per child)	430	430	440	440
Low taxable income	25,990	25,990	26,510	27,030
-------------------- additional amount	280	280	290	290

If the tax free amount exceeds the actual income, the result is that no taxes have to be paid, but no compensation exists for the 'remainder' of the tax free amount, the part that one cannot 'use' because income is insufficient. However, if the increase of the tax free amount is due to increases related to children, then part of the tax free amount is refundable in the form of a tax credit for children, with maximum amount per child (see Table 50).

2.6.6.2 Credits in the case of replacement income

When part of one's income stems from replacement income (unemployment benefits, early retirement benefits, sickness and disability benefits, pensions), tax credits are applicable to that part. In 0 the yearly basic tax credits are shown for different types of replacement income. For all types of replacement income, the assessment unit is the individual, i.e. the recipient's family situation does not influence the amount of the credit. The amounts of the tax credits for replacement incomes (see table below) will not be indexed until income year 2019.

[28] An extra lump sum increase of the tax deduction of €580 (2017) for each child younger than 3 is granted if no childcare costs are declared on the tax form for this child. (not simulated).

Table 50. Tax credits for replacement incomes [2014 – 2017]

Type of replacement income	2014	2015	2016	2017
Pensions	2,046.70	2,024.12	2,024.12	2,024.12
Early retirement benefits	2,046.70	2,024.12	2,024.12	2.024.12
Unemployment benefits (incl. for elderly unemployed)	2,046.70	2,024.12	2,024.12	2,024.12
Sickness and disability benefits	2,627.29	2,598.29	2,598.29	2,598.29

These credits are further reduced “horizontally” and “vertically”.

Horizontal limit

The tax credit is limited to the proportion of replacement income in total net taxable income. A taxpayer receiving unemployment benefits of €2,500 and net taxable income from professional activity of €10,000 will only be eligible to receive 1/5 of the tax credit related to unemployment benefits (2500/(10000+2500)), where €12,500 is the *total* net taxable income in this example. This rule is applied on the “calculation basis”, before application of the marital quotient system (cfr. section 2.6.5).

Vertical limit

The general rule which is applicable to all replacement incomes except the regular unemployment benefits is as follows, where R is the reduction after applying the horizontal limit, and NTI is net taxable income (at the level of the tax unit):

Table 51. Determination of vertical limit of the tax credit for replacement income (except regular unemployment benefits) [2017]

NTI<€22,430	R’=R
€22,430<=NTI<=€44,860	R’=R*1/3+[R*2/3*(44,860-NTI)/ 22,430]
NTI>€44,860	R’=R*1/3

In case of regular unemployment benefits the following rules apply:

Table 52. Determination of vertical limit of the tax credit for regular unemployment benefits [2017]

NTI<€22,430	R’=R
€22,430<=NTI<=€28,000	R’=R* (28,000-NTI)/ 22,430]
NTI>€28,000	R’=0

The reductions that are obtained after applying the horizontal and vertical limits cannot be more than that part of the tax that is proportional to the tax base on which they apply. It means that the reduction as a proportion of the total tax cannot be more than the replacement income as a proportion of total net taxable income.

After all the reductions the taxes due can be further reduced to zero in case taxable income’s sole component is replacement income –and only one type of replacement income– and does not exceed the following amounts:

Table 53. Upper limits for further reduction to zero taxes in the case of pure replacement income[29] [2014 – 2017]

Type of replacement income	2014	2015	2016	2017
Unemployment benefits	17,477.08	17,569.48	17,569.48	17,569.48
Pensions, early retirement and other replacement income	15,443.08	15,158.54	15,158.54	15,158.54
Sickness and disability benefits	17,158.98	17,242.82	17,242.82	17,242.82

2.6.6.3 Refundable tax credit on low activity incomes

Low activity incomes are incomes from professional activity net of costs (either real or lump sum) that are not replacement incomes, wage incomes[30] or other separately taxed incomes. It implies that this tax credit is applicable only for self-employed and statutory civil servants. The base for the calculation of the credit is before application of the marital quotient and is calculated per spouse. The credit calculated according to the rules in the table below is limited to the ratio of activity income in total net income from professional activity. The maximum amount of the tax credit is €690 for self-employed and €310 for the co-working spouse (and €740 for employees in the public sector without a formal labour contract). The tax credit is refundable.

Table 54. Calculation structure for the refundable tax credit on low activity incomes [2017]

Net income (I)		Tax credit (€ / year)
G1 (€ / year)	G2 (€ / year)	
0	5,100	0
5,100	6,810	690*(I-G1)/(G2-G1)
6,810	17,040	690
17,040	22,140	690*(G2-I)/(G2-G1)
22,140	and more	0

2.6.6.4 The fiscal workbonus

Wage earners that are not eligible for the tax credit on low activity incomes but who are eligible for a reduction in personal social security contributions (the "workbonus" as explained in section 2.4.1.) are also eligible for an additional tax credit based on the amount of the reduction in personal social security contributions. This tax credit is calculated by multiplying the amount of the original workbonus with the rate as shown in the table below.

Table 55. Calculation of the fiscal workbonus [2015 – 2019]

Rates applicable as of…	% applied to original workbonus	Maximum amount of reduction (non-indexed amounts in € / year)
01/08/2015	17.81	235
01/01/2016	28.03	420
01/01/2019	33.14	500

[29] See circulaire AAFisc Nr. 6/2016

[30] Wage earners that are not eligible for this tax credit are in principle eligible for a reduction in personal social security contributions.

2.7 Investment income taxes (*tinkt_s*)

For certain income from assets, such as dividends, interest from bonds and other fixed income securities, there is no obligation to declare since taxes are withheld at the source.. As of January 1st 2017 an increased rate of 30% applies to most income form assets. However, the rate applied to income from interests on savings in a savings account remains at 15%.

In principle, income from assets can be taxed separately or jointly with other income, whichever is more advantageous for the taxpayer. The assumption in EUROMOD is that this income is taxed at the source and is hence not taken up in taxable income. Other income from assets such as income originated and collected abroad and interest on savings in a savings account should be declared. In case of savings accounts the first €1,880 in interest on savings per spouse is exempt from taxation altogether.

Because with the EUROMOD data it is not possible to distinguish whether investment income comes from abroad or not, or whether it originates from interest on a savings account or not, these details are not simulated. Hence, all investment income is treated in the same way and taxed at an standarde rate of 30%.

2.8 Advanced levy on immovable property (*tprhm_s*)

Real estate taxes are implemented as part of personal income tax.

Cadastral Income. Every property in the country is listed in the Cadastre (land registry) and an annual net rental income is assigned to it: the cadastral income. This value corresponds to the net rental income of the property on the 1st of January 1975, plus a ratio of adjustment to today prices, re-evaluated every year. To assess the cadastral income the Cadastral administration takes into account both the building itself (number of rooms, cellar, garage, general condition etc.) and more general factors affecting the building or its environment (ease of access, distance from main highways, etc.). Cadastral income needs to be declared on the tax form. However, taxes on cadastral income, Belgium's main real estate tax, are paid separately. Therefore taxes due on cadastral income are "settled" against the final tax payment at a rate of 12.5% of the part of cadastral income that is effectively taken up in the tax base.

Principles of the real estate tax. The so-called "advance levy on immovable properties" (onroerende voorheffing / précompte immobilière) is a regional tax on immovable properties, outside the personal income tax. Its amount is based on the indexed cadastral income[31] (e.g. in 2017, the index was 1.7491):

- Flemish Region: 2.50% of the indexed cadastral income
- Walloon Region and Brussel-Capital Region: 1.25%

[31] If the property is the second home or rented to a natural person that does not use it for professional activities or rented to a legal person that is not a corporation and that sublets to (a) natural person(s) to use the property as residence then the indexed cadastral income is further increased by 40%. If the property is rented to a natural person for professional activity or to a corporation then the tax base is rental income net of a 40% lump sum cost allowance. The net rent may not be lower, however, than the indexed cadastral income plus 40% (not simulated).

The owner of a modest house (non-indexed cadastral income on all immovables <= 745 EUR) can obtain a reduction of 25%.

Surtaxes. Provinces, agglomerations and municipalities can levy surtaxes on these regional taxes. These surtaxes are a percentage increase of the base levy. A surtax of 100 means that for each euro of regional tax, an additional euro is levied for local authorities. Since we do not have detailed information on the geographic position of the house, we use average surcharges for each region, as shown in Table 57. In 2016, the Brussels-Capital Region increased its surtax with 400 points. As a compensation for this increase, every household that owns a main residence in Brussels receives a lump-sum benefit of 120 euro per year per household (BE HOME compensation).

Table 56. Average surtaxes per region in % [2014 - 2017]

Total average surtaxes per region (municipality + agglomeration rates together)	2014	2015	2016	2017
Brussels	3389	3389	3789	3789
Flanders	1676	1676	1676	1676
Wallonia	4200	4200	4200	4200

Reductions for dependent children. If the owner of the house has dependent children he may be entitled to a reduction, dependent on the region.

- **Flemish Region**
  In the Flemish Region the owner is entitled to a reduction if he has two or more dependent children. The lump sum reductions are listed in Table 58. The amounts are indexed annually.

Table 57. Lump sum reductions for dependent children in the Flemish Region [2014 – 2017]

Number of dependent children	Reduction			
	2014	2015	2016	2017
2	7.59	7.62	7.66	7.81
3	12.02	12.06	12.13	12.37
4	16.83	16.89	16.99	17.32
5	22.07	22.14	22.27	22.70
6	27.68	27.77	27.93	28.48
7	33.71	33.83	34.02	34.69
8	40.17	40.31	40.53	41.33
9	47.01	47.17	47.43	48.37
10	54.29	54.48	54.78	55.86

- **Brussels Region**
  In the Brussels-Capital Region the owner must have at least two children alive, including one dependent child. The owner then is entitled to a reduction of 10% for each dependent child.

- **Walloon Region**
  In the Walloon Region a reduction of 125 euro is granted for each dependent person.

Aspects of policy that were not implemented

- Properties that are let as social houses are subject to a lower tax rate.
- Disabled persons and war disabled persons are entitled to a reduction, different for each region.

- Under certain conditions, there is a reduction for nonproductive houses.
- Houses for which an energy performance certificate (energieprestatiecertificaat) exists can enjoy a reduction.
- The reduction for modest houses for inhabitants of the Flemish Region is only applicable for houses that are in the Flemish Region. Our data does not cite the location of the house though. This is no problem, as we assume the house to be the only and the main residence of the owner.
- Average surcharges were used for each region, instead of detailed rates for each province, agglomeration and municipality.

3. DATA

3.1 General description

We use the UDB SILC for Belgium, as provided by EUROSTAT. 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 response rate for the total sample ("old" households (3/4) and "new" households (1/4) together) is defined as (number of addresses successfully contacted / number of valid addresses contacted) * (number of household interviews completed and accepted for the database / number of eligible households at contacted addresses) was not available yet at the time of writing (June 2017).

Table 3.1 EUROMOD database description

	SILC 2015 - Income Year 2014
EUROMOD database	BE_2015_a2
Original name	EU-SILC_UDB_C15 (ver 2015-2 from 01-03-17)
Provider	Eurostat
Year of collection	2015
Period of collection	February-June
Income reference period	2014
Sampling	2-stage sampling; with stratification of sampling units (no clustering of sampling units)
Unit of assessment	Sociological household
Coverage	Private households
Sample size	14,209 individuals; 6006 households
Response rate	n.a.

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 households and relationships of individuals within households, are coherent (for example, that both partners identify each other correctly, to rule out inconsistencies in family structure).

In order to guarantee consistency between demographic variables and income variables which refer to the previous year (and on which EUROMOD simulation are based), all children born between the end of the income reference period and the data of interview have been dropped from the sample (64 newborns in 2015).

3.3 Imputations and assumptions

3.3.1 Time period

All income information in EU-SILC 2015 refers to the fiscal year 2014 (January – December). Monetary amounts in the original variables are normally expressed in yearly totals, unless otherwise indicated. Incomes and benefits are paid on a monthly basis in Belgium. For most income variables, information is included on how many months a certain wage or benefit was received.

For the construction of the EUROMOD database from EU-SILC, all monetary amounts are re-scaled to "an average month", dividing them by 12.

For non-monetary variables, two reference periods co-exist in EU-SILC. On the one hand, with respect to the reference year (2014) there is relevant information included on e.g. activity status and household composition, complementing the income information. On the other hand, a number of questions (on e.g. education activity, child care) refer to the "current" state at the time of the interview, which means during the first half of 2015.

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

1) Direct information from EU-SILC referring to the income reference period (e.g. monthly labour market information) is being used where possible.
2) In addition, information on the income reference period is derived from the current reference period (e.g. education activity).
3) 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.

3.3.2 Gross incomes

For the applicable income variables, gross and net incomes are both collected in the original data. Consistency checks between corresponding net and gross amounts were done by the National Statistics Office Belgium.

For the construction of the EUROMOD dataset, the gross amounts from EU-SILC were used (where applicable). The EUROMOD Working Paper EM16/14 "Gross incomes in the Belgian SILC dataset: an analysis by means of EUROMOD" by André Decoster, Dieter Vandelannoote, Toon Vanheukelom, and Gerlinde Verbist explores the choice for gross incomes by comparing SILC gross incomes (and the poverty and inequality estimated that stem these) to fiscal statistics on the one hand and a re-calibration approach based on SILC net incomes on the other hand. See: https://www.iser.essex.ac.uk/research/publications/working-papers/euromod/em16-14.

3.3.3 Disaggregation of harmonized variables

The disaggregated benefits from EU-SILC are used to distinguish for HY050 between parental leave benefits (bfapl – contributory and non-means-tested), and child allowance (bch – non contributory and non-means-tested).

Early retired people are another important category in the Belgian tax-benefit system that is not identifiable from the SILC data. Moreover, respondents seem to have confused the legal status of "early retirement" with that of "older unemployed exempt from seeking work". We have assumed that those who indicated 'pensioner' as an economic status and are over 56 years of age and receive unemployment benefits, as the early retired. Yet, care should be given to interpreting results for these subcategories.

Civil servants were randomly imputed using the percentage of civil servants per occupational category, a table that was derived from National SILC data. In order to impute the mortgage-related variables, a number of assumptions were made: for cadastral income (khooo), we assumed a linear ratio with imputed rent. We assumed the year that the household moved in the current property as the year when the mortgage was concluded (amoyl). Total loan value (amolv) was derived by assuming a total mortgage time of 25 years and an interest rate of 3.5%.

3.4 Updating

The factors that are used to update monetary variables from the mid-point of the data year to mid-point of simulation years until 2017 are shown in Table 1 in APPENDIX 1: uprating factors.

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 income source that is not simulated, remain as they were in the 2015 data.

4. VALIDATION

4.1 Aggregate Validation

EUROMOD results are validated against external benchmarks. Detailed comparisons of the number of people receiving a given income component and total yearly amounts are shown in APPENDIX 2: VALIDATION tables. Both market incomes and non-simulated taxes and benefits in the input dataset as well as simulated taxes and benefits are validated against external official data. The main discrepancies between EUROMOD results and external benchmarks are discussed in the following subsections. Factors that may explain the observed differences are also discussed.

4.1.1 Components of disposable income

Components of disposable income

	EUROMOD 2014-2017	EU-SILC 2015
	ils_dispy	HY020
Employee cash or near cash income	+	+
Employer's social insurance contribution	0	0
Company car	-	+
Contributions to individual private pension plans	0	0
Cash benefits or losses from self-employment	+	+
Pension from individual private plans	0	0
Unemployment benefits	+	+
Old-age benefits	+	+
Survivor' benefits	+	+
Sickness benefits	+	+
Disability benefits	+	+
Education-related allowances	+	+
Income from rental of a property or land	-	+
Family/children related allowances	+	+
Social exclusion not elsewhere classified	+	+
Housing allowances	0	0
Regular inter-household cash transfer received	+	+
Interests, dividends, etc.	+	+
Income received by people aged under 16	+	+
Regular taxes on wealth	+	-
Regular inter-household cash transfer paid	-	-
Tax on income and social contributions	-	-
Repayments/receipts for tax adjustment	+	+

See APPENDIX 2: VALIDATION tables *for tables*

4.1.1.1 Gross wages

Previous investigations on the validation of gross wages for detailed job categories in EU-SILC[32] showed that gross wages were on average about 13% higher in SILC2006 than in the statistics from the National Statistics Office based on the Structure of Earning Survey. However, it is very difficult to construct fully comparable data. A first difficulty concerns the definition of 'full time workers', which varies over surveys depending on structural design features such as the reference period. A second

[32] See table 54 in the Belgian EUROMOD Country Report 2005-2008

cause for deviation between the SILC-aggregates and other sources is that in the SILC data, also bonuses and holiday earnings are counted as wages, whereas this is not explicitly stated in the other sources. This could explain the slight upward bias of the EUROMOD wages, which are based on SILC, in comparison to this external source.

Table 1 validates the total of gross wages earned (on which social insurance contributions are due) against administrative statistics of the social insurance institutions. The number of employees and the total of gross wages are both overestimated in the EUROMOD database for baseline year 2014 (24% and 31%). However, the components of the income concept (wage) in this case are not entirely similar in the comparison. While income from employment in EUROMOD contains all holiday payments, bonuses and even meal vouchers, the income concept of the social insurance institution (external source) does not contain neither a substantial part of the holiday payments, nor performance related bonuses, nor meal vouchers.

4.1.1.2 Taxable income

To have a more global picture of the amount of taxable income in EUROMOD, the total taxable income simulated is compared with the available fiscal data (Table 2). On the aggregate level, there is an underestimation (ratio 0.93 in 2014). Only for the region of Brussels, slightly higher taxable income is found in EUROMOD in comparison to the fiscal statistics (+15%). Of course, it must be kept in mind that the Brussels sample is fairly small, which can affect the accuracy of the Brussels results.

Table 3 shows the number of fiscal units. For those categories of taxable income above €10,000/year, the underestimation is of the order of 0 to 10% in 2014. However, the number of tax units with a taxable income lower than €10,000 is strongly underestimated (by 62%) in EUROMOD. The number of tax units in the highest band according to EUROMOD corresponds almost perfectly to the external statistics. Together this results in a 13% underestimation of the total number of tax units in the country. At first sight, this is almost entirely caused by an underrepresentation of tax units with taxable income situated in the lowest tax bracket.

Complementary to the underestimation of tax units with low taxable income, Table 4 shows that average taxable income per tax unit is slightly higher when simulated in EUROMOD than in the administrative statistics.

There are three complementary explanations for this pattern:

1) Specifically with respect to the strong underestimation of tax units with taxable income lower than €10,000, a large part of it could be explained by the fact that the fiscal statistics include persons with a very small income (e.g. students on part-time jobs, for instance only during summer time) as separate fiscal units, even if they do not exceed the thresholds to belong to the fiscal unit of their parents.[33] In EUROMOD, these students are grouped into the fiscal unit of the family. For the results this should not matter (even if they are included as separate units in the statistics, for the actual calculation of due taxes (mostly none, as long as the thresholds are not exceeded) they are counted as part of the fiscal household of the parents). In addition, we should note that there is no specific question in SILC that mentions income from (mostly relatively small) holiday jobs. It depends on the student in question whether this income is mentioned as income from employment or not.

2) An additional reason for this can be that EUROMOD does not simulate some important deductible expenses, as the data lack information to adequately do this. The most important example is the actual professional expenses incurred (the so-called operating expenses). Others include gifts (to approved organizations), cheques from the local employment agency to hire household help (PWA-cheques), all kinds of energy-saving investments, investments for safety and security. Simulation of the deductible expenses would imply that some tax units would have lower taxable unit than what is now simulated.

[33] For a critical discussion of the methodology of the National Statistics Office, see Defeyt (2010).

3) The results seem to suggest that EU-SILC for Belgium contains too few people with low earnings. One reason for this might be that the fiscal data include persons in collective households (prisons, convents, homes for the elderly), while the SILC data only contain private households. This might lead to a small sample bias. If we assume that incomes of the tax units in collective households are on average often lower than in private households, this might contribute to the lower taxable incomes in the fiscal data as well. This would be in line with the evidence found in section 4.1.1 of the overrepresentation of employees in the database and their wages.

4.1.2 Validation of incomes inputted into the simulation

The following tables compare the available external sources with the statistics on benefits and taxes that are not simulated in EUROMOD. This provides an assessment of the quality of the database and also provides some useful background information for the validation of simulated components of income which may depend on or be associated with the non-simulated components. For these income components, the EUROMOD database is in fact equal to the original database (here SILC 2012), while the external source are administrative figures.

1. Pensions

In Table 5, retirement pensions are assessed. The difference between old age pensions and survivor's pensions appeared unclear to the respondents. When assessed separately, the figures diverge considerably from administrative sources (old age pension being overreported, survivor pension underreported). However, when both pensions are aggregated, the ratio becomes closer to 1. The number of pensioners in our dataset of 2014 is 10% lower than in the administrative sources, while the total expenditure on pensions is higher by 9% in comparison with the administrative numbers in 2014. The slight underrepresentation of pensioners can be due to the fact that only private households were sampled in the EU-SILC, so persons in collective households, such as nursery homes, are not represented in the survey. At the same time, the comparatively high aggregate expenditure found allows us to assume that the amounts reported as state pension might sometimes also include non-state pension income components, such as income support for the elderly (which counts as social assistance) and/or some types of private pensions.

2. Early-retirement pensions

For early retirement benefits (Table 6), the difference between administrative figures and the observation in SILC is wider. An important first remark concerns the definition of early retirees. The legal definition of an "early retiree", which implies also a special treatment of one's income in the tax-benefit system, is often obtained at times when company restructuring is responsible for making many workers redundant. The early retirement option contains a specific regulation where part of the monthly benefit is paid by the company until the person's retirement age and the other part by the unemployment institution. Officially, these workers are exempt from seeking work because of labour market reasons. While the total number of recipients matches closely (ratio of 0.95 for 2014), the expenditure is higher in the EUROMOD data than in the administrative statistics (ratio of 1.11 for 2014). This can be explained by the fact that the administrative sources only account for the part that is paid by the government. There are no official statistics on the second part of the benefit that early retirees receive, namely the substantial amounts that are paid by the companies.

3. Unemployment benefits

Table 7 shows that the number of unemployed individuals is strongly underestimated (ratio of 0.79 in 2014), while the expenditures do match almost perfectly to the administrative statistics. It appears that especially very short-term unemployed, who have received the benefit only for a limited period of time, have possibly not reported this.

4. *Incapacity-related benefits*

With regards to the incapacity related benefits (cfr. Table 8), the number of recipients is underestimated by 41% in the EUROMOD data, while the total expenditure closely corresponds to what could be found in the administrative statistics. In any case, it is very difficult to construct comparable aggregates between the EUROMOD data and administrative data, as the variable includes an enormous variety of benefits originating from various schemes (sickness, disability, occupational injury and occupational disease) that are further administered by different institutions depending on the workers' statute (employee, civil servant, the self-employed, pensioner), not all of which could provide the necessary statistics to construct comparable aggregates, and rough estimations were necessary (e.g. assuming similar evolutions in separate schemes). Results for sickness & disability should therefore be interpreted with great care, as mainly the number of persons affected is underestimated (trustworthy numbers of recipients were not available for several components).

5. *Income support*

Finally, the non-simulated income support (social assistance) variable is presented in Table 9. First, an important disclaimer applies with respect to the official statistics used as external source in the validation exercise.

In Belgium, one has to distinguish between two measures for cash income support. First, regular income support (*regulier leefloon*) is allocated to Belgians and foreigners with a stable or long term residence permit (Belgians, EU-citizens, foreigners with permanent residence permit). "Equivalent" cash income support (*equivalent leefloon*) is allocated to persons whose statute is very precarious, e.g. candidate refugees, undocumented residents or temporary residing foreigners. Both types of income support are made up of the same amounts, only the financing is different. Previous validation analysis (cf. EUROMOD Country Report Belgium 2006-2010) revealed that persons receiving equivalent income support are barely captured in the SILC data, because only a small part of them belongs to the sample population of the SILC survey (the sample is drawn from the state register, while foreigners who receive equivalent income support are often registered in the foreigners register, and not in the state register). Therefore, the validation is carried out using the amounts and beneficiaries of regular income support only. One has to bear in mind, however, that this means that the most precarious foreign population in Belgium, for which on average the equivalent income support is an important income source) is not represented in these data.

The number of recipients is underestimated, the data captures 87% of the persons receiving income support in reality in 2014. The expenditures, on the other hand, are overestimated by 112%. This suggests that these families who were to a large extent dependent on income support, are over-represented in the survey and/or less likely to underreport than families who have received smaller amounts of income support or for only a short period of time during the year.

4.1.3 Validation of outputted (simulated) incomes

1. *Simulated income tax*

Table 10 shows that for the general federal income tax and the municipal income tax the number of fiscal units as well as the total taxes are quite closely simulated in EUROMOD for the baseline year 2014. For the levy on income from capital gains, the special social security contribution and the levy on immovable property of households only the revenue is available. The special social security contribution is overestimated by 14%. As it is a well-known difficulty to adequately capture income from capital gains in survey data, the revenue of levy on income from capital gains and levy on immovable property of household is seriously underestimated in these data (by 82% and 76% respectively).

2. Simulated social contributions

Table 11 presents the aggregated revenues from social insurance contributions. While employer social contributions are slightly underestimated compared to the administrative data, the employee social insurance contributions are overestimated by 15% in EUROMOD. This divergence can be entirely explained by the fact that the database has higher income from employment in relative terms (cfr. Table 1).

The employer social contributions on the other hand, are too low compared to the administrative statistics, despite the database's bias towards income from employment. In fact, lower employer social contributions are simulated on the micro-level because the data do not allow the implementation of the detailed components that make up the employer social insurance contribution, such as taxes on private pensions or the private use of company cars.

3. Child allowance (bch_s)

Although the number of children giving right to child allowance corresponds closely to the administrative sources (+2%), the total expenditure simulated for child benefit is slightly underestimated when compared to the administrative statistics (-3%; cfr. Table 12). One reason for this might be that the children's disability status is not observed in the data, which means that the higher allowances (normal amount times two) for handicapped children cannot be simulated.

4. Birth allowance (bchba_s)

The (un)availability of external statistics hinders a strict comparison between administrative sources and the EUROMOD database. There are no numbers available for the recipients from the civil servant social security scheme. 2013 was the latest year for which we could construct a somewhat comparable concept, assuming the same evolution of births in the civil servants scheme as in the employee scheme. This way, we found out that in 2013, recipients as well as expenditures were slightly overestimated (+11%)

5. Income support (bsa_s)

The simulated income support is closer to the administrative data than the values recorded in the EU-SILC data, therefore the simulated values are included in the disposable income concept. The difficulty of simulating the income support measures stems from capturing the means-test in the simulations and from the complex issue of non-take up.

Belgian Local Welfare Centres have large discretionary power over decisions about the eligibility of the applicant (see section 1.2.4). Typically, a very detailed means-test is performed which can only be partly simulated. In comparison to earlier versions of EUROMOD, we are now able to switch on the means-test on cadastral income (a measure indicating the value of the dwelling owned), improving the coverage of the means-test in the simulation. Second, the quality of the data available does not allow us to simulate this part sufficiently accurately. For instance, income from capital, an important element in the means-test, is not well captured in the SILC data. When full take-up is assumed the overestimation is too high, therefore a random correction is applied (in the form off a take-up correction) so that the aggregate number of recipients and the budget approximates as best as possible the official statistics.

The number of recipients in 2014 is calibrated to correspond to those reported in the external statistics. By keeping constant the take-up adjustment factor, the number of recipients is about 15 to 25% lower than the official statistics over the period 2014-2015. The expenditure is overestimated by 58% (cfr. Table 14, 2014).

The take-up correction implemented in the system has the advantage that aggregate figures correspond better. Still, it is assumed that non-take up is a random phenomenon, ignoring the difference that the true, detailed means-test implies and the specific non-take up issues at play for different individuals and families. As discussed in the section on income support in paragraph 1.2.4, we decided to use the simulated income support with take-up correction for the validation of the characteristics of the income distribution.

A quick overview of the literature on non-take up of income support in Belgium:

- Between 1993-1995, based on research using the ECHP, 9.7% of the Belgian population was estimated to be eligible for social assistance, without making use of it. The researchers report that they have filtered as much as possible unreliable household income from the data before making these estimations (Nicaise & Groenez, 2002).

  The number of persons receiving income support is overestimated in EUROMOD by 300%. This is about 4.5% of the working age population (between ages 18 & 65) in 2005. Although not strictly comparable, this figure is in line with the 9.7% over three years that was found in the ECHP data.

- Rotation in and out of social assistance is relatively high, with many people only being in receipt of the benefit for a couple of months: For a sample of entrants for the period of June 1987 to November 1990, Cockx (1997) finds a median duration for women and men respectively of 4.5 and 6 months.

- Vercauteren en Daems (1995) point at the importance of the delay between becoming eligible and submitting the application. Based on half-open interviews with clients of the local centres for social assistance, they found out that more than 50% of those were waiting a considerable amount of time before submitting their application (29% for more than 1 year). The main reasons that were quoted are as follows: they did not know about the centres for social assistance, they thought that the application procedure was too complex, they felt ashamed or they feared reclamation from family members.

  This is in line with the observation that the number of recipients corresponds more closely to the official statistics than the total expenditures. Those who apply for income support with a delay, appear in the annual statistics as recipients but have received the benefit for a shorter time than what is simulated in EUROMOD, assuming immediate take-up.

6. Income support for the elderly (bsaoa_s)

Income support for the elderly is implemented in the system, but is not included in the simulated disposable income. It is very difficult to interpret the simulated results, the main reason being that it is impossible to find out to what extent the income support for the elderly is or is not included in the SILC survey. It seems that this benefit was mistakenly recorded as regular pension income in the majority of cases and is as such already included in the data. For other persons, it was not recorded at all, and only for a few cases the amount was correctly recorded in SILC as income support for the elderly. The means-test in the simulations is performed on the income as recorded in SILC, which means that the actually received income support for the elderly, when it was reported or included in the regular pension amount, was included in the income used to assess eligibility for this benefit. Of course, this is not correct.

The amounts are still implemented in the system and the user can switch on the policy in the spine and include the simulated benefit (bsaoa_s) in the disposable income. However, for the construction of the baseline simulated net disposable income, pensions (not simulated) are not included, therefore bsaoa_s is switched off by default.

Table 15 shows that the number of recipients as well as the budget in EUROMOD correspond very closely with the administrative statistics. It appears that errors in different directions cancel each other out. On the one hand, income support functions as a top-up income, and we pointed out that it is probable that income support already received is inevitably included in the income base used in the means-test to assess eligibility. On the other hand, the income on which the threshold is applied already contains this benefit for the persons taking up the benefit and for whom the amount is recorded in the regular pensions variable. We would expect that these people are already above the eligibility threshold in the means-test and thus should not be among the simulated recipients. This means that it is possible that the income support simulated in EUROMOD is mainly to the benefit of those who in reality do not make use of the benefit, even though they are eligible. The interpretation of the simulated results is thus far from being clear.

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 scale are: first adult=1; additional people aged 14+ = 0.5; additional people aged under 14 = 0.3.

4.2.1 Income inequality

When compared to the original SILC data income inequality is lower in EUROMOD. Both Gini and the S80/S20 measure are 13 to 16% lower for EUROMOD incomes than for SILC incomes (cfr. Table 17). Looking at the average income per decile (equivalised), we can see that the underestimation in EUROMOD is mainly driven by divergence in the extreme ends of the income distribution (Table 16). Disposable income in the first half of the income distribution correspond very closely to the SILC distribution, within the margin of -5/+5%. Higher up in the income distribution, EUROMOD simulated smaller disposable income than reported in SILC, up to -16% in the 10th decile.

4.2.2 Poverty

Table 20 shows, depending on the threshold chosen, a gap between the EUROMOD income poverty figures and the external source poverty figures (calculated on the basis of the SILC data). The gap decreases (or the ratio comes closer to 1) when the poverty lines are higher. For the 70% of median income threshold, the gap is about 20%, for the 60% and 50% threshold, the gaps increase to 25 and even 35%, and for the lowest poverty line (40% threshold), the pattern is quite unpredictable, depending on the categories chosen.

The size of the gap is due to a number of reasons. First, the poverty lines for the EUROMOD disposable incomes are slightly lower in comparison with the poverty lines calculated on the basis of the SILC disposable income. This is due to the fact that the medians differ (cfr. Table 16). The lower median value in EUROMOD leads to lower poverty lines (expressed as 60% of this median equivalent income), and thus possibly to lower poverty headcount according to these thresholds.

Secondly, as presented in the figures on income inequality (cfr. Table 17), net disposable incomes are underestimated in the top half of the income distribution, while they are slightly higher for the bottom half. This has a direct impact on the number of individuals whose income is below 60% of the median income. The combined effect of a lower poverty line and slightly higher net disposable incomes in the lower deciles in EUROMOD when compared to SILC results in underestimation of poverty figures in EUROMOD compared to the SILC data.

Table 21 shows that the estimated discrepancy between the poverty figures from EUROMOD and from SILC is relatively evenly distributed over the age categories, except that the discrepancy is notably lower for the age category 50-64 and notably higher for pensioners (65+).

4.3 Summary of "health warnings"

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

- The sample is relatively small. Care should be taken in interpreting results for small subgroups.
- Although aggregates correspond to some extent, care should be taken in interpreting results for the recipients of sickness and disability benefits, the elderly in receipt of income support, as well as the early-retired, as it is not completely clear how they were captured in the data.
- The number of employees (in private sector and especially in public sector) and the total aggregate income from employment are overestimated in EUROMOD. It seems that this is primarily caused by the fact that employees are slightly overrepresented, while the recorded wages are representative for the Belgian population as a whole.
- There is evidence to suggest that in some instances the SILC sample is not fully representative for the Belgian population. Especially persons and households with low earnings are underrepresented in these data.
- The simulated income support is adjusted for non take-up of benefits using a random non take-up correction of the number of beneficiaries.

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http://ccff02.minfin.fgov.be/KMWeb/document.do?method=view&id=2849549a-92d4-435c-8f4a-ff90a442b1ff#findHighlighted

Technical details on taxation system presented in a comprehensive way:
http://www.monkey.be (in Dutch & French, subscription required)

APPENDIX 1: UPRATING FACTORS

Table 1. Updating factors [2005 - 2017]

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CPI	100.0	101.8	103.6	108.3	108.2	110.6	114.5	117.8	119.1	119.5	120.2	122.9	124.2
Health index	100.0	101.8	103.6	107.9	108.6	110.4	113.8	116.8	118.2	118.7	120.0	122.6	123.7
Old age pension	100.0	103.1	106.6	109.9	117.7	121.6	125.2	131.0	135.1	136.3	136.7	140.7	140.7
Social assist.	100.0	102.0	107.2	113.7	118.3	118.3	123.1	128.1	130.7	133.3	133.3	141.4	141.4
Hourly earnings	100.0	102.6	104.8	108.3	112.2	116.1	119.4	123.1	125.4	126.8	127.1	127.1	127.1
Dispos. income	100.0	104.7	110.8	113.8	108.1	117.8	118.8	122.8	122.8	125.7	125.7	125.7	125.7
Share value	100.0	117.6	152.0	119.5	70.8	85.5	87.9	81.9	95.9	124.8	139.1	129.5	137.5
Income replacement	100.0	102.0	107.2	113.7	118.3	118.3	120.7	128.1	130.7	133.3	133.3	138.7	138.7
Early retirem.	100.0	102.0	104.0	108.2	114.9	117.2	119.5	124.3	126.1	126.1	126.1	128.5	128.5
Unempl. ben. <=6m	100.0	102.0	104.1	109.3	129.1	124.7	136.0	138.7	150.3	150.3	150.3	155.2	155.2
Unempl. ben. 7+ m	100.0	102.0	104.1	109.3	120.3	117.6	120.7	125.0	130.1	130.1	130.1	134.3	134.3
Gen. wages	100.0	103.7	106.2	109.8	110.4	111.7	115.6	119.0	121.4	122.4	122.4	122.4	122.4

Sources: Indices like consumer price index and health index, as well as specific indices for non-benefit incomes (employment income, investment income, property income) are published by Belgostat (http://www.nbb.be/belgostat). Indices of benefits are published by the relevant public services (health, pensions). The updating factors for the other benefits are calculated on the basis of the evolution of the official benefit amounts for a representative category (income support, unemployment, family benefits).

APPENDIX 2: VALIDATION TABLES

Table 1. EUROMOD validation: total gross wages

	Recipients (employees)			Total gross wages (millions of € per year)		
	EUROMOD database	External source	Ratio	EUROMOD database	External source	Ratio
2014						
Private sector	2,974,981	2,704,973	1.10	105,000	86,617	1.16
Civil servants	1,238,586	696,728	1.78	46,000	26,930	1.77
Total	4,213,568	3,401,701	1.24	151,000	113,547	1.31
2015						
Private sector	2,974,981	n.a.	n.a.	105,000	87,802	1.20
Civil servants	1,238,586	n.a.	n.a.	46,000	23,907	1.92
Total	4,213,568	n.a.	n.a.	151,000	114,708	1.32
2016						
Private sector	2,974,981	n.a.	n.a.	105,000	n.a.	n.a.
Civil servants	1,238,586	n.a.	n.a.	46,000	n.a.	n.a.
Total	4,213,568	n.a.	n.a.	151,000	n.a.	n.a.
2017						
Private sector	2,974,981	n.a.	n.a.	105,000	n.a.	n.a.
Civil servants	1,238,586	n.a.	n.a.	46,000	n.a.	n.a.
Total	4,213,568	n.a.	n.a.	151,000	n.a.	n.a.

	Average gross wage per recipient (€/year)		
	EUROMOD database	External source	Ratio
2014			
Private sector	35,294	32,021.392	1.10
Civil servants	37,139	38,652.100	0.96
Total	35,837	33,379.477	1.07
2015			
Private sector	35,294	32,151.822	1.10
Civil servants	37,139	34,198.178	1.09
Total	35,837	33,443.557	1.07
2016			
Private sector	35,294	n.a.	n.a.
Civil servants	37,139	n.a.	n.a.
Total	35,837	n.a.	n.a.
2017			
Private sector	35,294	n.a.	n.a.
Civil servants	37,139	n.a.	n.a.
Total	35,837	n.a.	n.a.

Sources: National Social Security Office – wages; wage employment (Rijksdienst voor Sociale Zekerheid – aangegeven lonen en bezoldigingen periodes; loontrekkende tewerkstelling)

Table 2. EUROMOD validation: total taxable income for the different regions

	Total taxable income (millions of €)		
	EUROMOD database	**External source**	**Ratio**
2014			
Belgium	184,500	198,215	0.93
Region Brussels	18,710	16,264	1.15
Region Flanders	112,600	122,107	0.92
Region Wallonia	53,180	59,844	0.89
2015			
Belgium	183,200	n.a.	n.a.
Region Brussels	18,600	n.a.	n.a.
Region Flanders	111,800	n.a.	n.a.
Region Wallonia	52,770	n.a.	n.a.
2016			
Belgium	182,100	n.a.	n.a.
Region Brussels	18,520	n.a.	n.a.
Region Flanders	111,100	n.a.	n.a.
Region Wallonia	52,510	n.a.	n.a.
2017			
Belgium	182,000	n.a.	n.a.
Region Brussels	18,500	n.a.	n.a.
Region Flanders	111,100	n.a.	n.a.
Region Wallonia	52,430	n.a.	n.a.

Sources: External source: fiscal administrative data FOD Economie

Table 3. EUROMOD validation: number of tax units according to yearly taxable income

Taxable income	Number of tax units: EUROMOD database	External source	Ratio
2014			
All	5,474,440	6,261,830	0.87
>0 - < 10,000	325,441	849,621	0.38
>= 10,000 - < 20,000	1,541,613	1,720,683	0.90
>= 20,000 - < 30,000	1,275,210	1,364,647	0.93
>= 30,000 - < 40,000	784,122	814,257	0.96
>= 40,000	1,548,055	1,512,622	1.02
2015			
All	5,478,743	n.a.	n.a.
>0 - < 10,000	329,370	n.a.	n.a.
>= 10,000 - < 20,000	1,571,910	n.a.	n.a.
>= 20,000 - < 30,000	1,269,019	n.a.	n.a.
>= 30,000 - < 40,000	784,243	n.a.	n.a.
>= 40,000	1,524,201	n.a.	n.a.
2016			
All	5,479,964	n.a.	n.a.
>0 - < 10,000	342,837	n.a.	n.a.
>= 10,000 - < 20,000	1,580,710	n.a.	n.a.
>= 20,000 - < 30,000	1,270,437	n.a.	n.a.
>= 30,000 - < 40,000	787,904	n.a.	n.a.
>= 40,000	1,498,075	n.a.	n.a.
2017			
All	5,479,526	n.a.	n.a.
>0 - < 10,000	345,415	n.a.	n.a.
>= 10,000 - < 20,000	1,575,025	n.a.	n.a.
>= 20,000 - < 30,000	1,280,216	n.a.	n.a.
>= 30,000 - < 40,000	779,303	n.a.	n.a.
>= 40,000	1,499,568	n.a.	n.a.

Sources: External source: administrative fiscal FOD Economie

Table 4. EUROMOD validation: average taxable income per tax unit for the different regions

	Average taxable income per tax unit (€)		
	EUROMOD database	**External source**	**Ratio**
2014			
Belgium	32,928	31,654.521	1.04
Region Brussels	30,822	27,252.288	1.13
Region Flanders	35,221	33,518.627	1.05
Region Wallonia	29,561	29,595.385	1.00
2015			
Belgium	32,665	n.a.	n.a.
Region Brussels	30,641	n.a.	n.a.
Region Flanders	34,920	n.a.	n.a.
Region Wallonia	29,332	n.a.	n.a.
2016			
Belgium	32,477	n.a.	n.a.
Region Brussels	30,510	n.a.	n.a.
Region Flanders	34,718	n.a.	n.a.
Region Wallonia	29,159	n.a.	n.a.
2017			
Belgium	32,456	n.a.	n.a.
Region Brussels	30,482	n.a.	n.a.
Region Flanders	34,706	n.a.	n.a.
Region Wallonia	29,121	n.a.	n.a.

Sources: External source: administrative fiscal statistics

Table 5. EUROMOD validation of taxes and benefits included but not simulated: retirement pensions

	Recipients (persons)			Expenditure (millions of € per year)		
	EUROMOD database	**External source**	**Ratio**	**EUROMOD database**	**External source**	**Ratio**
2014	2,029,568	2,248,007	0.90	41,200	37,714	1.09
2015	2,029,568	2,287,721	0.89	41,310	38,765	1.07
2016	2,029,568	2,320,434	0.87	42,530	39,626	1.07
2017	2,029,568	n.a.	n.a.	42,530	n.a.	n.a.

Note: statistics for the persons in the civil service scheme of social insurance contributions are not yet available for 2016 – these are estimated based on the statistics for 2015.
Source: National Pension Office (RVP), Pension Office public sector (PDOS)

Table 6. EUROMOD validation of taxes and benefits included but not simulated: early retirement pensions

	Recipients (persons)					Expenditure (millions of € per year)				
	EUROMOD database	External source strict def.	External source loose def.	Ratio strict def.	Ratio loose def.	EUROMOD database	External source strict def.	External source loose def.	Ratio strict def.	Ratio loose def.
2014	101,680	107,132	165,517	0.95	0.61	1,714	1,545	2,283	1.11	0.75
2015	101,680	101,862	150,961	1.00	0.67	1,714	1,476	2,097	1.16	0.82
2016	101,680	94,506	137,306	1.08	0.74	1,748	1,403	1,954	1.25	0.89
2017	101,680	n.a.	n.a.	n.a.	n.a.	1,748	n.a.	n.a.	n.a.	n.a.

Notes: The strict definition includes only those who have the "early retirement" legal status in social security legislation, the loose definition also includes elderly unemployed who are exempt from seeking work until their retirement age, and fall under a broader, less legal interpretation of early retirement.
Source: Annual reports National Employment office (RVA) 2014-2016

Table 7. EUROMOD validation of taxes and benefits included but not simulated: unemployment benefits

	Recipients (persons)			Expenditure (millions of € per year)		
	EUROMOD database	External source	Ratio	EUROMOD database	External source	Ratio
2014	832,652	1,060,537	0.79	**7,270**	7,195	1.01
2015	832,652	1,008,511	0.83	**7,270**	6,696	1.09
2016	832,652	958,546	0.87	**7,508**	6,397	1.17
2017	832,652	n.a.	n.a.	**7,508**	n.a.	n.a.

Source: Annual reports National Employment office (RVA) 2014-2015

Table 8. EUROMOD validation of taxes and benefits included but not simulated: incapacity-related benefits (sickness & disability; excl. maternity)

	Recipients (persons)			Expenditure (millions of € per year)		
	EUROMOD database	External source	Ratio	EUROMOD database	External source	Ratio
2014	602,197	1,018,675	0.59	6,326	6,809	0.93
2015	602,197	834,703	0.72	6,326	6,847	0.92
2016	602,197	n.a.	n.a.	6,582	n.a.	n.a.
2017	602,197	n.a.	n.a.	6,582	n.a.	n.a.

Source: National institute for sickness and disability (RIZIV) – Statistics department allowances, 2014-2015; Federal agency for occupational risks (Fedris) - Vademecum Social Security 2015.

Table 9. EUROMOD validation of taxes and benefits: income support (bsa)

	Recipients (households)			Expenditure (millions of € per year)		
	EUROMOD database	External source	Ratio	EUROMOD database	External source	Ratio
2014	155,529	178,523	0.87	1,361	641	2.12
2015	155,529	199,286	0.78	1,361	528	2.58
2016	155,529	n.a.	n.a.	1,444	614	2.35
2017	155,529	n.a.	n.a.	1,444	n.a.	n.a.

Source: own calculations on the basis of statistics of the Federal Public Service Social Integration, anti-Poverty Policy, Social Economy and Federal Urban Policy (204 -2017)

Table 10. EUROMOD validation: income tax

	Taxpayers (fiscal units)			Revenue (millions of €)		
	EUROMOD database	External source	Ratio	EUROMOD database	External source	Ratio
2014						
Income tax – general federal income tax	5,919,284	6,261,830	0.95	45,630	42,520	1.07
Income tax – municipal income tax	5,789,094	6,261,830	0.92	3,063	3,111	0.98
levy on income from capital gains	4,810,884	n.a.	n.a.	771	4,315	0.18
special social security contribution	2,740,360	n.a.	n.a.	1,271	1,116	1.14
levy on immovable property of households	5,056,451	n.a.	n.a.	873	3,590	0.24
2015						
Income tax – general federal income tax	5,909,973	n.a.	n.a.	31,160	n.a.	n.a.
Income tax – municipal income tax	5,824,556	n.a.	n.a.	3,102	n.a.	n.a.
levy on income from capital gains	4,810,884	n.a.	n.a.	860	3955	0.22
special social security contribution	2,719,408	n.a.	n.a.	1,255	1109	1.13
levy on immovable property of households	5,056,451			872	3641	0.24
2016						
Income tax – general federal income tax	5,919,284	n.a.	n.a.	42,640	n.a.	n.a.
Income tax – municipal income	5,789,094	n.a.	n.a.	3,063	n.a.	n.a.

tax						
levy on income from capital gains	4,810,884	n.a.	n.a.	8,649	n.a.	n.a.
special social security contribution	2,671,389	n.a.	n.a.	1,220	n.a.	n.a.
levy on immovable property of households	5,056,451	n.a.	n.a.	8,779	n.a.	n.a.
2017						
Income tax – general federal income tax	5,900,086	n.a.	n.a.	29,860	n.a.	n.a.
Income tax – municipal income tax	5,773,019	n.a.	n.a.	2,952	n.a.	n.a.
levy on income from capital gains	4,810,884	n.a.	n.a.	1,020	n.a.	n.a.
special social security contribution	2,671,977	n.a.	n.a.	1,220	n.a.	n.a.
levy on immovable property of households	5,055,561	n.a.	n.a.	8,747	n.a.	n.a.

Sources: External source: OECD revenue statistics – details of tax revenue Belgium, 2014-2015; FOD Economy: Fiscal administrative data, 2014-2015.

Table 11. EUROMOD validation: social contributions

	Revenue (millions of €)		
	EUROMOD database	**External source**	**Ratio**
2014			
Employee social contribution	20,820	18,114	1.15
Employer social contribution	32,130	35,187	0.91
Self-employed social contribution	3,197	3,726	0.86
2015			
Employee social contribution	20,930	18,424	1.14
Employer social contribution	29,840	36,091	0.83
Self-employed social contribution	3,197	3,966	0.81
2016			
Employee social contribution	19,850	n.a.	n.a.
Employer social contribution	3,814	n.a.	n.a.
Self-employed social contribution	2,534	n.a.	n.a.
2017			
Employee social contribution	19,850	n.a.	n.a.
Employer social contribution	3,814	n.a.	n.a.
Self-employed social contribution	2,534	n.a.	n.a.

Sources: External source: OECD revenue statistics – details of tax revenue Belgium, 2014-15.

Table 12. EUROMOD validation: child allowance

Recipients (children giving right to)	Expenditure (millions of €)

	EUROMOD simulation	External source	Ratio	EUROMOD simulation	External source	Ratio
2014	2,826,069	2,761,849	1.02	5,823	6,055	0.97
2015	2,826,069	n.a.	n.a.	5,839	6,303	0.94
2016	2,826,069	n.a.	n.a.	5,823	n.a.	n.a.
2017	2,826,069	n.a.	n.a.	5,823	n.a.	n.a.

Notes: statistics for the persons in the civil service scheme of social insurance contributions are not yet available for 2014 – these are estimated based on the statistics for 2013.
Sources: Vademecum Social Security, 2015; Federal Agency for Child Benefits (Famifed), 2014-2015.

Table 13. EUROMOD validation: birth allowance

	Recipients (children giving right to)			Expenditure (millions of €)		
	EUROMOD simulation	External source	Ratio	EUROMOD simulation	External source	Ratio
2014	105,917	n.a.	n.a.	112	n.a.	n.a.
2015	105,917	n.a.	n.a.	112	n.a.	n.a.
2016	105,917	n.a.	n.a.	114	n.a.	n.a.
2017	105,917	n.a.	n.a.	114	n.a.	n.a.

Note: From 2013 onwards, the external data source to validate birth allowance has been discontinued and so far no new sources seem available

Table 14. EUROMOD validation: income support – Incomplete take-up

	Recipients (nuclear families)			Expenditure (millions of €)		
	EUROMOD simulation	External source	Ratio EM/ES	EUROMOD simulation	External source	Ratio EM/ES
2014	152,434	178,523	0.85	1,016	643	1.58
2015	150,631	199,286	0.76	1,014	n.a.	n.a.
2016	160,410	n.a.	n.a.	1,107	n.a.	n.a.
2017	159,000	n.a.	n.a.	1,099	n.a.	n.a.

Source: FPS Social integration, 2017.

Table 15. EUROMOD validation: income support for the elderly

	Recipients (individuals)			Expenditure (millions of €)		
	EUROMOD Database	External source	Ratio	EUROMOD database	External source	Ratio
2014	116,672	111,762	1.04	530.7	506.8	1.05
2015	113,737	113,662	1.00	520.6	518.15	1.00
2016	116,672	n.a.	n.a.	530.7	n.a.	n.a.
2017	118,652	n.a.	n.a.	554.9	n.a.	n.a.

Sources: Rijksdienst voor pensioenen (RVP): Jaarlijkse statistiek op 1 januari (2012-2014) – Part II.

Table 16. EUROMOD validation: income inequality

EUROMOD	EUROMOD 2014	EUROMOD 2015	EUROMOD 2016	EUROMOD 2017
Gini Coefficient	0.22692	0.22599	0.22294	0.22328
Income quintile ratio (S80/S20)	3.226	3.205	3.163	3.818
Average income per decile (equivalised)				
1	8,853	8,860	9,141	9,149
2	13,494	13,523	13,911	13,947
3	15,717	15,743	16,186	16,259
4	17,786	17,797	18,300	18,392
5	19,865	19,824	20,360	20,471
6	22,020	21,943	22,491	22,615
7	24,236	24,185	24,783	24,917
8	27,017	26,938	27,533	27,676
9	30,695	30,558	29,856	31,293
10	41,443	41,316	41,792	42,011
Mean income (unequivalised)	41,568	41,443	42,365	42,579
Mean income (equivalised)	22,109	22,064	22,559	22,671
Median income (equivalised)	20,895	20,830	21,354	21,490

SILC	SILC incomes 2014		RATIO	Ratio EM14/SILC 15
Gini Coefficient	0.2617		Gini Coefficient	0.87
Income quintile ratio (S80/S20)	3.8191		Income quintile ratio (S80/S20)	0.84
Average income per decile (equivalised)			Average income per decile (equivalised)	
1	8,841		1	1.00
2	12,999		2	1.04
3	15,414		3	1.02
4	17,928		4	0.99
5	20,458		5	0.97
6	23,114		6	0.95
7	25,813		7	0.94
8	29,280		8	0.92
9	34,150		9	0.90
10	49,342		10	0.84
Mean income (unequivalised)	38,387		Mean income (unequivalised)	1.08
Mean income (equivalised)	23,962		Mean income (equivalised)	0.92
Median income (equivalised)	20,000		Median income (equivalised)	1.04

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. Income concepts were not top-bottom coded and negative and zero-values are taken into account for calculating inequality indices.
Sources: calculations on the basis of EUROMOD (2014-2017) and SILC2015.

Table 17. EUROMOD validation: income inequality (external source)

	EUROSTAT 2014	EUROSTAT 2015	EUROSTAT 2016	EUROSTAT 2017
Gini Coefficient	0.259	0.262	n.a.	n.a.
Income quintile ratio (S80/S20)	3.8	3.8	n.a.	n.a.
RATIO	**Ratio EM14/ EUROSTAT14**	**Ratio EM15/ EUROSTAT15**	**Ratio EM16/ EUROSTAT16**	**Ratio EM17/ EUROSTAT17**
Gini Coefficient	0.876	0.863	n.a.	n.a.
Income quintile ratio (S80/S20)	0.849	0.843	n.a.	n.a.

Sources: calculations on the basis of EUROMOD (2014-2017) and Eurostat (SILC2015).

Table 18. EUROMOD validation: poverty rates at different poverty lines (EUROMOD)

Percentage of individuals below:	EUROMOD 2014	EUROMOD 2015	EUROMOD 2016	EUROMOD 2017
40% of median equivalent income	2.87%	2.82%	2.81%	2.90%
Females	3.18%	3.13%	3.13%	3.23%
Males	2.55%	2.50%	2.48%	2.56%
50% of median equivalent income	5.86%	5.84%	5.64%	5.78%
Females	6.18%	6.16%	5.87%	6.06%
Males	5.53%	5.51%	5.41%	5.49%
60% of median equivalent income	11.37%	11.13%	10.90%	11.24%
Females	11.91%	11.69%	11.46%	11.81%
Males	10.80%	10.56%	10.32%	10.65%
70% of median equivalent income	19.71%	19.47%	19.21%	19.29%
Females	21.24%	20.85%	20.62%	20.69%
Males	18.13%	18.04%	17.75%	17.84%

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 19. EUROMOD validation: poverty rates at different poverty lines (external data)

Percentage of individuals below:	EUROSTAT 2014	EUROSTAT 2015	EUROSTAT 2016	EUROSTAT 2016
40% of median equivalent income	3.8%	3.4%	n.a.	n.a.
Females	3.9%	3.5%	n.a.	n.a.
Males	3.8%	3.3%	n.a.	n.a.
50% of median equivalent income	8.6%	7.8%	n.a.	n.a.
Females	8.6%	7.4%	n.a.	n.a.
Males	8.6%	8.1%	n.a.	n.a.
60% of median equivalent income	15.5%	14.9%	n.a.	n.a.
Females	15.9%	14.1%	n.a.	n.a.
Males	15.0%	15.6%	n.a.	n.a.
70% of median equivalent income	24.9%	23.8%	n.a.	n.a.
Females	26.2%	25.8%	n.a.	n.a.
Males	23.5%	21.8%	n.a.	n.a.

Notes: Computed for individuals according to their household disposable income (HDI) equivalised by the "modified OECD" equivalence scale. HDI are calculated as the sum of all income sources of all household members net of income tax and social insurance contributions.
Source: external data: Eurostat (SILC)

Table 20. EUROMOD validation: poverty rates at different poverty lines (external data)

Percentage of individuals below:	Ratio EM14/EUROSTAT14 2014	Ratio EM15/EUROSTAT15 2015	Ratio EM16/EUROSTAT16 2016	Ratio EM16/EUROSTAT16 2017
40% of median equivalent income	0.76	0.83	n.a.	n.a.
Females	0.84	0.95	n.a.	n.a.
Males	0.65	0.71	n.a.	n.a.
50% of median equivalent income	0.68	0.75	n.a.	n.a.
Females	0.72	0.76	n.a.	n.a.
Males	0.64	0.74	n.a.	n.a.
60% of median equivalent income	0.73	0.75	n.a.	n.a.
Females	0.75	0.75	n.a.	n.a.
Males	0.72	0.75	n.a.	n.a.
70% of median equivalent income	0.79	0.82	n.a.	n.a.
Females	0.81	0.81	n.a.	n.a.
Males	0.77	0.83	n.a.	n.a.

Notes: Computed for individuals according to their household disposable income (HDI) equivalised by the "modified OECD" equivalence scale. HDI are calculated as the sum of all income sources of all household members net of income tax and social insurance contributions.
Source: external data: Eurostat (SILC)

Table 21. EUROMOD validation: poverty rates by age groups

	EUROMOD 2014	EUROMOD 2015	EUROMOD 2016	EUROMOD 2017	SILC 2015	Ratio EM14/SILC 15
Age group						
0-15	13.22%	13.08%	12.89%	13.14%	17.9%	0.74
16-24	15.68%	15.30%	14.81%	15.44%	20.4%	0.77
25-49	10.81%	10.63%	10.27%	10.66%	14.4%	0.75
50-64	10.11%	9.90%	9.84%	10.08%	11.8%	0.86
65+	9.24%	8.85%	8.80%	9.06%	16.1%	0.57

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. Poverty line is set at 60% of median equivalent income.
Sources: own calculations on the basis of EUROMOD (2014-2017) and SILC2015

APPENDIX 3: POLICY EFFECTS IN 2016-2017

Preliminary: Indexation based on projected HICP for 2017[34]

Table 1 and Figure 1 show the effect of policy changes in 2016-2017 on the mean equivalised household disposable income by income component and income decile group, as a percentage of mean equivalised household disposable income in 2016. The effect is estimated as a difference between simulated household net income under the 2017 tax-benefit policies (deflating monetary parameters by *projected* Eurostat's Harmonized Index of Consumer Prices, HICP) and net incomes simulated under 2016 policies.

On average, the policy changes between 2016 and 2017 resulted in a 0.79% reduction in the mean disposable income of the population and have had a negative impact throughout the income distribution. In addition, the changes were of a regressive character with the bottom deciles loosing higher percentage of their income compared to the top ones. The negative changes (especially for the second and the third deciles) are mainly driven by reductions in public pensions. The first decile was particularly sensitive to reductions in means-tested and non-means-tested benefits. Changes in the self-employed contributions appear to have positive impact on incomes of the population, but it is negligible compared to the decrease in pensions. Overall, the changes in policies between 2016 and 2017 were parametric hence the reduction in disposable income is mainly due to the lack of efforts to compensate the price growth.

Table 1: Policy effects in 2016-2017, using the CPI-indexation (CPI = 1.023), %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.70	-0.56	-0.53	-0.03	0.05	-0.05	-1.81
2	0.00	-0.94	-0.26	-0.30	-0.05	0.04	0.00	-1.51
3	0.00	-1.21	-0.17	-0.14	-0.03	0.04	0.18	-1.33
4	0.00	-0.83	-0.14	-0.09	-0.06	0.04	0.11	-0.97
5	0.00	-0.71	-0.15	-0.09	-0.05	0.05	0.09	-0.87
6	0.00	-0.59	-0.12	-0.06	-0.04	0.04	0.05	-0.73
7	0.00	-0.47	-0.08	-0.05	-0.04	0.04	-0.03	-0.64
8	0.00	-0.47	-0.07	-0.04	-0.02	0.04	-0.04	-0.61
9	0.00	-0.36	-0.05	-0.04	-0.01	0.03	-0.05	-0.49
10	0.00	-0.32	-0.03	-0.12	0.02	0.05	-0.06	-0.47
Total	**0.00**	**-0.58**	**-0.12**	**-0.11**	**-0.02**	**0.04**	**0.00**	**-0.79**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2016, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2017 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

[34] Results based on the final HICP will appear in the annual EUROMOD report Effects of tax-benefit policy changes across the income distributions of the EU-28 countries: 2015-16 (updated).

Figure A1: Policy effects in 2016-2017, using the CPI-indexation (CPI = 1.023), %