

EUROMOD COUNTRY REPORT



FRANCE (FR) 2017-2020

Laurence Bouvard

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University of Essex



EUROMOD covers the 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.

The European Commission is in the process of taking over responsibility for carrying out the annual update and release of EUROMOD. The transfer of responsibility is expected to be complete by the end of 2020 and the transition is being facilitated by close cooperation between the University of Essex and the Joint Research Centre (JRC) of the European Commission as well as Eurostat.

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This report documents the work done in one annual update for France. This work was carried out by the EUROMOD core developer team, based in ISER at the University of Essex and at JRC-Seville, in collaboration with a national team.

EUROMOD director: Matteo Richiardi

EUROMOD executive director: Jack Kneeshaw

EUROMOD coordination assistant: Cara McGenn

EUROMOD developer responsible for France: Vanda Almeida and Fidel Picos (JRC)

National team for France: Laurence Bouvard and Alain Trannoy (AMSE- Aix-Marseille School of Economics)

The results presented in this report are derived using EUROMOD version I3.0. 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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BASIC INFORMATION

1.1 Basic information about the tax-benefit system

The tax-benefit system in France is mainly a national system where people are taxed the same way in whatever region they live. There are, however, exceptions for local taxes such as the land tax (“*taxe foncière*”) and the tax on occupied housing (“*taxe d’habitation*”), which are defined at the regional level. For local taxes, the rates are set every year by the local authorities.

The fiscal year runs from 1st of January to the 31st of December. The tax rules usually determine in November each year defining the tax policy of the next year. The state pension age was 60 up to 30/06/2011. After this date in 2011, reforms increased the state pension age between 62 and 67 for the full-pension. In June 2012, this reform was reversed. The amount of pension paid depends on the number of quarters worked. The state pension minimum age was 62 when the retiree have the necessary numbers of quarters of contribution which entitle to a full pension (if not, they can leave at 62 years old but they don’t received a full pension, they have penalties. If they want to earn a full pension they have to work until they had the good number of contribution quarters, that is to say at an age older then 62 years old but less than 67).

The minimum school leaving age is 16 and the school obligation start at 3 (since September 2019, before it was 6). The conditions to be considered as a dependent child entitled to family benefits are being aged less than 20 years old and earning less than 55% of the minimum wage (based on being employed 169 hours per month, looking at the gross wage) or to be disabled and under 20. These conditions are used for the calculation of social benefits.

For both benefit and tax purposes, lone parents are the parents of resident dependent children aged under 18, who

- Do not cohabit with others adults who are not dependant (disabled)
- Cohabit with adults with whom they cannot marry (mother, brother, cousin...)

The income tax system is a joint system. It is based on a tax group: the “*foyer fiscal*”. Spouses are assessed together. People who are married or who have signed a contract of civil partnership (PACS) are considered spouses.

This tax group consists of one taxpayer plus the persons who are “*fiscally*” dependent like dependent children and dependent parents.

Children are considered to be fiscally dependent if:

- They are aged under 18 (automatically)
- They are aged under 21 (and they want to be declared with their parents)
- They are aged under 25 and they are students (and want to be declared with their parents)
- They are disabled (automatically whatever their age).

Other adults can be dependent if they are disabled.

All incomes of people in the tax group are combined to calculate income tax. In France, there is a family ratio system (“*quotient familial*”) which is applied before the calculation of income tax. This family ratio gives a weight to each person in the tax group. The family ratio is applied to the total income of the tax group before it is subjected to the tax schedule.

Taxpayers have to fill in a tax return with the total of the revenue of the previous year in April-May.

Until 2018, there were two different ways to pay income tax .

- A monthly withholding, evaluated based on the amount paid the previous year. The difference between the amount actually paid and the amount payable is adjusted in September.

- 3 payments in the year evaluated on the amount paid the previous year (“*Tiers provisionnel*”). The third payment is reassessed in September depending on the amount effectively due for the year.

From 2019, France introduces a withholding income tax, the tax is deducted by the employer directly from the wage of the employee, by the pension funds for pensioner and by the employment office (“*pôle emploi*”) for the unemployed. For the self-employed professions, the levy can be paid monthly or quarterly, depending on their choice.

The amount of the withholding income tax depends on the tax rate that is proposed by administration and that is based on previous years' amount of income tax. The taxpayer may choose to increase or decrease this rate. The rate chosen by taxpayers is transmitted to employers or funds. The taxpayer must file a return of income in the spring, then, the rates will automatically be revised for the subsequent months.

Most benefits in France are indexed every year to take account of inflation (particularly for social minima). In the same way, tax brackets and the amounts involved in tax computation are re-evaluated to take account of inflation.

Most benefits are assessed monthly based on past income (of the previous year or the year before).

1.2 Social Benefits

There are broadly three types of social welfare payments in France: family benefits (means and non-means tested), replacement incomes and social assistance.

Family Allowance (“*Allocations Familiales*”, AF): Family allowance is the main child benefit in France. It is granted to households with two or more dependent children. The amount varies with the number of children and their age. There is an income threshold since July 2015.

Mean-tested Young Children Allowances (“*Prestation d'accueil du jeune enfant*”, PAJE): This mean-tested benefit is for families with children under 3.

Family Complement (“*Complément familial*”): This mean-tested allowance is targeted at families with at least three dependent children aged 3 and over.

Mean-tested education related Family benefit (“*Allocation de rentrée scolaire*”, ARS): is an annual lump-sum allowance for school children, paid in September. It is paid for each dependent child aged between 6 and 18. There is an income threshold.

Family support allowance (“*Allocation de soutien Familial*”, ASF): is not mean-tested. The benefit is paid to children under 20 who are not raised by both parents.

Education allowance for handicapped children (“*Allocation d'Education de l'Enfant Handicapé*”, AEEH) : A family is entitled to the allowance if a child under 20 has at least a 79% disability or a disability between 50% and 80% while attending special school, or if the condition requires the use of special education. The benefit amount is increased for lone parents.

Disabled benefit (“*Allocation aux adultes handicapés*”, AAH): is an allowance for disabled working age adults who cannot work because of disability. It concerns people over 20 and under 62 years of age. It is paid to persons who suffer from permanent disability of at least 80% or between 50% and 79% and have difficulties in finding substantial and sustainable employment. There is an income threshold.

Solidarity Labour Income (“*Revenu de solidarité active*”, RSA): The RSA is a guaranteed minimum income and low-earnings top-up. It was tested in 34 counties from May 2007 and then generalized to the entire country from 1 June 2009. The RSA replaces the minimum income (RMI), the single parent allowance (API) (in this case the RSA is increased), and some lump-sum aids like the grant of temporary return to work.

Activity allowance (“*Prime d’activité*”): This allowance was created from 1 January 2016 and replaces the RSA activity allowance and the PPE tax credit. There is an income threshold.

Back-to-work allowance (“*Prime de retour à l’emploi*”): A back-to-work financial aid is allocated to the beneficiaries of RSA who find a job.

Solidarity allowance for the elderly (“*Allocation de solidarité aux personnes âgées*”, ASPA): provides a minimum pension for persons aged 65 and over with limited resources. It varies according to household income.

Since 1st of January 2006, the minimum pension for elderly (“*Minimum vieillesse*”, MV) was replaced by the solidarity allowance for the elderly (“*Allocation de solidarité aux personnes âgées*”, ASPA). ASPA replaces a dozen benefits merging into a single allowance (like the allowance for elderly employed persons, allowance for elderly non-employed persons, allowance for mother etc.).

Survivor Minimum Pension (“*Allocation veuvage*”): is a minimum pension limited in time (2 years) to a spouse of a previously insured person. It applies for persons who were widowed at less than 55 years old with resources under a threshold income.

Personalized housing benefit (“*Aide personnalisée au logement*”, APL): is an aid granted to persons whose principal residence meets certain conditions, to help reduce expenses related to their principal primary residence. It applies only to tenants living in subsidized housing or owners who have to repay certain types of loans (state-subsidized loan). The amount depends on the resources and the rent paid or loan repayment.

Housing benefit (“*Allocation logement*”, AL): applies to persons not eligible for the APL because their principal residence does not respect some conditions of the APL. This allowance is divided into “*Allocation de logement familiale*”, ALF and “*Allocation de logement sociale*”, ALS. ALF is for tenants and owners if they are eligible for other benefits like the Family allowance, Family support allowance, etc. ALS is granted only to tenants and changes according to resources of the household and the number of dependent persons.

Contributory Pensions: The pension system in France is based on a PAYG system, employees contributions are used to pay pensions for retirees. It is managed by a number of bodies known as pension funds and has two components: the basic pension and supplementary pension. Retirees receive a pension which is proportional to the amount of contributions made by them during their career.

Unemployment Benefit: the unemployment compensation system consists of two regimes: the unemployment insurance (“*Régime d’assurance chômage*”, RAC) and the National Solidarity Plan (“*Régime de solidarité nationale*”, RSN). The RAC is funded by contributions from employees and employers. RSN compensates the unemployed who have exhausted their rights to unemployment insurance.

The insurance agreement in force at the time of becoming unemployed defines the maximum duration of benefits and the amount of the allowance based on past wages.

Sickness Benefit: The Health Insurance body (“*l’Assurance Maladie*”) is one of the four branches of the “*Sécurité Sociale*” (the French social protection system). It manages, at the national level, the disease and accident branches and includes the three main insurance schemes (general, agricultural and independent). It provides protection against five risks: sickness, maternity, disability, death, accidents / illnesses. Its funding is mainly provided by social security contributions on wages (employee and employer charges) as well as social contributions (CSG). Contributors (employees, unemployed, pensioners, students) and their spouses and children are insured. Universal health coverage (CMU) offers basic health insurance for everyone (especially for people who do not meet the criteria for entitlement to Social Security) and supplemental health coverage for people whose incomes are lower.

Parental leave (“*congé maternité*”, “*congé paternité*”, “*congé d’adoption*”): The Health Insurance (“*l’Assurance Maladie*”) also provides a replacement income in case of maternity, paternity or adoption in the same conditions of sickness benefit.

- *Not strictly benefits*

Student grants (*“Bourse étudiante”*): The grant is non-taxable and is means-tested on parental income. Student must be under 28 years on 1 October of the academic year, and the training must qualify to receive the grant. The aid is then awarded based on three criteria: household income tax, the number of children in the family's tax burden and the remoteness of the place of study.

1.3 Social contributions

General Social Security Contribution (*“Contribution sociale généralisée”*, CSG): The general social security contribution is a levy with a social purpose. The CSG is allocated to the social security budget and, specifically, to the national family allowance fund, the old-age solidarity fund and compulsory health insurance schemes. The contribution is paid on the income of residents of France and individuals subject to the a French compulsory health insurance scheme.

Social security debt repayment contribution (*“Contribution au remboursement de la dette sociale”*, CRDS): The CRDS is intended to clear the deficits of the social security system. Like the CSG, it is paid by individuals who are domiciled in France for tax purposes and who contribute to the French compulsory health insurance scheme.

Social contribution and other additional contributions: Individuals are liable to a social contribution (*“Prélèvement social”*), introduced in 1998, on income from personal assets and investment income. The proceeds are allocated to the old-age solidarity fund, the national retirement pension fund and the pension reserve fund. An additional contribution (*“Contribution additionnelle au prélèvement social”*) on income from personal assets and investment income, allocated to the national solidarity fund for autonomy (CNSA), was introduced in 2004. In 2009, a new additional contribution (*“Contribution additionnelle RSA”*) on income from personal assets and investment income was created, intended to fund the earned-income supplement (*“revenu de solidarité active”*, RSA). In 2013, this contribution has been removed and replaced by the solidarity contribution (*“Prélèvement de solidarité”*) based on the same incomes. In 2018, all this social contributions on capital income is 17.2% (to which is added a flat tax of 12.8%).

The collection methods for contributions are similar to those for the CSG relating to the same income. These contributions are not deductible from the income tax base.

Employee social contributions: Employee social contributions are aimed at financing the Social Security System which protects employees against the financial consequences of different risks (illness, accident, disability, unemployment) or situations (old age, widowhood). These contributions are taken on all employee wage and related incomes, on the whole gross income. There are several regimes for different types of workers.

Self-employed social contributions: Like employees, the self-employed have to pay social contributions on their gross profit into the Social Security System. There are three types of self-employed (farmers, artisans and industry/trader workers) whose contribution rate are quite different.

Employer social contributions: Employers are liable for social contributions for cover their employees against the financial consequences of old-age, illness, unemployment etc. In addition, there are social contributions used to finance the social system in different areas (family, housing) and to provide employees with the opportunity to be trained (professional training, apprenticeship).

1.4 Taxes

To finance replacement incomes, family benefits and social assistance, a number of taxes and contributions have to be paid. Employees and employers pay contributions on their wages to cover a variety of risks, old

age pensions for instance whereas family benefits, sickness (since 2018), unemployment insurance (since 2019) and housing are financed only by employer contributions.

Personal Income Tax (“*Impôt sur le revenu des personnes physiques*”, IRPP) :

Personal income tax is, in principle, a comprehensive tax levied on an individual's total income in a given year. All incomes, regardless of origin, are aggregated to give an overall (net of social contributions for the wage part) income to which a single tax scale is applied. The scale has progressive income bands. However, there are many provisions in the method for calculating income tax that allow taxation to be adjusted to personal circumstances. Personal income tax is assessed annually on a tax unit's (a “*foyer fiscal*”) taxable income in a calendar year. The system of taxation is based on the family quotient: the sum of all household incomes are added together and then divided by the number of shares before being submitted to the tax schedule.

Value Added Tax (“*Taxe sur la valeur ajoutée*”, TVA): There are 4 main rates: the standard rate of 20% since 01/01/2014 (19.6% before) applies to all taxable transactions for which no other rate exists, the reduced rate of 10 % since 01/01/2014 (before it was 7% since 01/01/2012) applies to goods and services such as restaurants, hotels, transport etc. The second reduced rate of 5.5% applies to food, utilities etc. from 01/01/2012. Before this date, the reduced rate of 5.5% applied to restaurants, hotels etc. and food utilities etc. The specific rate of 2.1% essentially concerns certain medications and certain cultural products.

Excise Duty (“*Droit d'accises*”): They are charged on alcohol and alcoholic beverages, tobacco and fuel (TIPP).

Wealth tax (“*Impôt de solidarité sur la fortune*”, ISF): is an annual progressive tax paid by individuals on account of their ownership of personal assets, when the net value of these exceeds a certain amount (1,300,000 € Euros since 1 January 2012). The tax is assessed by household, which comprises spouses, cohabiting partners and minor children. This tax has been removed in 2018 and replaced by the tax on real estate wealth (IFI).

Tax on real estate Wealth (“*Impôt sur la fortune immobilière*”, IFI): is an annual progressive tax paid by individuals because of their real estate ownership (except professional real estate) when the net value of these net real estate exceeds a certain amount (1,300,000 € Euros). The tax is assessed by household, which comprises spouses, cohabiting partners and minor children. There is a 30 % abatement on the principal residence value of the tax household.

Exceptional contribution on high incomes (“*Taxe exceptionnelle sur les hauts revenus*”): is an annual tax based on the same incomes that personal income tax. It concern people whose incomes (incomes as “*revenu fiscal de référence, RFR*”) are higher than EUR 250, 000 for singles and EUR 500 000 for couples.

Inheritance tax (“*Droits de succession*”): It is charged using a progressive tax schedule. There are many exemptions and deductions related to the type of relationship with the previous owner (spouse, children) and the nature of the donation or bequest.

Housing Tax (“*Taxe d'habitation*”, TH): Residential premises are liable for housing tax. The tax is paid by any person who, on 1 January of the year of taxation, has taxable premises at their disposal, whatever their status (owner, tenant, free occupier, but only one tax by premises independantly of the number of person living here). Housing tax is assessed on the value of residential premises resulting from valuations by the authorities. The amount of tax is calculated by multiplying the tax base by the rates voted by each beneficiary local authority for the year in question. In 2018, the government decided to reform the housing tax only for the main residence in order to exclude about 80% of the taxable households of the housing tax in 2020, for the remaining 20% of wealthiest households, it will be from 2021 to 2023. For eligible household depending on their income (RFR), the “*taxe d'habitation*” was reduced by 30 % in 2018, 65 % in 2019 and will be exonerated by 100 % in 2020.

Threshold for the 80% of less wealthiest households:

Family quotient (in number of shares)	Maximum RFR		
	2018	2019	2020
1	27000 €	27 432 €	27 706 €
1,5	35000 €	35 560 €	35 915 €
2	43000 €	43 688 €	44 124 €
2,5	49000 €	49 784 €	50 281 €
3	55000 €	55 880 €	56 438 €
3,5	61000 €	61 976 €	62 595 €
Each additional 0.5	6000 €	6096 €	6157 €

Land Tax (“*Taxe Foncière*”, TF): is levied annually on land situated in France. Taxable property includes permanent constructions perpetually attached to the ground such as premises intended to accommodate people (residential properties) or business assets (workshops, sheds) etc. The tax base is equal to 50% of the value, which is regularly updated by the authorities. The amount of tax is calculated by multiplying the tax base by the rates voted by each beneficiary local authority for the year in question. The tax is paid by the owner of the property at 1 January of the year of taxation.

Waste Tax (“*Taxe sur les ordures ménagères*”): Communes that collect household waste may introduce a household waste collection tax. When responsibility for waste disposal has been transferred to a public establishment for intercommunal cooperation, it may levy a tax provided that it at least collects the waste. The tax is assessed on the cadastral income used as the base for property tax on developed land.

1.5 Temporary support measures following the Covid-19 crisis

In May 2020, an exceptional solidarity aid for poor households linked to Covid-19 crisis was paid to beneficiaries of RSA, ASS or APL. This allowance was paid in one lump sum on May 15. The government forecasts that 4,1 million of households and 5 million of children could benefit of the allowance for a total cost of 900 million EUR (this exceptional aid is renewed in November).

Planned reforms were postponed to later date, it’s the case for unemployment benefit and housing benefit (see below in the sections specific to each benefit).

Several other measures have been taken in France to reduce the effects of the Covid-19 crisis, such as an exceptional solidarity fund to compensate firms and self-employed for turnover losses higher than 50%, when comparing March/April/May 2020 to the same months of the previous year. Eligible firms and self-employed are those with less than 10 employees, turnover below 1 million EUR and taxable profits below 60,000 EUR. The maximum compensation is 1500€ per month. Firms and self-employed fulfilling certain conditions can get an additional amount between 2000€ and 5000€.

Financial assistance can be granted to self-employed (artisans-commerçants and micro-entrepreneurs) with a maximum of 1250€, the amount given depend on the previous contributions paid by the self-employed). They can have a postponement of social and tax contributions (exoneration for micro company less than 10 employees during the lockdown period). Struggling companies can obtain government guaranteed loans or can reschedule their loans payments with their bank.

Workers can receive sickness benefit if they cannot telework or have to take care of their children while the schools are closed (until April 30, after they are in partial unemployment). The use of partial unemployment is facilitated (simplification and reinforcement), the firm pays 70 % of the gross wages (100% for smic and less) and will be reimbursed by the administration.

The partial unemployment is facilitated and the eligibility conditions are simplified (see section 2.7).

2. SIMULATION OF TAXES AND BENEFITS IN EUROMOD

2.1 Scope of simulation

We do not simulate the entire tax-benefit system in France in EUROMOD. In some cases, adequate data to feed into the simulations is not available. Some examples include lack of information on the contribution history to simulate long-term contributory benefits such as pensions, lack of information on wealth to simulate property taxes etc. As a result, some instruments are not simulated. Instead, the values reported by responded households are taken directly from the underlying microdata. Information about which tax-benefit instruments are simulated and which not, along with information about why some instruments could not be simulated is displayed in tables 2.1 and 2.2.

Table 2.1 Simulation of benefits in EUROMOD

Policy	Variable name(s)	2017	2018	2019	2020	
Family allowance (AF)	bch00_s	S	S	S	S	
Means-tested allowances for young children (PAJE)	bchyc_s	S	S	S	S	
Free choice of activity-CLCA(PAJE)	bchcc_s	S	S	S	S	
Large family benefit (CF)	bchlg_s	S	S	S	S	
Means-tested education benefit (ARS)	bched_s	S	S	S	S	
Family support allowance (ASF)	bchor_s	S	S	S	S	Benefit can only be simulated for widows/widowers with underage children; children where one parent has deserted them, as well as children where both parents have died/abandoned the child cannot be identified in the data
Special education allowance (AEEH)	bchot	IA	IA	IA	IA	No information on the disability status of children; included in other benefits for children
Disability benefit (AAH)	bdi_s	S	S	S	S	
Solidarity labour income (RSA)	bsa00_s	S	S	S	S	
Activity bonus	bsawk_s	S	S	S	S	
Return to work allowance	bsaot	IA	IA	IA	IA	No information about previous status before work; no information about continuous employment
Solidarity allowance for the elderly (ASP)	bsaoa_s	PS	PS	PS	PS	Eligibility is based on observed receipt in the data; although eligibility can be simulated fully, non-take-up of the benefit leads to severe overestimation
Survivor minimum pension (AV)	bsuwd	I	I	I	I	Simulated but turned off in the baseline; no information about when a person became widowed
Housing benefit (APL)	bhoot	IA	IA	IA	IA	No information on subsidized loans; no information on eligible subsidized tenancies; not available informations on asset values
Housing benefit (AL)	bhotn_s	S	S	S	S	Benefit simulated for rent paying tenants only; benefits paid for owners are included in bhoot; not available informations on asset values
Housing benefit (AL)	bhoot	IA	IA	IA	IA	Benefits for homeowners cannot be simulated; they are included alongside other housing benefits; not available informations on asset values
Contributory unemployment benefit (ARE)	bunct_s	PS	PS	PS	PS	No information on contribution history; eligibility approximated by receipt in the data
Means-tested unemployment benefit (ASS)	bunmt_s	PS	PS	PS	PS	Eligibility is based on observed receipt in the data; eligibility conditions can be simulated only approximately because of lack of information on

Contributory pensions	poa	I	I	I	I	previous contributions and previous receipt of the contributory unemployment benefit No information on contribution history and on past wages
Sickness benefits (AM)	bhl	I	I	I	I	No information on days of sickness; no information on previous contribution history
Disability pension	pdi00	I	I	I	I	No information on degree of disability; no information on contribution history
Survivor pensions	psu	I	I	I	I	No information about contribution history
Energy bonus		E	E	E	E	Not yet included in the microdata
Partial unemployment linked to Covid-19	bwkmcee_s	-	-	-	PS	Eligibility rules are not simulated, since they refer to firms. Allocation of workers is done randomly
Self-employment compensation linked to Covid-19	bwkmcse_s	-	-	-	PS	Eligibility rules are partially simulated, but allocation among the eligible is done randomly
Exceptional support for self-employed linked to Covid-19 (Aide CPSTI RCI COVID-19)	bseec_s	-	-	-	S	Simulation uses current self-employed social insurance contributions as a proxy of previous contributions, which are not available in the dataset
Social assistance linked to Covid-19	bsaecm_s	-	-	-	S	

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

Table 2.2 Simulation of taxes and social contributions in EUROMOD

Policy	Variable name(s)	2017	2018	2019	2020	
Personal income tax (IRPP)	tin_s	S	S	S	S	Some tax allowances and tax credits cannot be simulated due to absence of relevant information in the data
Exceptional contribution on high incomes	tinto_s	S	S	S	S	Simulation is based in the current year only and no account of the averaging with the previous 2 years is taken into account
Generalised social insurance contributions (CSG)	tscxc_s	S	S	S	S	
Insurance contributions for the repayment of the deficit (CRDS)	tscdf_s	S	S	S	S	
Social insurance contributions paid on capital income	tsckt_s	S	S	S	S	
Social insurance contributions paid by employees	tscee_s	S	S	S	S	Only the general ‘regime’ is simulated; it is not possible to identify employees belonging to the various ‘regimes’
Social insurance contributions paid by employers	tscer_s	S	S	S	S	Only the general ‘regime’ is simulated; it is not possible to identify employees belonging to the various ‘regimes’
Social insurance contributions paid by the self-employed	tscse_s	S	S	S	S	
Wealth tax (ISF)	twl	I	-	-	-	Detailed information about asset values is not available in the underlying input dataset
Real estate wealth tax (IFI)	twl	-	I	I	I	Detailed information about asset values is not available in the underlying input dataset
Housing tax (TH)	tmu	E	E	E	E	Detailed information about housing values and municipality of residence are not available in the underlying input dataset

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; “S” policy is *simulated* although some minor or very specific rules may not be simulated.

* The EUROMOD input data based on EU-SILC does not include the land tax. The EUROMOD input data based on national SILC (e.g. 2012) does include the land tax.

2.1.1 Part-simulated tax-benefit components

Some benefits use eligibility information from the data due to lack of information in the data to simulate all eligibility rules and are therefore only partially simulated. This is the case for the Solidarity allowance for the elderly (bsoa_s), Contributory unemployment benefit (bunct_s) and Means-tested unemployment benefit (bunmt_s) in France. These benefits are only simulated for those with receipt of the benefit in the data. Covid-19-related Monetary compensations for employees (bwkmcee_s) and self-employed (bwkmcse_s) are also partially simulated, since some of the eligibility conditions cannot be simulated and individuals are randomly allocated using external statistics.

- *Structural changes between 2016 and 2017*

In 2017, the implementation of the 2011 pension reform leads to a change in the minimum retirement age (62 years old) and in the minimum age to receive the full state pension (depending of the date of birth and on the number of years of cotisation: 42 or 43 years of cotisation, but the full rate is automatic at 67 years old even if your cotisations are under the threshold).

Concerning the income tax, in 2017 there is a lump sum tax reduction up to 20% of the theoretical amount of 2017 income tax granted to households whose RFR is less than 18 500EUR for a single and 37,000EUR for a couple.

Concerning social contributions, introduction of an arduousness contribution for all employers for all their employees.

In 2016, there is a reform of housing assistance (APL, AFL and ASL) in two stages:

Since July 2016, if the real rent paid is over a threshold, the benefit is suppressed. If the rent is over a determined ceiling but under a maximum threshold then the benefit is decreased.

Since October 2016, the value of the assets is taken into account in the allowance amount calculation when this is higher than 30,000 EUR. This concern the real estate assets (excluding the main residence and properties for occupational use), financial assets and movable assets.

Furthermore, beneficiaries who are dependant on a household subject to wealth tax are no longer entitled to such assistance.

- *Structural changes between 2017 and 2018*

In 2018, there is rise of 1.7 points of the general social contribution (CSG). In compensation, for workers, the contributions are decreased on sickness (-0.75%) and unemployment insurance (1.40 are removed in January 2018 and 1% in October) for employees in the private sector (that will make a reduction of 3.15 % on private employees social contribution at the end of 2018, the net reduction will be therefore 1.45% at the end of 2018). Concerning the public sector employees, the CSG increase is compensated in removing the exceptional solidarity contribution (which is 1% for those who are eligible) and in introducing a compensatory indemnity in order to erase the 1.7 points of increase of the CSG.

Concerning the retirement pensions, there is an increase of 0.8% in October 2017.

Concerning social benefits, the solidarity allowance for the elderly (ASPA) has increased by 30 euros in April 2018. The family support benefit increased by 6 euros, the increased amount of family complement raised by 16.80 euros, the PAJE baby bonus has been unfrozen following the inflation rate. Finally, the income threshold for mean-tested young children allowance (PAJE) are lowered to align with those of the family complement.

Concerning the tax on capital income, a single flat rate levy of 30 % is introduced that reduces the global capital income taxation rate.

The wealth tax (ISF) has been removed and replaced by the tax on real estate wealth (IFI).

In February 2018, a reduction of solidarity rent (RLS) was instated for tenants in social housing in order to compensate all the decrease of APL for this kind of tenants. The rent amount decrease and the APL decrease about 98% of the amount of the rent decrease.

- *Structural changes between 2018 and 2019*

In 2019 the rules of the activity allowance were modified, implying a significant increase in terms of eligible individuals and amounts. There were also increases of around 4.2% in the amounts of the means-tested allowance for the elderly, and around 5% in those of the income-tested disability benefit. The family allowance (AF) and the housing allowance (APL) increase less than inflation, only 0.3 % of increase in 2019 while inflation increases by 1.6 % in 2018. The RSA increases as much as inflation.

Concerning the housing benefits, the benchmark period for income should have been changed but was postponed, the reform decreases the current time lag. The current policy rules stipulate that the housing benefits for 2018 are calculated using incomes from 2016, the income period of reference is then income $n-2$. From 2019, the housing benefit uses more recent incomes, the benefit is calculated on the income of the previous quarter for a better match between current needs and the benefit amount paid. Because EUROMOD uses the income of the same year when simulating the entitlement to a benefit, this policy change will not influence EUROMOD simulations.

The PAJE ceilings for free choice of custody are increased by 30 %, but that have no impact on EUROMOD, this advantage is not simulated due to absence of information about child minding

The amount of the energy voucher created in 2018 is increased in order to support the very low-income households in their heating or electricity costs. The energy voucher is not simulated in EUROMOD.

The 2018's increase in the CSG rate is cancelled for pensioners whose pension is less than 2000€ per month from January 2019.

The employees SIC for unemployment insurance was cancelled from 0.95% to 0.

Since 2019 overtime pay is exempted from personal income tax (up to 5,000€ per year) and employee social insurance contributions (with some exceptions).

From 2019, France introduced a withholding income tax, the income tax is calculated on the income of the current year. In the old system, 2018 income would be taxed in 2019, for this transition year this will not be done. The change to the new way of taxation does not imply that one year will be taxed twice, this implies 2018 income will not be taxed. There will be some transition measure to tax extraordinary income from 2018 in 2019 and 2020. When introducing the new tax system, individuals and couples can choose a tax rate. This will be corrected afterwards. Because EUROMOD uses the income of the same year, this policy change will not influence EUROMOD simulations

- *Structural changes between 2019 and 2020*

Since November 2019, the government instated changes in unemployment benefit (ARE); This reform will be in two stages. First stage in November 2019, the duration of payment of the benefit, the conditions of access to the benefit and the minimum necessary working period changed. The self-employed can now access to the benefit and new possibilities are offered to those who have resigned to access to the benefit. The amount of the benefit has also been changed, but only for those who earn more than €4500 per month (this part of the reform has been temporarily suspended until January 2021 because of the Covid-19 crisis). In a second stage, in April 2020, the calculation of the benefit amount should have been changed but this part of the reform was postponed because of Covid-19 crisis.

The family allowance (AF) and the housing allowance (APL) increase less than inflation, only 0.3 % of increase in 2020 for an inflation 2019 around 1,1%. ASPA has been revalorised around 32€. ARS has been exceptionally increased by 100 € per child at school due to the Covid-19 crisis.

Regarding the housing benefits, the benchmark period for income should have been changed at 1st of April but has been postponed. The reform should decrease the current time lag. For instance, the current policy rules stipulate that the housing benefits for 2020 are calculated using incomes from 2018, the income period of reference is then income n-2. From 2020, the housing benefit will use more recent incomes, the benefit will be calculated on the income of the previous quarter for a better match between current needs and the benefit amount paid. Because EUROMOD uses the income of the same year when simulating the entitlement to a benefit, this policy change will not influence EUROMOD simulations. The reform was postponed in 2019 to April 2020, and in April 2020, the Covid-19 crisis led to a postponement probably to January 2021.

For the second year, an exceptional bonus for purchasing power can be paid by employers who want to their employee. This bonus only concerns employees whose wages are under 3 SMIC (in gross). The bonus is exempt from all social contributions and income tax, the bonus can go up to 1000€. There is however something new in 2020, the payment of this bonus is subjected to a profit-sharing agreement within the company and must be paid before July. This bonus is not implemented in EUROMOD due to the lack of information on the number of beneficiaries and to the amount of the bonus.

Regarding income tax, a reform has changed the income brackets and the associated marginal rates for the second income tax bracket (which goes from 14 to 11%) and whose income ceiling has been lowered, that has led to a reduction in the income tax of a part of the middle class (according to the government, 17 million of households should benefit from this reduction which would correspond to a drop in income tax of 5 billion Euros). Similarly, the calculation of the « décote » and its ceilings has been modified.

Pensions have been indexed to the inflation rate for retirees with low pensions (pension less than 2000 in gross per month, 1% of indexation for these households against 0,3% for the others).

Since 2020, overtime pay is fully exempted from PIT. Until 2019, only the first 5,000 EUR/year were exempted.

Several social measures have been taken in France to reduce the effects of the Covid-19 crisis including an exceptional solidarity aid for poor households for beneficiaries of RSA, ASS or APL and the postponement of planned reforms (see specific section of the beneficiary for details).

For workers, sickness benefit can be granted during lockdown for those who can't telework and partial unemployment is facilitated.

For small firms and self-employed whose turnover is impacted by the Covid crisis, postponement of social tax and contribution can be granted, and under conditions, financial assistance can be granted (see below in section 2.7).

2.2 Order of simulation and interdependencies

- *Order of simulation in 2017- 2020*

The order in which the components of the tax benefit system in France are simulated is shown in Table 2.3 below. The order in which simulations take place is largely determined by the existing interactions within the system. For example, net taxable income which serves to determine eligibility for many means-tested benefits is simulated before these benefits. Contributory unemployment benefits which are liable to income taxation are simulated before income tax, etc.

Table 2.3 EUROMOD Spine: order of simulation, 2017- 2020

Policy	2017	2018	2019	2020	Description	Main output
Setdefault_fr	on	on	on	on	Definition of default values for variables not present in the input dataset	
uprate_fr	on	on	on	on	Uprating of input data	
IlsDef_fr	on	on	on	on	Standardized income concepts	
Ilsudbdef_fr	on	on	on	on	Standard UDB income concepts	
constdef_fr	on	on	on	on	Definition of constants used in the model	
ildef_fr	on	on	on	on	Definition of standardized income lists	
tundef_fr	on	on	on	on	Definition of assessment units used in the model	
random_fr	on	on	on	on	Generation of random numbers for the take-up of RMI/RSA	i_takeup & i_takeup2
transLMA_fr	n/a	n/a	n/a	off	Modelling labour market transitions	
yem_fr	switch	switch	switch	switch	Minimum wage	Yem
neg_fr	on	on	on	on	Recoding of negative values of self-employment income	Yse
yemcomp_fr	n/a	n/a	n/a	on	Wage compensation scheme Covid-19	bwkmcee_s
ysecomp_fr	n/a	n/a	n/a	on	Self-employment compensation scheme Covid-19	bwkmcse_s
bmact_fr	switch	switch	switch	switch	Maternity leave benefit	bmact_s
bpact_fr	switch	switch	switch	switch	Paternity leave benefit	bpact_s
bunct_fr	on	on	on	on	Unemployment insurance benefit (Allocation de retour à l'emploi ARE)	bunct_s
bchor_fr	on	on	on	on	Family Support Allowance (Allocation de soutien familial ASF)	bchor_s
tscee_fr	on	on	on	on	Employee social insurance contributions	tscee_s
bch00_fr	on	on	on	on	Universal child benefit (Allocation Familiale AF)	bch00_s
tscer_fr	on	on	on	on	Employer social insurance contributions	tscer_s
tscse_fr	on	on	on	on	Self-employed social insurance contributions	tscse_s
bseec_fr	off	off	off	on	Exceptional support for self-employed linked to Covid-19	bseec_s
tsckt_fr	on	on	on	on	Social insurance contributions paid on capital income	tsckt_s
bsuwd_fr	off	off	off	off	Minimum survivor pension (Allocation veuvage AV)	bsuwd_s
tinty_fr	on	on	on	on	Net taxable income	il_rniy
tscxc_fr	on	on	on	on	Generalized social insurance contributions (Contribution Sociale Généralisée CSG)	tscxc_s
tinkt_s	on	on	on	on	Personal income tax when using flat rate taxation of capital income (Prélèvement forfaitaire non libérateur PFL)	temp_tingt1
tin_fr	on	on	on	on	Personal income tax when using the progressive tax schedule only and optimization of gross tax	temp_tingt2; tingt_s
tincot_fr	on	on	on	on	Tax credits other than PPE	tintcch_s; tintcmi_s; tintced_s
tintcee_fr	n/a	n/a	n/a	n/a	Low earner refundable tax credit (Prime Pour L'Emploi PPE) & net tax	tintcee_s; tin_s
bdi_fr	on	on	on	on	Means-tested disability benefit (Allocation aux adultes handicapés AAH)	bdi_s
bunmt_fr	on	on	on	on	Unemployment assistance benefit (Allocation de solidarité spécifique ASS)	bunmt_s
bchyc_fr	on	on	on	on	Means-tested benefit for young children (Prestation d'Accueil du Jeune Enfant PAJE)	bchyc_s

bchba_fr	on	on	on	on	Means-tested birth grant (Prime de naissance PN)	bchba_s
bchcc_fr	on	on	on	on	Parental leave supplement (Complément de libre choix d'activité CLCA)	bchcc_s
bched_fr	on	on	on	on	Means-tested education grant (Allocation de rentrée scolaire ARS)	bched_s
bchlg_fr	on	on	on	on	Means-tested benefit for large families (Complément familial CF)	bchlg_s
bhotn_fr	on	on	on	on	Means-tested housing benefits (Allocation Logement AL)	bhotn_s
bsaoa_fr	on	on	on	on	Means-tested benefit for the elderly (Allocation de solidarité aux personnes âgées ASPA)	bsaoa_s
tscdf_fr	on	on	on	on	Contribution for the deficit repayment (Contribution pour le Remboursement de la Dette Sociale CRDS)_	tscdf_s
bsa00_fr	on	on	on	on	Minimum guaranteed income (Revenu minimum d'insertion RMI/Revenu de solidarité active RSA)	bsa00_s
bsawk_fr	on	on	on	on	Activity allowance (Prime d'activité)	bsawk_s
bsaeccm_fr	n/a	n/a	n/a	on	Social assistance linked to Covid-19	bsaeccm_s
output_std_fr	on	on	on	on	Standard output file at the individual level	
output_std_hh_fr	off	off	off	off	Standard output file at the household level	

2.3 Policy extensions

Four policies can be switched on or off from the Run dialogue box using extensions:

- **Up-rating by Average Adjustment (UAA).** It is turned off by default. Turning it on from the Run dialog box causes pension income to be up-rated by charges in the average pension rather than using indexation rules.
- **Minimum wage (yem_fr).** Individual earnings in the micro-data are checked against the minimum wage in force at the 30th of June of the respective policy years. The correction consists in increasing wages of individuals showing lower earnings (adjusted for hours worked and time in employment) than the minimum wage up to the minimum wage threshold. Since there may be many reasons for having earnings lower than the minimum wage, this policy is turned off in the baseline, but it can be turned on from the Run dialogue box.
- **Parental leave benefits (maternity, bmat_fr, and paternity, bpact_fr).** They are implemented in EUROMOD for the policy years 2015-2019. Due to issues in the validation and consistency over different policy years, the policy is turned off in the baseline and it can be switched on in the Run dialogue box.
- **Benefit Take-Up Adjustment (BTA).** It controls the simulation of random non-take-up for the main social assistance benefit(s) – "Revenu de Solidarité Active" (RSA) and "Prime d'activité". By default, it is turned on. Turning it off causes the simulation of RSA/PA to assume zero non-take-up.

Additionally, four policies are turned off in the baseline and can be switched on manually:

- **LMA transitions (selection of individuals that do the transition to wage unemployment).** It triggers transitions to wage unemployment, to be used with the LMA add-on. It is turned off in the baseline, so that there are no transitions to unemployment.
- **Months and hours in wage compensation scheme (yemcomptime_fr).** It triggers transitions to Covid-19-related wage compensation schemes in 2020. It is turned off in the baseline, so that there are no eligible individuals for the corresponding policy (yemcomp_fr).

- Months and hours in self-employment compensation scheme (ysecomptime_fr). It triggers transitions to Covid-19-related self-employment compensation schemes in 2020. It is turned off in the baseline, so that there are no eligible individuals for the corresponding policy (ysecomp_fr)
- Survivors pension for widowhood ("Allocation Veuvage", AV) (bsuwd_fr). It is simulated using a number of assumptions due to lack of information in the micro dataset (See sections 2.4.7 and 2.4.12 respectively). As simulation results do not match very well administrative statistics, the simulation of AV is turned off in the baseline.

2.4 Social benefits

2.4.1 Family Allowance – bch00_s – (*Allocation Familiale, AF*)

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (based on Smic for 169 hours/month).

- *Eligibility conditions*

The benefit is paid in arrears and is received by households with two or more dependent children. In case of legal separation or divorce of the parents, the beneficiary is the parent who maintains the child.

- *Income test*

There was no income test for this benefit until 1 July 2015. From 1st July 2015, family allowance and the increased amount for child over 14 years have become means-tested. The family net taxable income (RFR) will be taken in account to determine the benefit amount. The family can receive a full rate, 50 % of the benefit amount or 25 % of the benefit amount depending on their n-2 income (RFR), that is to say income 2018 for benefit in 2020. The next table shows the different thresholds depending on the number of children.

Thresholds 2017:

Benefit rate	2 dependent children	3 dependent children	Income increase for each child after the 3 rd
Maximum annual family RFR amount (for basic benefit and for over 14 years old increase)			
<i>Full rate</i>	≤ 67408	≤ 73025	+ 5617
<i>Rate at 50%</i>	67408 < RFR ≤ 89847	73025 < RFR ≤ 95464	+ 5617
<i>Rate at 25%</i>	> 89847	> 95464	+ 5617

Thresholds 2018:

Benefit rate	2 dependent children	3 dependent children	Income increase for each child after the 3 rd
Maximum annual family RFR amount (for basic benefit and for over 14 years old increase)			
<i>Full rate</i>	≤ 67542	≤ 73170	+ 5628
<i>Rate at 50%</i>	67542 < RFR ≤ 90026	73170 < RFR ≤ 95654	+ 5628
<i>Rate at 25%</i>	> 90026	> 95654	+ 5628

Thresholds 2019:

Benefit rate	2 dependent children	3 dependent children	Income increase for each child after the 3 rd
Maximum annual family RFR amount (for basic benefit and for over 14 years old increase)			
<i>Full rate</i>	≤ 68217	≤ 73901	+ 5684
<i>Rate at 50%</i>	68217 <RFR≤ 90926	73901 <RFR ≤96610	+ 5684
<i>Rate at 25%</i>	> 90926	> 96610	+ 5684

Thresholds 2020:

Benefit rate	2 dependent children	3 dependent children	Income increase for each child after the 3 rd
Maximum annual family RFR amount (for basic benefit and for over 14 years old increase)			
<i>Full rate</i>	≤ 69309	≤ 75084	+ 5775
<i>Rate at 50%</i>	69309 <RFR≤ 92381	75084 <RFR ≤98156	+ 5775
<i>Rate at 25%</i>	> 92381	> 98156	+ 5775

- *Benefit amount*

The benefit amount is the amount below multiplied by the percent above.

The monthly amount depends on the number and age of dependent children in the household (gross from CRDS) and on the household income:

	2017	2018	2019	2020
<i>Monthly amount</i>				
2 dependent children	130.51	131.82	132.21	132.61
3 dependent children	297.72	300.70	301.61	302.51
Each child after the 3rd	167.22	168.88	169.41	169.91
Increase for child over 16 **	65.26	-----	-----	-----
Increase for child over 14***	65.26	65.91	66.11	66.30
Fixed amount paid to families of 3+ children with eldest of 20-21	82.52	83.35	83.61	83.86

*the amounts change each 1st of April except in 2015 (temporary freeze to reduce expenses).

**for child born before 1st of May 1997.

*** for child born after 30th of April 1997.

----- end of this benefit.

For families with only 2 dependent children, the increased amount for children over 14 year concerns only the second child. The increases for children over 14 is not paid for the first child.

The fixed amount paid to families of 3+ children is paid under two conditions:

- One of the children is 20, lives at home; if he works, he earns less than 55% of the minimum wage calculated on 169 hours/month in gross (or 78% of net SMIC based on 151,67 hours/month), That is to say, 918.35 EUR in 2018, 932.29 EUR in 2019 and 943.44 EUR in 2020.
- The family has received benefits for at least three children in the month before the 20th birthday.

Qualifying families receive a monthly lump sum until the month before the child turns 21. As AF, this lump sum is paid at full rate, 50% or 25% depending on net taxable income (RFR).

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits. If one of the children receives APL, it means that he has his own home, therefore the household is no longer eligible for AF.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for activity allowance and RSA), but subjected to CRDS.

- *EUROMOD notes*

The benefit is simulated based on the age of children at the end of the income reference period. No benefit is simulated for children who reach the age threshold during the income reference period as their month of birth is unknown. Similarly, the age-based increase is simulated for the entire year for children who turn 14 in the income reference period. The supplement for children aged 20 is simulated for the entire year whenever a person aged 20 (who is not head or partner) is living with at least two dependent children.

2.4.2 Mean-tested Young children allowance – *bchyc_s* – (*Prestation d'Accueil du Jeune Enfant PAJE, Allocation de base*)

Mean-tested young children allowance contains:

- The PAJE base amount ("*allocation de base*"): mean-tested benefit for children under 3.
- The baby bonus ("*prime de naissance*"): mean-tested bonus for childbirth.
- The supplement for free choice of custody ("*complément de libre choix du mode de garde*"): for families with children born after 2004 and aged less than 6 when parents work, are under the income threshold and employ a certified person for care their child. Not simulated in EUROMOD due to the lack of information about child minding.
- The supplement for free choice of activity ("*complément de libre choix d'activité*"): this allowance replaces the Parent education allowance ("*allocation parentale d'éducation*", APE) for children born after 2004.

Since 1st January 2015, the supplement for free choice of activity was modified and replaced by "*Prestation partagée d'éducation de l'enfant (PreParE)*", see below.

- *Eligibility conditions*

PAJE: The benefit is received by households with children under 3.

Starting with April 1st 2014, the benefit was reformed. Children born after April 1st are subject to a new set of rules. The entitlement of children born before this date is unaffected, i.e. the old rules apply.

The income test depends on the number of parents who work. For two earner couples, a minimum threshold applies to the earnings of each parent in order to be considered a two earner couple. If each member of the couple earns less than the threshold (see below) they are considered as a one earner couple and the one earner threshold applies.

Annual individual income threshold to be considered an earner (for income n-2):

	2017	2018	2019	2020
Each member of the couple should earn more than	5173	5252	5335	5404

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (calculated on a 169 h/month basis). The assessment unit includes parents (married or cohabiting) and their dependent children.

- *Income test*

Entitlement to the PAJE base amount is subject to an income test. Family income in year n-2 must be below the threshold. The different ceilings depends on the date of birth of the child.

Ceilings A: For child born before 1st of April 2014:

Ceilings granting access to the benefit:

Yearly amount	2017*
One earner couples	
One dependent child	35871
Two dependent children	43045
Three dependent children	51654
Each child after the third	8609
Two Earner couples or lone parent	
One dependent child	47405
Two dependent children	54579
Three dependent children	63188
Each child after the third	8609

*for child born before 1st of April 2014

For children born after 1st of April 2014, there are new ceilings. Also, the benefit is no longer flat rate but depends on income.

Ceilings B: For child born after 1st of April 2014

Ceilings B1: Ceilings granting access to the benefit, child born between April 2014 & March 2018:

Yearly amount	2017	2018	2019	2020
One earner couples				
One dependent child	35872	35944	36304	36884
Two dependent children	42341	42426	42851	43535
Three dependent children	48810	48907	49397	50186
Each child after the third	6469	6482	6547	6651
Two Earner couples or lone parent				
One dependent child	45575	45666	46123	46860
Two dependent children	52044	52148	52670	53511
Three dependent children	58513	58630	59126	60162
Each child after the third	6469	6482	6547	6651

Ceilings C: For child born after 1st of April 2018

Ceilings C1: Ceilings granting access to the benefit, child born after April 2018:

Yearly amount	2018	2019	2020
One earner couples			
One dependent child	31345	31659	32165
Two dependent children	37614	37991	38598
Three dependent children	45137	45589	46318
Each child after the third	7523	7598	7720
Two Earner couples or lone parent			
One dependent child	41425	41840	42509
Two dependent children	47694	48172	48942
Three dependent children	55217	55770	56662
Each child after the third	7523	7598	7720

- *Benefit amount*

Since the 1st of April 2014, the monthly amount depends on parents' income.

If the income of the parents is below ceiling 2, the family is entitled to 100% of the benefit amount. If income is above ceiling 2 but below ceiling 1, the benefit is reduced to 50% of the full amount.

Children born before April 1st 2014 continue to receive the full amount if the income of the parents is below ceiling 1.

For children born between April 2014 and March 2018, the income ceilings for a full rate benefit amount are:

Ceilings B2 for full rate between 1st of April 2014 and 31 March 2018:

Yearly amount for full benefit	2017	2018	2019	2020
One earner couples				
One dependent child	30027	30086	30388	30875
Two dependent children	35442	35511	35868	36443
Three dependent children	40857	40937	41348	42011
Each child after the third	5415	5425	5480	5568
Two Earner couples or lone parent				
One dependent child	38148	38223	38606	39224
Two dependent children	43563	43648	44086	44792
Three dependent children	48978	49074	49566	50360
Each child after the third	5415	5425	5480	5568

The families whose incomes are above ceilings 2, but below ceilings 1 receive the partial amount of the benefit.

Ceilings C2 for full rate after 1st of April 2018:

Yearly amount for full benefit	2018	2019	2020
One earner couples			
One dependent child	26236	26499	26923
Two dependent children	31483	31799	32308
Three dependent children	37780	38159	38769
Each child after the third	6297	6360	6461
Two Earner couples or lone parent			
One dependent child	34673	35020	35580
Two dependent children	39920	40320	40965
Three dependent children	46217	46680	47426
Each child after the third	6297	6360	6461

The families whose incomes are above ceilings 2, but below ceilings 1 receive the partial amount of the benefit.

The monthly amount per family (and not per child except for multiple births) is (gross from CRDS):

	2017	2018*	2018**	2019*	2019**	2020*	2020**
Monthly amount (full rate)	185.54	185.54	171.57	185.54	172.09	185.54	172.60
Monthly amount (partial rate)	92.77	92.77	85.79	92.77	86.04	92.77	86.30

*child born between 1st of April 2014 and 31 March 2018 whose parents earn income above the second ceilings (ceilings B2) and below the first ceilings (ceilings B1).

**child born after 1st of April 2018 whose parents earn income above the second ceilings (ceilings C2) and below the first ceilings (ceilings C1).

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits, except for the Family Complement and Family Support Benefit (ASF).

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for activity allowance and RSA), but subjected to CRDS.

- *EUROMOD notes*

The income test is calculated based on yearly net taxable income during the income reference period (rather than past taxable income). The simulation is based on the age of children at the end of the income reference period. Consequently, no benefit is simulated for children turning three during the income reference period. Conversely, the benefit is simulated for the entire year for children born during the income reference period. The new rules are simulated for all children born in 2014 or 2018 irrespective of their month of birth. Variable *bchyc_s* contains only the PAJE base amount. The baby bonus and the supplement of free choice of activity are simulated and stored in variables *bchba_s* and *bchcc_c* (see below). The supplement for free choice of custody is not simulated due to absence of information about child minding.

2.4.2.1 Baby bonus – *bchba_s* – (*Prime de naissance*)

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (based on 169h/month).

- *Eligibility conditions*

Have a child born in the year, or have adopted a child under 20 years of age, comply with the conditions of eligibility to the baby bonus (“*PAJE allocation de base*”).

- *Income test*

For child born between April 2014 - March 2018, the annual family net taxable income must be below (ended in 2020):

Yearly amount	January 2017	January 2018
One earner couples		
One dependent child	35872	35944
Two dependent children	42341	42426
Three dependent children	48810	48907
Each child after the third	6469	6482
Two Earner couples or lone parent		
One dependent child	45575	45666
Two dependent children	52044	52148
Three dependent children	58513	58629
Each child after the third	6469	6482

For child born after 1st of April 2018, the annual family net taxable income must be below (these are the same as Ceilings C1):

	2018	2019	2020
One earner couples			
One dependent child	31345	31659	32165
Two dependent children	37614	37991	38598
Three dependent children	45137	45589	46318
Each child after the third	7523	7589	7720
Two Earner couples or lone parent			
One dependent child	41425	41840	42509
Two dependent children	47694	48172	48942
Three dependent children	55217	55770	56662
Each child after the third	7523	7598	7720

- *Benefit amount*

The lump-sum is for each child born in the year (gross from CRDS):

	2017	2018	2018*	2019	2019*	2020*
Childbirth	927.71	927.73	946.41	927.73	949.26	952.08
Adoption	1855.42	1855.46	1892.82	1855.46	1898.51	1904.17

*For child born after 1st of April 2018

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits, but subjected to CRDS.

- *EUROMOD notes*

No information exists in the data about adoptions. Only the benefit for childbirth is simulated. The income test is based on current yearly net taxable income rather the previous taxable income.

2.4.2.2 Supplement for free choice of activity – bchcc_s – (PreParE)

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (based on 169h/month).

- *Eligibility conditions*

- Have at least one child under 3 years of age
- Stop or partially stop working to take care of the child. The beneficiary must have made social security contributions for 8 quarters out of the previous two years if it is the first child, of the previous 4 years if it is the second child or of the previous 5 years if it is the 3rd + child.

- *Income test*

The benefit is not means-tested.

- *Benefit amount*

For the first child if parents are in couple, each parent can have the benefit for at most 6 months from the birth/end of maternity leave within the child’s first birthday. For lone parents the benefit is paid at most 12 months within the child’s first birthday.

If there are two or more children, the benefit is paid from the birth/end of maternity leave until the month before the 3rd birthday of the youngest but the benefit can be claimed (by either parent) for a maximum of 24 months (within the limit of the youngest child’s third birthday). For lone parents the benefit is paid from the birth/end of maternity leave until the month before the 3rd birthday of the youngest.

If birth is given to triplets, the benefit is paid from the birth/end of maternity leave until the month before the 6th birthday but each parent can have this benefit only at most 48 months. For lone parents the benefit is paid from the birth/end of maternity leave until the month before the 6th birthday of the child.

Concerning child adoptions, if there is one child in the family, each parent can have the benefit for at most 12 months. If there are other children in the family, each parent can have the benefit for at most 12 months. If after this period, the child is less than 3 years old, the parents can have the benefit until the 3rd child birthday.

If an adoption concerns at least 3 children, parents can have the benefit for the first 36 months after adoption.

Gross amount from CRDS	2017	2017*	2018	2019	2020
Non-receipt of PAJE base amount					
Full rate (stop working completely)	581.46	394.06	398	399.20	400.39
Reduce work to < 50%	442.15	254.74	257.30	258.07	258.83
Reduce work to 50-80%	334.35	146.94	148.42	148.86	149.32
Receipt of PAJE base amount					
Full rate (stop working completely)	394.06	-----	-----	-----	-----
Reduce work to < 50%	254.74	-----	-----	-----	-----
Reduce work to 50-80%	146.94	-----	-----	-----	-----

*child born after 1st of April 2014

If there are three children, the family can opt for “*PreParE Majorée*”. Each parent can have the benefit for at most 8 months from the birth/end of maternity leave until the child’s first birthday. For lone parents, the benefit is paid for at most 12 months until the child’s first birthday.

It’s subjected to the same contribution requirements as the *PreParE* at the following rate (gross from CRDS):

<i>PreParE Majorée</i>	2017*	2018	2019	2020
Non-receipt of PAJE base amount	644.12	650.56	652.52	654.46

*child born after 1st of April 2014

- *Compatibilities*

This benefit is not compatible with paid holidays, maternity/paternity/adoption leave, sick leave or unemployment benefit.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for activity allowance and RSA), but subjected to CRDS.

- *EUROMOD notes*

Detailed information on contribution history is not available. Eligibility is based on fulfilling the contributory requirement of 2 years of contributions during the entire work history. Thus, the difference in contribution requirements between children of different birth orders is not simulated. Amounts are simulated based on earnings and current working hours. Entitlement to the out of work amount is based on absence of earnings during the entire income reference period. Reduced amounts corresponding to reduced working time are based on current (rather than contemporaneous) working hours. When only one child is present, the benefit is simulated for 6 months during the income reference period conditional on the child being aged 0 (i.e. it is assumed the benefit is paid in the first year after birth) and no entitlement of children aged 1 & 2 is simulated when only one child is present. It is assumed a parent always takes up the “*PreParE Majorée*” if entitled. In practice, this means this benefit is simulated for all entitled parents (i.e. parents who fulfil the contribution requirements and stop working) whose third child is aged 0. It is assumed this benefit is not paid for children aged 1 and 2. The simulation is based on the ages of the children at the end of the income reference period, i.e. benefits received for only part of the year (before a child turns 3 or 1) are not simulated. Only the incompatibility with unemployment benefits and sickness benefits is simulated. Since the other benefits are short term ones and no information about their receipt within the year is available. Other incompatibilities are not simulated.

Higher benefits for adoption and longer benefits for triplets are not simulated.

2.4.3 Mean-tested education related Family benefit – *bched_s* – (*Allocation de rentrée scolaire, ARS*)

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (based on 169h/month).

- *Eligibility conditions*

Have at least one child aged 6 to 18 who is attending school. The child must not earn more than 55% of the minimum wage (based on 169h/month).

- *Income test*

The income test depends on the number of dependent children:

Euros per year	2017	2018	2019	2020
One dependent child	24404	24453	24697	25093
Two dependent children	30036	30096	30396	30884
Three dependent children	35668	35739	36095	36675
Each child after the third	5632	5643	5699	5791

Starting in 2012, households who slightly exceed the income threshold are eligible for the residual amount of this benefit (“*ARS différentielle*”, AD) if their revenue is less than the threshold, plus the relevant benefit amount, where N is the number of children.

$$(AD = \text{income threshold} + (ARS_{6-10} * N_{6-10}) + (ARS_{11-14} * N_{11-14}) + (ARS_{15-18} * N_{15-18})) - \text{income}) / N$$

with a minimum payment of €15

The income used here is the net taxable income.

- *Benefit amount*

The benefit is paid by child. The yearly amount depends on the child’s age (gross from CRDS):

Benefit amount per child	2017	2018	2019	2020
6-10 years	365.92	369.58	369.85	371.81*
11-14 years	386.10	389.97	390.95	392.31*
15-18 years	399.49	403.48	405.02	405.91*

* in 2020, due to **covid-19** crisis, these amount are exceptionally revalorised by 100 € (in net), the amounts are: 472.31, 492.82 and 506.41.

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits, but subjected to CRDS.

- *EUROMOD notes*

The simulation is based on current rather than previous taxable income. It uses ages of children at the end of the income reference period rather than at the start of the school year.

2.4.4 Family support benefit – bchor_s – (*Allocation de soutien familial, ASF*)

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (based on 169h/month).

- *Eligibility conditions*

Must be a lone parent or other (e.g. grandparent) where the other parent (or both) is deceased or has abandoned the child or does not pay alimony.

- *Income test*

This benefit is not means tested

- *Benefit amount*

The monthly amount per child is (gross from CRDS):

Benefit amount	2017	2018	2019	2020
Child living with lone parent	110.20	115.88	116.22	116.57
Child living with no parents	146.82	154.47	154.93	155.41

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for social assistance (*RSA*) and Activity allowance), but subjected to CRDS.

- *EUROMOD notes*

The benefit is simulated only for children of widows/widowers. It is not possible to identify children whose parents have abandoned them. Likewise it is not possible to identify children whose both parents are deceased.

2.4.5 Family Complement – *bchlg_s* – (*Complément familial*):

- *Definitions*

Children are considered as dependent persons if they are aged under 21 and earning less than 55% of the minimum wage (based on 169h/month). Children under 21 who are themselves parents may be considered dependent if not receiving family allowances.

- *Eligibility conditions*

Have at least 3 children all aged 3 years or more. The amount is the same for all families regardless of the number of dependent children, but since 1st of April 2014, the monthly benefit amount depends on parents' income and on the number of dependent children.

The child must not earn more than 55% of the minimum wage (based on 169h/month).

- *Income test*

The income test depends on the number of parents who work. For two earner couples, a minimum threshold applies to the earnings of each parent in order to be considered a two earner couple. If each member of the couple earns less than the threshold (see below) they are considered as a one earner couple and the one earner threshold applies.

Annual individual income threshold to be considered an earner:

	2017	2018	2019	2020
Each member of the couple should earn more than	5173	5252	5335	5404

Ceiling 1:

Yearly income for family with 3 children	2017	2018	2019	2020
One earner couples	37705	37780	38159	38769
Two earner couples or lone parent	46125	46217	46680	47426
Increase for each dependent child after 3 rd	6284	6297	6360	6461

The income used here is the net taxable income.

Ceiling 2 for receiving the increased amount after 1st April 2014:

Yearly income for family with 3 children	2017	2018	2019	2020
One earner couples	18857	18893	19081	19388
Two earner couples or lone parent	23067	23111	23341	23716
Increase for each dependent child after 3 rd	3143	3149	3180	3231

The monthly amount is per household (gross from CRDS):

	2017	2018	2019	2020
Basic monthly amount	169.88	171.57	172.09	172.60
Increased monthly amount**	237.90	257.38	258.15	258.92

**increased monthly amount (after 1st of April 2014 for parents whose income are below ceilings 2).

- *Benefit amount*

Before 2014, the amount is flat rate for all families that qualify. Since 1st of April 2014, the monthly amount depends on parents income and new ceilings have been established to determine the benefit amount. If parents' income is below ceiling 2, the family receive the increased amount. If the income is between ceiling 1 and ceiling 2, it receives the standard amount.

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits except with the PAJE (basic allowance and supplement for free choice of activity). If the household is eligible to PAJE, the CF is not paid. If one the children receives APL, it means that he has his own home, therefore the household is no longer eligible to CF.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for activity allowance and RSA), but subjected to CRDS.

- *EUROMOD notes*

The simulation of the income test is based on current rather than previous net taxable income. The age condition relating to the definition of a child is implemented using the age at the end of the income reference period, i.e. children who turn 21 during the year are not considered to be dependent children. Thus, any partial year entitlements on account of such children are not simulated.

2.4.6 Disabled benefit – bdi_s – (*Allocation aux adultes handicapés, AAH*)

- *Definitions*

Adult: To be aged over 20 and less than 62.

Dependent children: aged under 20 and earning less than 55% of the minimum wage

- *Eligibility conditions*

The beneficiary must be disabled with a permanent disability of at least 80%, or a disability between 50 and 80% and be unemployable (for medical reasons). The income test is carried out using total couple income, including any income of dependent children.

- *Income test*

Annual income	2017	2018	2019	2020
Single	9730.68	9828	10320	10832
Couple	19461.36	19656	19505	19607
for each child	4865.34	4914	5160	5417

There is a 100% withdrawal rate if the (threshold – benefit) < income < threshold

- *Benefit amount*

The benefit is differential, the monthly benefit is:

$$AAH = (\text{Threshold} - \text{Income}) / 12$$

Family income is defined as the monthly net taxable income, used for the establishment of the income tax.

The monthly maximum benefit is:

Net from CRDS	2017	2018	2019	2020
Maximum Monthly benefit	810.89	819	860	902.7
Supplement for those disabled for at least one year * (with a minimum of 80% incapacity)	179.31	179.31	179.31	179.31*

* This supplement has been removed for new requests since Decembre 1, 2019, for disabled who received it before this date, they will continue to received it during 10 years if they fulfill the conditions (80% incapacity, disabled for at least one year, are under 62, receive AAH at full rate, live in an independent accomodation).

There are additional amounts which are allowed with an increasing level of disability. All cannot be simulated.

The increase for independent living ("*Majoration pour la vie autonome*") is awarded to the disabled who receive AAH at a full rate or AAH as a complement to old age or invalidity (i.e. who do not work).

The monthly lump-sum is:

	2017-2020
Increase for independent living	104.77

Those who are eligible for both the supplement and for the increase for independent living have to choose between the two benefits.

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits except with AEEH.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for activity allowance and social assistance (RSA). Not subject to CRDS.

- *EUROMOD notes*

No information on the degree of disability exists in the data. The benefit is simulated for all individuals who fulfil the income criterion and report themselves as being disabled (pl031=8). The income test is simulated on current rather than previous taxable income. The increase for independent living is simulated for individuals receiving AAH at the full rate, as well as for individuals reporting zero earnings. No other additional amounts are simulated.

2.4.7 Survivor Minimum Pension – bsuwd_s – (*Allocation veuvage, AV*)

- *Eligibility conditions*

Widow/er not remarried aged under 55. The deceased spouse must have contributed to the old-age insurance at least 3 months during the year preceding the death. This pension is paid for 2 years.

- *Income test*

The monthly widow/er’s income for the 3 last months must be below:

	2017	2018	2019	2020
Monthly income	753.42	759.43	770.82	778.53

The income taken into account includes the net taxable income of the widow/er (i.e. earned income, pensions, unemployment benefit, self-employment and capital income, all in gross terms) excluding family benefits and AAH.

- *Benefit amount*

The monthly benefit given is:

	2017	2018	2019	2020
Monthly benefit	602.73	607.54	616.65	622.82

- *Compatibilities*

This benefit is compatible with national or regional benefits.

- *Taxation and income testing*

Taxable like pension income for personal income tax but not subject to CRDS and CSG.

- *EUROMOD notes*

The simulation of this benefit is turned off and the original variable in the dataset used instead in the baseline. There is no information in the input dataset about the year a person has become widowed. As a result, the benefit is simulated for all widows/widowers who pass the income test. The income test is simulated using current rather than past taxable income.

2.4.8 Solidarity Labour Income – bsa00_s – (RSA) from 2009

The RSA aims to ensure a minimum income per month. The amount of the benefit is equal to the difference between the maximum RSA (lump sum + 62% of net household income from work) and others household resources (including the package of housing assistance). Since 2016, this benefit is in principle given only to those out of work. For low-paid workers, a new benefit has been introduced: the activity allowance, “*Prime d’activité*”.

The lump-sum is determined by the household composition and the number of dependent children. The RSA is increased for those who meet the previous conditions for Mean-tested lone parents benefits (API).

- *Definitions*

Dependent Children: Children under 20. Children over 20 years and under 25 living at home may be considered dependent in the RSA sense provided their own income is very low (< 55% of SMIC).

- *Eligibility conditions*

Be over 25, or less than 25 with a dependent child or pregnant, and be aged under 65 (or not entitled to the Minimum Pension for Elderly). Youths 18-25 years of age and without children are eligible if they have worked for at least two years out of the last three years.

- *Benefit amount*

$$\text{RSA} = (\text{Maximum minimum income based on family characteristics} + 62\% \text{ family quarterly working income}/3) - (\text{family quarterly income}/3 + \text{housing package})$$

Family working income includes income from work (Wages, bonuses, overtime pay, unemployment benefits and sickness benefits), net of social security contributions (i.e. employment and self-employment income before taxes and transfers). The housing package is a lump-sum subtracted only for people who received the AL. The family quarterly income includes:

- the quarterly net taxable income (working income, invalidity pensions, alimonies, others pensions and incomes from capital (investment income, savings income and property income))
- all quarterly social minima (RSA, AAH), and family benefits (AF, ASF, PAJE and CF only)

In 2013, the French government decided to increase the RSA amount by 10% until 2017. So the reform consist in increasing by 2 % the RSA amount each first of September.

This growth is independent from the annual increase that occurs in January.

However, this independent increase in September is not simulated in the year it occurs. It is included in the following year.

The end of year bonus was introduced in 2012 and it consists of a yearly lump-sum paid to RSA recipients who are entitled to the benefit in November or December.

The minimum incomes are:

	2017		2018		2019	
	MI	HP	MI	HP	MI	HP
Lone parent with children under 3						
Pregnant without child	689.29	64.41	707.47	66.11	718.78	67.17
One dependent child	919.05	128.83	943.29	132.22	958.37	134.34
Two dependent children	1148.82	159.42	1179.11	163.63	1197.97	166.24
Each child after the 2 nd	229.76		235.82		239.59	
Everyone else						
Single						
Without dependent child	536.78	64.41	550.93	66.11	559.74	67.17
One dependent child	805.17	128.83	826.40	132.22	839.62	134.34
Two dependent children	966.20	159.42	991.68	163.63	1007.55	166.24
Each child after 2 nd	214.71		220.37		223.89	
Couple						
Without dependent child	805.17	128.83	826.40	132.22	839.62	134.34
One dependent child	966.20	159.42	991.68	163.63	1007.55	166.24
Two dependent children	1127.24	159.42	1156.95	163.63	1175.47	166.24
Each child after 2 nd	214.71		220.37		223.89	

MI as Minimum Income, HP as Housing Package

	2020	
	MI	HP
Lone parent with children under 3		
Pregnant without child	725.24	67.77
One dependent child	966.99	135.55
Two dependent children	1208.74	167.74
Each child after the 2 nd	241.74	
Everyone else		
Single		
Without dependent child	564.78	67.77 (12% of rsa amount)
One dependent child	847.17	135.55 (16%)
Two dependent children	1016.60	167.74 (16,5%)
Each child after 2 nd	225.91	
Couple		
Without dependent child	847.17	135.55 (16%)
One dependent child	1016.60	167.74 (16,5%)
Two dependent children	1186.04	167.74
Each child after 2 nd	225.91	

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End of year bonus	2017-2020
Single	
Without dependent child or pregnant	152.45
One dependent child	228.67
Two dependent children	274.41
Each child after 2 nd	60.98
Couple	
Without dependent child	228.67
One dependent child	274.41
Two dependent children	320.14
Each child after 2 nd	60.98

Exceptional solidarity allowance linked to Covid-19 crisis :

This allowance is paid in one lump sum to poor households in order to deal with unforeseen expenses linked to **Covid-19** crisis. Indeed, modest families have to feed their children for lunch (in normal times, they eat in the canteen, which cost is almost entirely borne by the community), and they have to deal with the impossibility to go the food banks. This exceptionnal allowance is paid to RSA beneficiaries, 150€ for single person or for a couple, with 100€ in addition for each child. This allowance is also paid to ASS beneficiaries only if they are not beneficiaries of RSA. This allowance is also paid to APL beneficiaries (only the child part, not the household lump sum) if they are not beneficiaries of RSA or ASS.

- *Compatibilities*

This benefit is compatible with national or regional lump-sum child benefits.

- *Taxation and income testing*

The RSA is not taxable and not included in the income test of other benefits and not subjected to CRDS.

- *EUROMOD notes*

No benefit is simulated for pregnant women. To simulate the benefit, age at the end of the income reference period is used. Lone parents are identified as parents of dependent children without a partner in the dataset. Children aged less than 25, earning less than 55% of SMIC and living with other adults are always considered as dependent. The income test is simulated using current yearly income rather than previous quarterly income. Thus, shorter periods of eligibility may be missed. Family total income is the sum of earnings, taxable pensions, benefits (unemployment, family, sickness and disability), other market incomes (property, investment etc.) minus social insurance contributions, CSG and CRDS. When a household receives housing benefits, the lower between the actual benefits and the housing package is deducted. A random non-take up of approximately 60% for those in employment and 30% for those not in employment is also simulated. In 2017, the non-take up is around 40% (https://www.secours-catholique.org/sites/scinternet/modules/sc_custom/sc_prejuge_pauvres/rapport/Rapport_statistique_pauvre_ete_2017.pdf).

Employment is established based on the presence of yearly earnings. Thus, individuals having no earnings throuout the year are considered to be not working. Otherwise, they are considered to be in work. Starting in 2016, only individuals not in work are simulated to receive this benefit. Individuals in work are assumed to receive activity allowance (“*Prime d’activité*”). Entitlement to the end of year bonus is calculated based on annual average incomes and the benefit is then assigned to approx. 16% of those eligible to mimic the fact that only families receiving the benefit in November and December would be entitled.

2.4.9 Activity allowance – bsawk_s – (*Prime d’activité*) from 2016

Before January 2016, the RSA benefit was paid to low-income workers. The amount was a top-up on their earnings, until reaching the monthly amount of RSA.

Since 1st January 2016, the Activity allowance (“*prime d’activité*”) replaced The RSA activity (“*RSA activité*”) and PPE. The aim is to encourage inactive people to take a job. It is given to families (or single person) with at least one person in work, and calculated each 3 months and given monthly.

In January 2019, the bonus amount increased by 90 EUR and earnings limits were increased between 222€ and 854€, depending on the family composition.

- *Definitions*

Children under 20 are considered as dependent children for the activity allowance. Children over 20 years and under 25 living at home may be also considered dependent provided that their own income is below 55% of SMIC.

- *Eligibility conditions*

This benefit concern both employees and self-employed persons. For the self-employed, the turnover is used to know if they can access to the benefit. The turnover ceilings depends on the specificity of self-employment.

Ceilings for self-employed are :

	2019		2020	
	Last 12 months	Last quarter	Last 12 months	Last quarter
Industry and traders	82800	20700	170000	42500
Artisans	33200	8300	70000	17500
Farmers	82800	20700	82800	20700
Liberal professions	33200	8300	70000	17500

To qualify, the monthly work income has to be below the threshold. The threshold depends on the family composition, as follows:

Threshold	2017	2018	2019	2020
Single person without child	1500 (1.3 SMIC*)	1565 (1.3 SMIC*)	1787 (1.5 SMIC*)	1806 (1.5 SMIC*)
Lone parent with 1 child	2200	2200	2494 (1.7 SMIC)	2494 (1.7 SMIC)
Couple without child (1 earner)	2200	2200	2794 (1,9 SMIC)	2794 (1,9 SMIC)
Couple with 1 child where one parent works	2200	2200	2918	2918
Couple with 1 child where both parents work	2900	2900	3330	3330

Couple with 2 children where one parent works	2900	2900	3342	3342
Couple with 2 children where both parents work	2900	2900	3754	3754

*hourly SMIC net for 151.67 hours

- *Benefit amount*

The allowance amount depends on the family composition and on the family quarterly income and is based on the following formula:

Step 1 = (Maximum minimum income based on family circumstances + 61% family work income + Bonus) – (family work income + housing package)

In step 1, the percent of income have changed in October 2018, before it was 62 %.

Step 2 = Maximum minimum income – family work income – housing package

Step 3 = step 1 – step 2

Activity allowance amount is:

If step 2 > 0, the allowance amount is equal to step 3.

If step 2 ≤ 0, the allowance amount is equal to step 1.

The maximum minimum income is based on the lump sum:

	2017	2018	2019	2020
Lump sum	528.89	534.2	551.51	555.94

This lump sum could be increased according to the household composition:

- 50 % for the first additional person

- 30 % for the second additional person

- 40 % per additional person beyond the 3rd person if the household has more than 2 dependent children or persons under 25, except for the person who live in couple with the beneficiary.

Concerning lone persons with children or pregnant, the increased amount is 128.412 % of the maximum minimum income, adding to it 42.804 % of the maximum minimum income for every child.

The family working income is the same as defined for RSA. The family total income is defined in the same way as for RSA (AAH, APL, ALS, AF, CLCA, Paje base and CF are included). Paje PN, CMG and ARS are not taken into account in the calculation of the total income and since 2018, disability pensions, pensions for accident at work and pensions for occupational diseases too.

The housing package is :

	2017	2018	2019	2020
Single person	64.41	66.11	67.17	67.77
Lone parent with 1 child	128.83	132.22	134.34	135.55
Lone parent with 2+ children	159.42	163.63	166.24	167.74
Couple with no children	128.83	132.22	134.34	135.55
Couple with 1 or more children	159.42	163.63	166.24	167.74

Bonus amount for activity allowance:

Concerning the bonus, each family member who works can benefit from the bonus but the amount is capped for each worker in the family. The individual bonus amount depends on individual work income; the bonus is paid if individual work income is between 0.5 and 1.4 SMIC in 2018, 0.5 to 1.5 Smic in 2019 and 2020 (based on net Smic).

- For individuals with a monthly work income less than 0.5 SMIC (=59*hourly gross SMIC), the bonus is equal to 0.
- For individuals with a monthly work income over 120 times the hourly gross SMIC, the bonus is fixed and capped at :
 - 12.782% of the lump sum per month until 2018 (67.27 € in April 2018)
 - 29.101% of the lump sum since 2019 (160.97€ per month)
- For individuals with a monthly work income between 59 and 120 times the hourly gross SMIC (598.85€-1218€) in 2020 or between 59 and 95 gross hourly SMIC before 2019, the amount is **variable** but less **than the capped amount**.

These amounts are calculated with the formula:

- From 2016 to 2018:

$$(0.12782 * \text{lump sum}) * (1 - ((95 * \text{hourly gross Smic}) - \text{work income}) / (95 * \text{hourly gross Smic} - 59 * \text{hourly gross Smic}))$$

- Since 2019:

$$(0.29101 * \text{lump sum}) * (1 - ((120 * \text{hourly gross Smic}) - \text{work income}) / (120 * \text{hourly gross Smic} - 59 * \text{hourly gross Smic}))$$

This activity allowance is paid from 18 years old.

The allowance is not taken into account in the income for calculation of the income tax and is not given for amounts less than 15 €.

- *Taxation and income testing*

The activity allowance is not taxable and not included in the income test of other benefits but subjected to CRDS.

- *EUROMOD notes*

This benefit is simulated for all individuals who fulfil the income test and are observed to have positive earnings. Earnings are calculated over the year. As a result, the model may overestimate PA receipt and underestimate RSA receipt. The earnings limit to qualify for the benefit is likewise calculated using information about annual earnings. There is no information about the turnover of self-employed in the dataset. As a result, specific eligibility conditions for the self-employed are not simulated. Instead, the self-employed are assumed to be eligible if their net profit satisfies the same conditionality as that applicable to employees. The bonus amount is calculated using annual information about work income. The take-up is 73 % at the end of the year 2016 (57 % at the beginning of the benefit in 2016 in “*solidarites-sante.gouv.fr/IMG/pdf/rapport_d_evaluation_prime_d_activite.pdf*”), and 78 % in 2019. The variable is not disaggregated in the UDB but simulated in EUROMOD.

2.4.10 Energy bonus– (*Prime energie*) from 2018

From 2018, this bonus replaces the gas and electricity social prices granted to low-income households. It takes the form of a voucher that is sent directly to the beneficiaries without any administrative action. This voucher can be used in paiement of a part of the energy bill, the beneficiaries have just to give it to their energy supplier.

This bonus is given at once in March-April each year.

- *Eligibility conditions*

Persons with limited resources and who filed in his income tax return.

The bonus is granted according to the household composition and on his the “*Revenu Fiscal de Référence*” (RFR, see below 2.6- Personal income tax).

The household members are taken into account as consumption unit (CU).

Consumption unit:

	2018-2020
First person of the household	1
Second person of the household	+ 0.5
Each supplementary person	+ 0.3

The access is granted if the household’s RFR by consumption unit is under the ceiling below:

	2018	2019-2020
Maximum RFR by consumption unit	7700	10700

For example, a couple with 2 children must not exceed a RFR of 22.470 € in 2020 ($2.1 \times 10.700 = 22.470$).

- *Benefit amount*

The benefit amount is based on the household composition and on the RFR.

	2018			2019-2020			
	(RFR/CU) < 5600€	5600€ ≤ (RFR/CU) < 6700€	6700€ ≤ (RFR/CU) < 7700€	(RFR/CU) < 5600€	5600€ ≤ (RFR/CU) < 6700€	6700€ ≤ (RFR/CU) < 7700€	7700€ ≤ (RFR/CU) < 10700€
1CU	144	96	48	194	146	98	48
1 < CU < 2	190	126	63	240	176	113	63
≥ 2 CU	227	152	76	277	202	126	76

- *Compatibilities*

This benefit is compatible with national or regional benefits.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits and not subjected to CRDS.

- *EUROMOD notes*

The variable is not disaggregated in the UDB and cannot be simulated in EUROMOD.

2.4.11 Solidarity allowance for the elderly – bsaos_s – (*Allocation de solidarité aux personnes âgées, ASPA*)

- *Eligibility conditions*

Persons aged 65 and over with limited resources and retired (not working).

- *Benefit amount*

The benefit is differential at the level of the couple:

ASPA= Monthly Maximum amount – Quarterly Family income/3

Family quarterly income does not include family benefits or housing benefits (i.e. the quarterly net taxable income + AAH)

The maximum income depends on the family situation:

	2017	2018	2019	2020
Single	803.20	833	868.20	903.20
Couple	1246.97	1293.54	1347.88	1402.22

The couple amount is applied if at least one person is aged 65 or over.

- *Compatibilities*

This benefit is compatible with national or regional benefits.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits and not subjected to CRDS.

- *EUROMOD notes*

Eligibility for this benefit is restricted to individuals reporting receipt in the data. While it is technically possible to fully simulate the benefit, doing so results in substantial overestimation of both the number of recipients and the amounts. The income test is carried out using current yearly income rather than previous quarterly income. The age condition is simulated using age at the end of the income reference period. Thus, a full year worth of benefits is simulated for individuals turning 65 during the income reference period who in reality, would have been entitled only during part of the reference year.

2.4.12 Housing Benefits – bhotn_s – (*Allocation Logement, APL and AL*)

- *Definitions*

Children are considered as dependent persons if they are aged under 20 and earning less than 55% of the minimum wage (based on 169h/month).

Dependent persons : all the dependent children and disabled close family members (parents, grandparents, sisters, brothers...) or parents and grandparents over 65 living in the household who earn less than 55% of the minimum wage.

The unit of assessment is the entire household.

- *Eligibility conditions*

Be a renter of subsidized housing, sub-renter or first time buyer.

Since July 2016, if the real rent paid is over a threshold, the benefit is suppressed. If the rent is over a determined ceiling but under a maximum threshold then the benefit is decreased.

Since October 2016, the value of the assets is taken into account in the allowance amount calculation when this is higher than 30000 EUR. This concern the real estate assets (excluding the main residence and properties for occupational use), financial assets and movable assets.

Furthermore, beneficiaries who are dependant on a household subject to wealth tax or tax on real estate wealth are no longer entitled to such assistance.

A reform iniatially planned for 2019, then postponed to 2020 has been postponed again due to covid-19, the reform provides that the income reference period changes, the income reference period will correspond to the previous quarter but this will have no impact on EUROMOD simulations.

- *Benefit amount*

The general formula giving the amount of housing benefit is as follows (it is the same for APL and AL):

$$AL \text{ or } APL = L + C - Pp - Mfo$$

L: real rent up to the limit of a certain ceiling

C: lump-sum charge

Pp: minimal personal participation

Mfo: lump sum voted each year

The system presented here is the more “general” system relating to the rental sector. We do not take into account the specificities of the calculation on residential homes (“*Logement-foyer*”), roommates or specific loans.

(1) Real Rent (L):

The real rent is taken into account up to a limit of a monthly ceiling, depending on the number of dependent persons and on the geographical zone. Older children are not considered dependent persons but their incomes are included in the assessed household income.

Year	October 2016 to September 2017			October 2017 to September 2019		
	I	II	III	I	II	III
Geographical Zone						
Single	292.85	255.23	239.31	295.05	257.14	241.00
Couple without dependent person	353.20	312.40	289.99	355.85	314.74	292.16
Lone parent/couple with one dependent person	399.19	351.53	325.15	402.18	354.17	327.59
Lone parent/couple with two dependent people	457.10	402.69	371.75	460.52	405.71	374.54
Increase for each dependent person	57.91	51.16	46.60	58.34	51.54	46.95

Year	October 2019 to September 2020		
	I	II	III
Geographical Zone			
Single	295.93	257.92	241.73
Couple without dependent person	356.92	315.69	293.04
Lone parent/couple with one dependent person	403.39	355.23	328.57
Lone parent/couple with two dependent people	461.91	406.93	375.66
Increase for each dependent person	58.52	51.70	47.05

The zone depends on the geographical area:

Zone I : Paris and region “*Ile de France*”

Zone II: cities with more than 100.000 inhabitants and Corsica

Zone III: all others cities.

Since July 2016, real rent paid is used to determine if the benefit is abolished or not. It depends on the geographic zone and on the previous L amount who intergrate the family composition.

If the rent actually paid is above C1 but under C2 then the allowance is decreased, if rent paid is above C2 the benefit is abolished.

2018-2020	C1	C2	Eg. 2020 For Single
Zone I	>3.4 L	≥ 4 L	(between 1006.17 EUR and 1183.72 EUR)
Zone II	>2.5 L	≥3.1 L	(between 644.8 EUR and 799.55 EUR)
Zone III	>2.5 L	≥3.1 L	(between 603.3 EUR and 749.36 EUR)

The increase for each dependent person are also multiplied by the corresponding coefficient.

If the rent actually paid is between C1 and C2, the decreasing rate applied to the allowance amount is defined as:

$$\alpha = \frac{\text{rent paid} - C1}{C2 - C1} \quad \text{with} \quad \alpha = 0 \text{ when the rent paid is } \geq C2 \text{ and then APL} = 0$$

$$\alpha = 1 \text{ when the rent paid is } = C1$$

$$0 < \alpha < 1 \text{ when the rent paid is between } C1 \text{ et } C2$$

So, if and only if rent actually paid is between C1 and C2, the allowance amount will be:

$$\text{new APL} = \text{APL} (1 - \alpha)$$

(2) Lump-sum charge (C):

The monthly amount depends on the number of dependent persons:

	2017	2018-2019	2020
Single person/couple without dependent person	53.27	53.67	53.83
Single person/couple with one dependent person	65.34	65.83	66.03
Increase for each dependent person	12.07	12.16	12.20

(3) Minimal personal participation (Pp):

Pp is computed as follow:

$$Pp = P0 + Tp * Rp$$

P0 : minimal participation

Tp: Personal participation rate

Rp : Resources

- P0 minimal participation:

$$P0 = \text{Max} (P0_{\text{forf}}, [8.5 \% * (L+C)])$$

	2017	2018-2019	2020
P0 _{forf} (€ per month)	34.76	35.02	35.13

- Tp Personal participation rate:

Tp is computed as:

$$Tp = Tf + Tl$$

Tf is given by:

	2017-2020
Single	2.83%
Couple without dependents	3.15%
Lone parent/couple with one dependent person	2.70%
Lone parent/couple with two dependent persons	2.38%
Lone parent/couple with three dependent persons	2.01%
Lone parent/couple with four dependent persons	1.85%
Lone parent/couple with five dependent persons	1.79%
Increase for each dependent person	-0.06%

Tl:

Tl is computed as follow:

$$Tl = L / \text{Rent Baseline}$$

The rent Baseline is:

	2017	2018- 2019	2020
Single	255.23	257.14	257.92
Couple without dependent	312.40	314.74	315.69
Lone parent/couple with one dependent	351.53	354.17	355.23
Lone parent/couple with two dependents	402.69	405.71	406.93
Increase for each dependent	51.16	51.54	51.70

Finally, TI is obtained by the value of RL as follows:

$$TI = \text{Rate} * RL - \text{Rate Min}$$

With :

RL	2017-2020	
	Rate	Rate Min
0-45%	0%	0%
45-75%	45%	20.25%
>75%	68%	37.50%

- Rp Resources:

Rp is defined as the difference between the family income (2 years before until 2019, incorporating assets values) and a lump-sum R0.

R0 is given by (yearly amounts):

	2017-2018	2019	2020
Single	4562	4573	4588
Couple without dependent person	6534	6553	6572
Lone parent/couple with one dependent person	7793	7816	7839
Lone parent/couple with two dependent persons	7969	7992	8015
Increase for each dependent child	305	305	305

The family income is the “*Revenu Brut global*” used in the income tax.

(4) Lump sum (Mfo):

Since October 2017, the AL amount is reduced by a lump sum voted each year, since October this amount is 5 Euros. Moreover, since October 2017, the minimum payment goes from €15 to €10.

In February 2018, a reduction of solidarity rent (RLS : « *Réduction du loyer de solidarité* ») was introduced. It consists in a decrease of housing benefit APL for tenants with low incomes living in social housing. This decrease of APL is compensated by an equivalent reduction in the monthly rent. Only people eligible for RLS are entitled to a decrease in housing benefit, the reduction in rent being linked to the APL decrease.

To be eligible:

- the beneficiaries must rent a social housing (except sheltered house and overseas housing).
- they must respect the following resource ceilings

Year	2018-2020		
	I	II	III
Single	915	854	828
Couple without dependent person	1102	1042	1008
Lone parent/couple with one dependent person	1403	1329	1289
Lone parent/couple with two dependent people	1669	1837	1536
Lone parent/couple with three dependent people	2043	1943	1877
Lone parent/couple with four dependent people	2357	2243	2169
Lone parent/couple with five dependent people	2624	2497	2411
Lone parent/couple with six dependent people	2905	2764	2671
Increase for each dependent person	283	266	247

<https://www.anil.org/aj-reduction-loyer-solidarite-rls-apl/>

The RLS amount is updated each year in January. Similarly, the maximum ceiling is indexed to the rent reference index (IRL).

Monthly amount of rents decreases for social housing (RLS): :

Year	2018-2019			2020		
	I	II	III	I	II	III
Single	32.33	28.18	26.41	49.50	43.14	40.43
Couple without dependent person	38.99	34.48	32.01	59.70	52.79	49.01
Lone parent/couple with one dependent person	44.06	38.80	35.89	67.46	59.40	54.95
Increase for each dependent person	6.39	5.65	5.14	9.78	8.65	7.87

In the case someone is living on the same address, but is not part of the households, each of these persons or households can benefit from the rent reduction if his income does not exceed the ceilings, but within the limit of 75% of the reduction.

The Amount of APL decreases for the eligible beneficiaries is set to **98% of RLS** for 2018, 2019 and 2020. The rate is fixed each year and varies from 90% to 98 %.

In fact, this rent reduction only applies to the poorest families benefiting from APL. This reform doesn't result to any loss since the decrease in APL is fully offset by the reduction in rent, the gains generated are minimal.

Due to lack of information on the use of social housing, this reform cannot be implemented in EUROMOD.

Exceptional solidarity allowance linked to **Covid-19** crisis :

This allowance is paid in one lump sum in May to poor households in order to deal with unforeseen expenses linked to **Covid-19** crisis. This allowance is paid to all APL beneficiaries if they are not beneficiaries of RSA or ASS. The amount is 100€ per child.

- *Compatibilities*

This benefit is compatible with national or regional benefits.

- *Taxation and income testing*

Not taxable and not included in the income test of other benefits (except for activity allowance and RSA) but subjected to CRDS.

- *EUROMOD notes*

Only the general benefit for tenants paying rent is simulated. Benefits for home owners/ tenants in free accommodation are not simulated due to absence of required information in the dataset. The three zones upon which the benefit depends are imputed based on geographical region (db040) and population density (db100). The income used in the income test is yearly rather than quarterly. Also rent paid is calculated using a monthly average of rent paid throughout the entire year. The change in the income reference period in 2019 has no impact on EUROMOD simulations because EUROMOD uses the income of the same year when simulating the entitlement to a benefit. Due to lack of information on social housing the reform of February 2018 (a reduction of the solidarity rent, RLS) is not simulated in EUROMOD.

2.4.13 Unemployment Benefit – *bunct_s* – (*Allocation de retour à l'emploi, ARE*)

- *Eligibility conditions*

Since November 2019, people who have been in activity at least 6 months during the last 24 months (for less than 53 years old, 36 months for people 53 years old and older) are eligible to receive unemployment benefits if they did not leave their job voluntarily and are actively looking for work. On conditions, people who leave their job voluntarily (if they have an approval professional project and if they worked 5 years during the last 60 months) can benefit. For self-employed, they can earn an amount of 800€/month during 6 months if their previous income of the last 2 years is more than 10 000€ per year and if their company is in legal redress. These last two cases, people who leave their job voluntarily and the self-employed, are not simulated in EUROMOD as there is yet no information on the beneficiaries in the original EU-SILC data.

Before November 2019, people who have been in activity at least 4 months during the last 28 months (for less than 53 years old, 36 months for people 53 years old and older) are eligible to receive unemployment benefits if they did not leave their job voluntarily and are actively looking for work. No benefit for people who leave their job voluntarily nor for self-employed.

- *Income test*

There is no income test for this benefit. The benefit amount depends on the salary earned during the last 12 months.

- *Benefit amount*

The benefit amount depends on:

- the sum of gross earned income received during the last 12 months before the last day worked
- the mode of activity : full-time, part-time.

The calculation of this amount is based on the gross daily reference wage ("*Salaires journaliers de référence*", *SJR*) with:

$$\text{SJR} = \frac{\text{sum of gross earned income during the last 12 months before the last day worked}}{(365 - \text{days of absence or without a contract})}$$

The amount of the benefit is 40.4% of the SJR + the fixed allocation (12 euros per day in 2020). The benefit cannot be lower than the minimum benefit mentioned in the table below (29.26*RF euros for 2020) and cannot be higher than 75% of the SJR.

Since 1st of July 2014, the amount is the higher amount between 40.4% of the SJR + the fixed allocation or 57% of the SJR.

For part-time workers, we compute the reduction factor as:

$$RF = (\text{number of hours worked in part-time work}) / (\text{legal number of hours})$$

Since 1st November 2019, people whose wage is more than €4500/month (in gross) had a reduction of their benefit by 30 % starting from the 7th month of unemployment, with a min threshold of €2261 net/month.

Parameters	2017	2018	2019	2020
Fixed allocation	11.76*RF	11.84*RF	11.92*RF	12*RF
Minimum Benefit	28.67*RF	28.86*RF	29.06*RF	29.26*RF

Note: since July 2011, the amount is increased each first of July. In this table it's the amount at 30th June.

The monthly benefit is the daily benefit multiplied by the number of days in the month. The benefit duration is based on the rule “one day worked, one day of compensation”, the duration is one day worked*1.4 in order to convert the days worked (5 per week) into days of allowance (7 per week))

Before 2009, the eligibility condition was to have worked at least 4 months in the last 28 months (88 days or 610 hours) and to be registered to the employment office. The maximum duration (age at the date of the end of the work contract) is 24 months for people under 50 years old and 36 months over 50 years old.

From 2009 to October 2019, the eligibility condition was to have worked at least 4 months in the last 28 months (88 days or 610 hours) for people under 53 years and during the last 36 months for people over 53 years old, and to be registered to the employment office. The maximum duration depended on age (age at the date of the end of the work contract) and on number of days worked (see below), it extends from 4 to 36 months.

Since November 2019, the eligibility condition is to have worked 130 days (6 months) or 910 hours during the last 24 months for people less than 53 years old (36 months for those more than 53 years old). The maximum duration depends on the number of days worked and on age, 24 months for less than 53 years old, for those 53 years and more, it's then between 30 and 36 months (53-54 years old=30 months, 55 years old=36 months).

- *Taxation and income testing*

Taxable and included in the income test of other benefits, subjected to CRDS and CSG.

Characteristics of the unemployment benefit:

		2017-2019	November 2019-2020
Eligibility	Contribution period	Min of 4 months in the last 28 months	Min of 6 months in the last 24 months
	Other conditions	(for +53 years, 4 months in the last 36 months)	(for +53 years, 6 months in the last 36 months)
	Self-employed	No (specific help before November 2019)	800€/month during 6 months under conditions*
	Workers who quit	Resignation deemed legitimate by administration**	Resignation deemed legitimate by administration**

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Payment	Contribution base	Gross earning			Gross earning	
	Basic amount		40.4% of the gross daily reference wage + fixed allocation			40.4% of the gross daily reference wage + fixed allocation
	Additional amount					
	Floor	28.67/day (2017)	28.86/day (2018)	29.06/day (2019)	29.06/day (2019)	29.26/day (2020)
	Ceiling	Maximum 75% of the gross daily reference wage			Maximum 75% of the gross daily reference wage	
	Regressivity				For gross wages >4500€, and less than 57 years old, 30% less starting from the 7 th months of unemployment (after 182 days of unemployment) (with a minimum threshold of 2261€ net/month)***	
Duration	Standard (in months)	number of days worked *1,4 with a maximum of 730 calendar days for less than 53 years old (913 for 53-54 years old, and 1095 for 55 and more)			number of days worked *1,4 with a maximum of 730 calendar days for less than 53 years old (913 for 53-54 years old, and 1095 for 55 and more)	
	Special cases (in month)	In case of part time activity, the maximum is 12 months			In case of part time activity, the part time rate is taken into account (rate=nb hours/35 apply to the 29,26€ and to the fixed allocation) the maximum depend on the same calculation of the full time	
Subject to	Taxes	Yes			Yes	
	SIC	Yes (3% for retirement)			Yes (3% for retirement)	

**The self-employed must have been in the same company for 2 years, the company must be in reorganization or liquidation and the 2 previous years annual turnover must be at least 10 000€. The income of the applicant for the benefit must be less than RSA at the time of the request and he must prove he's seriously looking for a job.*

***For workers who have resigned, the resignation is legitimate if objective reasons justify it, such as follow his partner or parents in other region, after a marriage, in case of domestic violence...or if the applicant has left his job for another one and he lost this other job within 65 days of recruitment. In other cases of resignation, the benefit can be obtained after 4 months (121 days) of unemployment (4 months not compensated) if the eligibility conditions are fulfilled and in case of serious and active job search. Since November 2019, a new possibility has been offered to resigners to access to the benefit, it's to resign to build another professional project (the project must be accepted by administration before resignation).*

**** This part of the reform was temporarily suspended until January 2021.*

Covid-19 measures for employment :

- 1- Exceptional extension of compensation period for ARE for those whose rights expire between March 1 and May 31 (addition of 92 calendar days if the end of rights is between March 1 and 31, 61 calendar days if rights expire between April 1 and 30, 31 calendar days for an end between May 1 and 31). This measure is not simulated in EUROMOD due to lack of data.
- 2- Affiliation reference period has been automatically extended by the number of days between March 1 and May 31. This period becomes 27 months (24 before) for employees under 53 years old and 39 months (36 before) for employees aged 53 and over. This measure is not simulated in EUROMOD. This measure is not simulated in EUROMOD due to lack of data.

- 3- Adjustment of the duration of compensation and the daily reference wage (SJR): The days not covered by an employment contract between March 1 and May 31, 2020 will not be taken into account to determine the duration of the compensation and the amount of the reference daily wage (SJR) which is used as the basis for the calculation of the daily amount of unemployment benefit for job seekers whose employment contract ends from January 1, 2021. This measure is not simulated in EUROMOD due to lack of data.
- 4- Exceptionally, the required contribution period is reduced for employees whose employment contract ends between August 1, 2020 and December 31, 2020. It is set at 4 months in order to take into account the health crisis related to **Covid-19** (decree n ° 2020-929 of July 29, 2020). This measure is not simulated in EUROMOD due to lack of data.
- 5- Exceptionnally, for the degressivity introduced in November 2019, the 2 months of lockdown were not taken into account in the 6 months after witch the benefit decreases. During summer 2020, it was decided to suspend the 182-day counter after which the degressivity will appear until January 2021 (from March to December 2020, the 182-day counter doesn't run). For those whose 182-day counter started before lockdown, the degressivity will apply at the earliest in April 2021.
- 6- 2 new cases of legitimate resignation are authorized (applicable from April, 16 until May,31) for employees who resigned from their job before the lockdown period in order to take another salaried activity which did not finally materialize, or which the employer has terminated.
- 7- Extension of the deadline for registering with Pôle emploi (normally, registration must take place within 12 months of the end of the employment contract. This period is extended by days not covered by an employment contract between March 1, 2020 and May 31, 2020). This measure is not simulated in EUROMOD due to lack of data.
- 8- In the context of the **Covid-19** health crisis, access to partial unemployment was facilitated in order to avoid massive dismissal (see section2.7).

- *EUROMOD notes*

No information exists in the dataset on contribution history. As a result, the simulation of eligibility approximates to a large extent observed receipt in the data. The age condition is simulated using age at the end of the income reference period. Thus, individuals who have turned 65 during the period and might have been entitled to the benefit for part of the year are considered ineligible. Previous earnings have been imputed from the observed amount of the received benefit by inverting the benefit rules. The difference between full-time and part-time workers is not simulated as the number of hours worked in the previous year is not observable in the data. All entitled individuals are considered to have worked full time. If the upper limit of the benefit (75% of SJR) is lower than the minimum benefit, the upper limit is enforced based on the assumption that such a situation may arise only for part-time workers for whom the minimum benefit is not properly simulated (i.e. it is over simulated). Duration of the benefit is simulated assuming the same number of months has been worked in each year as in the current year. Duration of benefit receipt is simulated to be at least the number of months in receipt observed in the data.

2.4.14 Unemployment Assistance– *bunmt_s* – (*Allocation de solidarité spécifique, ASS*)

- *Eligibility conditions*

People who have exhausted their rights to unemployment insurance, who have been employed for at least 5 years during the last 10 years, are aged under 60 and actively looking for a job are eligible for unemployment assistance.

- *Income test*

The income taken into account for the income test is the couple’s net taxable income (RNI) except the unemployment benefit previously earned, but including the ASS itself.

The monthly income should be under:

Monthly income	
Single	70 times the daily amount
Couple	110 times the daily amount

The computation method also depends on the same couple’s income. The benefit is either a lump-sum (full rate) or calculated differentially. The thresholds for receiving the full rate are:

Monthly income	Full rate
Single	Under 40 times the daily amount
Couple	Under 80 times the daily amount

- *Benefit amount*

The daily benefit amount is :

	2017	2018	2019	2020
Daily amount	16.27	16.48	16.74	16.89

The monthly amount is obtained by multiplying the daily amount by 30.

If the couple’s income is below the full rate threshold (i.e. 40 times the daily amount for a single person, 80 times for a couple), the monthly benefit is the daily amount multiplied by 30.

If the couple income is above the threshold for the full rate amount, the benefit will be

$$30 * \text{daily amount} - (\text{Couple's income} - \text{Full rate threshold})$$

- *Compatibilities*

This benefit is not compatible with unemployment benefit ARE and RSA, but compatible with AAH before 2017 (not after for new request, for those who received the two allowances before January 2017, under eligibility conditions, the two allowances combined for 10 years).

- *Taxation and income testing*

The Unemployment Assistance is taxable, but it is not subjected to CRDS. The benefit is included in the income test of other benefits.¹

Table 1: Characteristics of the unemployment assistance

		2017-2020			
Eligibility	Contribution period	n/a			
	Other conditions	Employed at least 5 years in the last 10 years, under 60 years old, looking for a job, exhausted unemployment insurance.			
	Eligibility of self-employed	No			
Payment	Contribution base	Net taxable income (couple)			
	Basic amount	16.27/day	16.48/day	16.74/day	16.89/day
	Additional amount	-			
	Floor	n/a			
	Ceiling	If the household income is below the full rate threshold (i.e. 40 times the daily amount for a single person, 80 times for a couple): daily amount*30 If the household income is above the threshold for the full rate amount, the benefit will be 30*daily amount – (households' income – Full rate threshold)			
Duration	Standard (in months)	6 months renewable as long as the beneficiary fulfilled the conditions of eligibility			
	Special cases (in month)	-			
Subject to	Taxes	Yes			
	SIC	No			

Exceptional solidarity allowance linked to **Covid-19** crisis :

This allowance is paid in one lump sum to poor households in order to deal with unforeseen expenses linked to **Covid-19** crisis. This exceptionnal allowance is paid to all ASS beneficiaries only if they are not beneficiaries of RSA or APL, 150€ for single person or for a couple, with 100€ in addition for each child.

- *EUROMOD notes*

There is no detailed information about contribution history in the data. The condition of 5 years worked in the last 10 is approximated by checking that the individual has worked at least 5 years throughout his entire work career. It is assumed that all potential recipients are actively looking for work. The exhaustion of contributory unemployment benefits (ARE) is checked by comparing months in unemployment with the imputed/ simulated number of months receiving ARE. The income test is simulated based on current yearly income. Due to time period mismatched, the simulated benefit does not approximate well observed receipt in the data. Incompatibilities with RSA are not simulated. Instead, ASS is included in the income test of RSA.

¹ **Simulation assumption:** ASS is taxable and at the same time its income test depends on taxes. In order to deal with this circularity, taxes (including income tax and CRDS) are calculated using the data variable and not the simulated variable. The simulated variable is calculated after taxes are computed.

2.4.15 Sickness benefit (« *congé maladie* ») and Parental leave (« *congé maternité* », « *congé paternité* », « *congé adoption* »)

- *Definitions*

The parental leave and the sickness benefit are replacement income provide by The Primary Health Insurance (CPAM) for employee. In case of sick leave, maternity, paternity or adoption leave, the employee receives daily social security benefits.

The parental leave and the sickness benefit are subject to almost the same conditions of grant detailed below.

Concerning the three different parental leave in France, the duration of leave changes depending on the situation in view of the number of children in the household, and the number of children expected or adopted.

The benefit is paid fortnightly in arrears, it depends on the previous salaries and on the number of days of leave. The first payment will be received after 14 days.

1- Sickness benefit (bhl)

- *Eligibility*

If you are an employee, you receive daily social security allowances if you fulfill the conditions of entitlement, which vary according to the duration of inactivity and the contributions.

If the individual is out of work for **less than 6 months**

- the employee must have worked at least 150 hours in the 3 calendar months or 90 days prior to the inactivity; or have contributed on a salary equal to at least 1015 times the amount of the hourly SMIC during the 6 calendar months preceding the inactivity.

- or, failing that, in the case of a seasonal or intermittent activity, having worked at least 600 hours or contributing on a salary of at least 2030 times the amount of the hourly SMIC, during the 12 calendar months or 365 days before the beginning of the inactivity.

If the period of inactivity is **longer than 6 months**, it is considered a long-term inactivity. The employee **must be registered at least 12 months** as a socially insured at the date of the beginning of the inactivity; and he (she) must have worked at least 600 hours in the 12 calendar months or 365 days prior to the inactivity; or have contributed on a salary equal to at least 2030 times the amount of the hourly SMIC during the 12 calendar months preceding the inactivity.

- *Benefit amount*

The daily allowance is equal to half of the daily wage for the last 3 months (the last 12 months in the case of a seasonal or intermittent activity). This daily wage is equal to the total of the last 3 wages (in gross) divided by 91.25 (to take into account the fact that the benefits paid include Sundays and holidays).

Importantly, these remunerations are taken into account only up to a ceiling equal to 1.8 times the SMIC (maximum amount in January 2020 was 45,55 Eur ($\frac{1539.42 \cdot 1.8 \cdot 50\%}{30.42}$). From the 31st day of absence from work, this amount is increased to 2/3 of the daily wage, calculated on the same basis, **only** for employees with at least 3 children (maximum amount in January 2020 was 60.73 Eur ($\frac{1539.42 \cdot 1.8 \cdot 66.66\%}{30.42}$). The daily allowance cannot be less than the minimum amount of the disability pension, increased by one third for employees with at least 3 dependent children.

	Gross hourly Smic	Gross monthly Smic		Gross annual Smic		Date
		for 151.67 hours of work*	for 169 hours of work	for 151.67 hours of work*	for 169 hours of work	
2017	9.76	1480.27	1649.4	17763.2	19793.3	01/01/2017
2018	9.88	1498.47	1669.7	17981.6	20036.6	01/01/2018
2019	10.03	1521.22	1695.1	18255	20340.84	01/01/2019
2020	10.15	1539.42	1715.35	18473	20584.20	01/01/2020

	2017	2018	2019	2020
Minimum monthly amount of disability pension, sickness/maternity/paternity benefit	282.78 (9.30/day)	285.61 (9.39/day)	289.90 (9.53/day)	289.90 (9.53/day)
Maximum amount for sickness benefit	43.80	44.34	45.01	45.55
Maximum amount for sickness benefit for employees with at least 3 children and from the 31 st day of sickness	58.39	59.11	60.01	60.73
Maximum amount for maternity/paternity/adoption leave	84.90	86	87.71	89.03

The employee may also be entitled to additional compensation paid by the employer or to the maintenance of the salary, in particular because of collective agreements.

For the jobseekers, the daily allowance is calculated using the last 3 wages received, rather than the unemployment benefits.

Measures linked to **Covid-19** crisis: Workers who can't telework or who have to take care of their less than 16 years old children during the lockdown, can benefit from sickness benefit from 1 to 21 days (until 1st May), after they have to resort to partial unemployment.

- *Duration*

The health insurance fund has a waiting period of three days. That is, daily allowances are only paid from the fourth day of sick leave in the private sector, from the second day in the public sector. This waiting period applies to each period of inactivity, except for the case of a recognized long-term illness.

Except in recognized cases of long-term illness, the employee cannot receive more than 360 daily allowances over a period of three years. The maximum duration of payment is increased to three years for long-term illnesses or chronic diseases. Any resumption of work for a period greater than or equal to one year restarts a new maximum period of three years of compensation. Beyond three years, employees may be eligible for a disability pension.

- *EUROMOD notes*

Due to lack of information on sickness (number of days of sickness) and on previous contribution history, the sickness benefit is not simulated in Euromod but included in the micro-data.

2- *Maternity leave (bmact_s)*

- *Eligibility*

Maternity leave is not subject to any conditions regarding seniority in the company or in the nature of the contract. Being pregnant confers entitlement to maternity leave if the employee has been insured for 10 months on the presumed date of delivery. It must also satisfy the two conditions mentioned in sickness benefit for being out of work for less than 6 months (the date taken into account in the eligibility conditions is the beginning of pregnancy or prenatal leave)².

- *Duration*

The minimum duration of maternity leave is calculated in weeks. Maternity leave breaks down into a prenatal period and a postnatal period, before and after childbirth. The duration of prenatal leave and postnatal leave depends on the nature of the birth and the number of children.

- The duration of maternity leave for a first pregnancy or for the birth of a second child is the same. It is fixed at 16 weeks, 6 weeks before delivery and 10 weeks after delivery.
- From the third child, maternity leave is 26 weeks in total, 8 weeks before delivery and 18 weeks after childbirth.
- When the mother is expecting twins, the duration of maternity leave is 34 weeks, 12 weeks before delivery and 22 weeks after delivery. When the mother expects triplets or more, the duration is 46 weeks, 24 weeks before delivery and 22 weeks after delivery.

Legal durations may be extended in certain situations. In case of premature birth, the days of prenatal leave that could not be taken because of the early onset of the child extend the postnatal leave accordingly. In the case of illness related to pregnancy or childbirth, these periods may be increased by up to two weeks for prenatal leave and up to four weeks for leave. When the mother of the child dies while on maternity leave (during delivery, for example), the father's employment contract may be suspended for 10 weeks from the day of birth of the child.

- *Benefit amount*

The maternity leave remunerations follow the same rules as sick leave except for maximum amount (see table above, the calculation is $\frac{PSS*79\%}{30.42}$). The employee on maternity leave receives daily social security benefits. The collective agreement of the company may also provide for the full maintenance of the salary.

3- *Paternity leave (bpact_s)*

² The pregnant woman must inform her employer generally at the beginning of the second trimester of pregnancy, by transmitting a medical certificate and a letter specifying the presumed date of the delivery and the dates of beginning and end of the maternity leave. An employee cannot be dismissed during her maternity leave. However, a breach of contract is possible in the event of serious misconduct or if it is impossible to maintain it in the company for reasons unrelated to its maternity. But even in this case, the termination cannot be notified to her during her maternity leave.

- *Eligibility*

Paternity leave applies not only to employees but also to jobseekers, trainees in vocational training, non-salaried workers, whether agricultural or non-agricultural, as well as the liberal professions³.

- *Duration*

Fathers can take 11 consecutive days of paternity leave if they want (it's not an obligation for the father to take these days). These are calendar days, including days not worked, such as Saturdays, Sundays or holidays.

In case of birth of twins or triplets, the rules applicable to paternity leave are identical. But the duration of the paternity leave is increased to 18 days instead of 11.

Paternity leave must be taken within four months after the birth of the child. This is the date of departure from the paternity leave which is taken into account: the paternity leave can therefore end after this period of 4 months.

In order to benefit from paternity leave, if the father concerned is an employee, he must notify his employer at least one month in advance of his departure and return dates in the company. He can do it before the birth of the child. The employer cannot refuse a request for paternity leave unless the employee has not respected the notice period of one month. In addition to this, the employee must, after the birth of the child, send a complete copy of birth certificate or a copy of the current family record to his health insurance to benefit from the payment of daily allowances during his period of paternity leave. The employees' employment contract is suspended for the duration of the leave.

In addition to paternity leave, the father is entitled to a *birth holiday of three days*. A new father can therefore benefit from 14 consecutive days of absence if he accumulates both leaves (or 21 days for twins). However, you do not have to take your paternity leave following your 3-day birth holiday.

- *Amount*

As in the case of paternity leave, employees on paternity leave are therefore not paid by their employer but by social security. The conditions of payment of daily allowances by CPAM are the same as those for maternity leave.

4- *Adoption leave*

- *Eligibility*

An employee who adopts a child is entitled to a compensated adoption leave of varying duration depending on the situation (number of children adopted, number of children already dependent). It can be taken by one of the parents or be divided between the two employed parents.

Adoption leave is open to any employee who has been entrusted with a child:

- by the child welfare service (ASE),
- by the French Agency for Adoption (AFA),
- by a French agency authorized for adoption,

³ From the birth of the child, the salaried father benefits from a protection period of 10 weeks from birth, whether or not the father takes the paternity leave: he can only be dismissed for serious misconduct independent of birth or for economic reasons.

- by decision of the competent foreign authority, provided that the child has been authorized, as such, to enter France⁴.

- *Duration*

The legal duration of adoption leave varies according to the number of children adopted, the number of children already dependent in the household before adoption and the possible distribution of the leave between parents:

Number of adopted children	Number of already dependent children in the household	Duration leave	
		Only one parent takes the adoption leave	The two parents take the adoption leave
1	0 or 1	10 weeks	10 weeks + 11 days
1	2 or more	18 weeks	18 weeks + 11 days
2 or more	Whatever	22 weeks	22 weeks + 18 days

When the adoption leave is divided between the two parents, it can only be divided into two periods, the shortest of which is at least 11 days (or 18 days in the case of multiple adoptions). These 2 periods can follow or be taken simultaneously.

The leave begins on the date of arrival of the child in the home. However, it can start earlier, within the limit of 7 consecutive days preceding the arrival of the child at home. The employee must notify the employer by registered letter with acknowledgment of receipt (or delivery against receipt). He specifies in the letter the reason for his/her absence and the date on which he/she intends to terminate the suspension of his/her employment contract. The employer cannot refuse the benefit of the leave. Unless there is a contractual or collective agreement to the contrary, no time limit is imposed on the employee to warn the employer.

- *Amount*

During the adoption leave, any adoptive parent is entitled to the payment of daily rest allowances if he/she complies with the 3 previous conditions of the maternity leave (the date taken in account is the date of arrival of the child in the home).

- *Taxation and income testing*

Note that *bhcc_s* (supplement for free choice of activity) is not compatible with paid holidays, maternity/paternity/adoption leave, sick leave or unemployment benefit, hence this should be accounted for when modelling *bhcc_s*.

Taxable and included in the income test of other benefits, and subjected to CRDS and CSG.

- *EUROMOD notes*

This benefit is not simulated in Euromod due to lack of information about adoption in the data.

⁴ If you adopt a child in France, you must obtain a certificate linking the departmental adoption services indicating the beginning of the adaptation period or a certificate of placement. If you are adopting a child abroad, you must provide a photocopy of the child's passport or any other official document containing the visa issued by the Intercountry Adoption Mission (IAM).

2.5 Social contributions

Discrepancies exist in regimes of social security depending on the employment status of individuals and sometimes on the sector they work in.

There are 4 main social systems in France:

- The general regime for employees
- The regime for the self-employed (*travailleur non salarié*, TNS) run by independent groups (RAM)
- The agricultural system managed by *Mutuelle Sociale Agricole* (MSA)
- The local *Alsace-Moselle* plan
- Some more specific schemes (SNCF, EDF...)

The most important regime (“*régime général*”) covers employees against the financial consequences of different risks (illness, accident) or situations (family, old age, widowhood).

These systems are financed by contributions from both employees and employers (sometimes either one or the other) on wages and related income.

2.5.1 Employee social contributions (tscee_s)

Employee social contributions are mainly aimed at financing the Social Security system (*Sécurité Sociale*). Different types of contributions are paid by employees on their whole gross income:

- Employee contributions for health insurance and widowhood
- Employee contributions for old age
- Employee contributions for unemployment insurance

- *Liability to contributions*

All employees pay social contributions but there are some exemptions or rates reductions for certain contributions in order to help employment:

- For entrepreneurship when they invest in disadvantaged areas or were unemployed or were employed and create or take over a business.
- For hiring an employee with low-income or in a disadvantaged area, or for young innovative enterprises
- For the employment of young people or unemployed people who have particular employment contract like “*Contrat d’apprentissage*”, “*Contrat de professionnalisation*” or “*Contrat d’accompagnement dans l’emploi*”.
- For the employment of home help for the elderly or disabled, or child custody.
- Between 2007 and 2012, overtime pay is exempted from social insurance contributions. Since 2013, overtime pay is again subject to the standard social insurance contributions rates.

- *Income base used to contributions*

The tax base depends on the gross income and on the type of contribution. Some contributions are taxed on whole incomes, others are capped (i.e. only one part of the income is taxed). The ceiling depends on the monthly social security ceiling. Depending on the contribution concerned, the ceiling of social security is

increased by multiplying it by 1, 3, 4 or 8. The income considered in the base column of the next table, is the gross income on the payroll for all jobs, part-time or full-time, occasional or not.

The monthly ceilings are:

	2017	2018	2019	2020
Income group A	0 to 3269	0 to 3311	0 to 3377	0 to 3428
Income group B	3269 to 13076	3311 to 13244	3377 to 13507	3428 to 13712
Income group C	13076 to 26152	13244 to 26488	13508 to 27016	13712 to 27424
Income group 1	0 to 3269	0 to 3311	0 to 3377	0 to 3428
Income group 2	3269 to 9807	3311 to 9933	3377 to 10131	3428 to 10284

Read: group A: 0 to 3377, group B: 3377.01 to 13507.99, etc

- *Contribution rates*

The different rates depend on the employment status and on the regime. The different employee social contributions are summarised below.

	Base	2017	2018	2019-2020
Sickness	Whole income	0.75%	0%	0%
Old age	Income group A	6.90%	6.90%	6.90%
	Whole income	0.40%	0.40%	0.40%
Complementary pension for non-white collars	Income group 1	3.10%	3.10%	3.15%
	Income group 2	8.10%	8.10%	8.64%
Complementary pension for white collars	Income group A	3.10%	3.10%	3.15%
	Income group B	7.80%	7.80%	8.64%
	Income group C	7.80%	7.80%	8.64%
AGFF (Old age), CEG (general equilibrium contribution)	Income group 1/A	0.80%	0.80%	0.86%
	Income group 2/B	0.90%	0.90%	1.08%
Unemployment insurance	Income group A/B	2.40%	0.95%	0%
White collar (APEC)	Income group A+B	0.024%	0.024%	0.024%
Outstanding contribution (CET)	Income group A/B/C	0.13%	0.13%	0.14%

Since 2019, overtime pay is exempted from employee SIC contribution.

- *EUROMOD notes*

There is not enough information in the dataset to identify to which specific contribution regime an individual contributes to. As a result, only the “*regime general*” is simulated for all employees. The simulation of the contributions takes into account the number of months an individual has been working during the income reference period recorded in the data but does not take into account any variation in

earnings that may have occurred throughout the year. White collar workers have been approximated based on occupation (senior officials and managers and professionals). No exemption from contributions with the exception of overtime pay or entitlement to lower rates is simulated due to absence of information in the underlying micro-data. Complementary pensions for white-collar employees are simulated based on the assumption that the split of contributions between employer and employee on Income Group C is similar to the one pertaining to income Group B. In practice, a portion of this split is subject to firm level negotiations.

2.5.2 Employer social contributions (tscer_s)

Like employees, employers are liable for social contributions on medical insurance, pensions, unemployment insurance and additional contributions such as family contributions and housing.

Since 1st January 2016, employers have to provide a mutual company insurance (“*mutuelle d’entreprise*”) to their employee. The employer pays half of the contributions and the employee the other half. The aim is to provide all employee a minimal social coverage in addition to social security.

- *Liability to contributions*

The definitions are the same as those for employee social contributions mentioned in the previous section.

- *Income base used to calculate contributions*

The definitions of income groups are the same as those for employee social contributions mentioned in the previous section. Likewise, the income base refers to gross employment income.

- *Contribution rates*

	Base	2017	2018	2019	2020
Sickness*	whole income	12.89%	13.00%		
	Income>3803.04 (=2.5 SMIC)			13%	13%
	Income≤3803.04 (=2.5 SMIC)			7%	7%
Family benefits*	whole income	5.25% (3.45%*°)	5.25% (3.45%*°)	5.25% (3.45%°)	5.25% (3.45%°)
Housing					
FNAL firms with less than 20 employees*°	Income group A	0.10%	0.10%	0.10%	
FNAL firms with more than 20 employees*°	Whole income	0.50%	0.50%	0.50%	
FNAL firms with less than 50 employees*°	Income group A				0.10%
FNAL firms with more than 50 employees*°	Whole income				0.50%
Old age*	Income group A	8.55%	8.55%	8.55%	8.55%
	whole income*	1.90%	1.90%	1.90%	1.90%
CSA (autonomy solidarity)*°	whole income	0.30%	0.30%	0.30%	0.30%

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Complementary pension for non white collars (AGIRC-ARRCO)**	Income group 1	4.65%	4.65%	4.72%	4.72%
	Income group 2	12.15%	12.15%	12.95%	12.95%
Complementary pension for white collars (AGIRC-ARRCO)**	Income group A	4.65%	4.65%	4.72%	4.72%
	Income group B	12.75%	12.75%	12.95%	12.95%
	Income group C	12.75%	12.75%	12.95%	12.95%
AGFF (old age)(CEG)**	Income group A/1	1.20%	1.20%	1.29%	1.29%
	Income group 2/B	1.30%	1.30%	1.62%	1.62%
White collars contingency	Income group A	1.50%	1.50%	1.50%	1.50%
Unemployment insurance	Income group A+B	4%	4.05%	4.05%	4.05%
Wage guarantee fund	Income group A+B	0.20%	0.15%	0.15%	0.15%
APEC	Income group A+B	0.036%	0.036%	0.036%	0.036%
Outstanding contribution (CET) (white collars only)	Income group A/B/C	0.22%	0.22%	0.21%	0.21%
Professional training	Whole income				
-less than 10 employees		0.55%	0.55%	0.55%	0.55%
-10-19 employees		1.00%	1.00%	1%	1%
-more than 19 employees		1.00%	1.00%	1%	1%
Apprenticeship tax	Whole income	0.68%	0.68%	0.68%	0.68%
Participation in the construction effort (more than 20 employees)	Whole income	0.45%	0.45%	0.45%	0.45%
Contribution to professional and unions organizations	Whole income	0.016%	0.016%	0.016%	0.016%
Arduousness contribution	One factor of arduousness	0.20%	0%	0%	0%
	-for exposed employees only				
	Several factors	0.40%	0%	0%	0%
-for all employers		0.01%	0%	0%	0%

subject to “Réduction Fillon”, *° subject to “Réduction Fillon” since 2015, ** since 2019

- *Reductions in employers’ social security contributions (since 2020 “Réduction générale des cotisations patronales”, called “Réduction Fillon” before)*

Since 2003, a general reduction on employers contributions paid for low-income employees exists (“Réduction Fillon”). This reduction is decreasing and varies with the level of the employee’s income, the coefficient is maximum at the minimum wage (SMIC). It applies to all employees whose income is less than 1.6 SMIC whatever form or nature of the employment contract and working hours, the amount being maximum for employees paid at the minimum wage. It applies for each calendar year for each employee.

This reduction was amended in 2015. Since 2011, the reduction is calculated on the yearly income, before it was calculated on the monthly income (annual income includes bonuses such as the 13th month, before bonuses were not included). In 2012, overtime was included in the yearly income (excluded before). From 2015, there are, under certain conditions, no employer contributions for sickness, maternity, pension, invalidity and death for employees with low earnings.

The employer social contributions affected by the “*Réduction Fillon*” are sickness, family benefits, and old age. Since 1st of January 2015, housing (FNAL), solidarity autonomy (CSA), occupational diseases and work accident (the rate of this contribution changes according to the company) are also included. Since 2019, the tax credit for competitiveness and employment (“*Crédit d’impôt pour la compétitivité et l’emploi*”, CICE) was removed and replaced by a reduction in employers social contribution rates. So since January 2019, the complementary pension (AGIRC-ARRCO only up to 4.72 %) and AGFF-CEG (only up to 1.29%) contributions are also included (6.01 pts for 1 SMIC). Since October 2019, the unemployment contribution is included too (at the rate 4.05 %). In Euromod, the unemployment contribution will be added from 2020.

The reduction concerns private companies who paid unemployment insurance and must do salary negotiation each year (for companies with more than 50 employees where there are trade-union representatives). The reduction only concerns work contracts that do not qualify for other social security exemptions (generally, cumulating exemptions is not possible : cumul with standard deduction of employer contributions for overtime, exemption for employees of home help).

The reduction amount is the product of the yearly gross income by a coefficient who changes with the number of the company employees at December 31.

The reduction is calculated on an annual basis, but the application is made in advance. The reduction is applied each month on contributions paid (it is then based on the monthly SMIC and monthly remuneration) and regularized if necessary (eg if the monthly pay varies during the year, when there are bonuses). The regularization on contributions is made in December for monthly employers, in the 4th quarter for the quarterly employers, if the contract ends during the year, the regularization applies to the last month or quarter due.

The reduction is calculated per employee, and its amount can not be superior to contributions due.

Since 2020, the amount of the reduction calculated after application of the specific deduction for professional expenses (déduction forfaitaire spécifique) is capped by 130 % of the amount of the reduction calculated without application of the deduction.

The coefficients are:

- Companies with fewer than 20 employees (50 in 2020)

2017	2018	2019	2020
Income ≤1.6 SMIC			
$= (0.2809/0.6) * [(1.6 * (SMIC \text{ gross annual amount/gross annual income subject to social security contributions}) - 1)]$ with a cap of the coefficient to 0.2809	$= (0.2814/0.6) * [(1.6 * (SMIC \text{ gross annual amount/gross annual income subject to social security contributions}) - 1)]$ with a cap of the coefficient to 0.2814	$= (0.2809/0.6) * [(1.6 * (SMIC \text{ gross annual amount/gross annual income subject to social security contributions}) - 1)]$ with a cap of the coefficient to 0.2809	$= (0.3205/0.6) * [(1.6 * (SMIC \text{ gross annual amount/gross annual income subject to social security contributions}) - 1)]$ with a cap of the coefficient to 0.3205

For a full time job, the SMIC gross annual amount = 1820 * gross hourly SMIC, or the sum of 12 identical fractions corresponding to its value multiplied by the 52/12^e of the legal weekly working hours.

For a part time job, the SMIC gross annual amount is calculated *prorata temporis*, depending on the work duration : for 50 %, the gross hourly SMIC is multiplied by 1820/2.

The gross annual income taken into account includes all cash or in-kind compensation elements.

- Companies with 20 employees and more (50 for 2020)

2017	2018	2019	2020
Income ≤1.6 SMIC			
$= (0.2849/0.6) * [(1.6 * (\text{SMIC gross annual amount/gross annual income subject to social security contributions})) - 1]$ with a cap of the coefficient to 0.2849	$= (0.2854/0.6) * [(1.6 * (\text{SMIC gross annual amount/gross annual income subject to social security contributions})) - 1]$ with a cap of the coefficient to 0.2854	$= (0.2849/0.6) * [(1.6 * (\text{SMIC gross annual amount/gross annual income subject to social security contributions})) - 1]$ with a cap of the coefficient to 0.2849	$= (0.3245/0.6) * [(1.6 * (\text{SMIC gross annual amount/gross annual income subject to social security contributions})) - 1]$ with a cap of the coefficient to 0.3245

SMIC amounts since 2017

	Gross hourly SMIC	Gross monthly SMIC		Gross annual SMIC		Date
		for 151.67 hours of work*	for 169 hours of work	for 151.67 hours of work*	for 169 hours of work	
2017	9.76	1480.27	1649.4	17763.2	19793.3	01/01/2017
2018	9.88	1498.47	1669.7	17981.6	20036.6	01/01/2018
2019	10.03	1521.22	1695.1	18255	20340.84	01/01/2019
2020	10.15	1539.42	1715.35	18473	20584.20	01/01/2020

Source : ministry of labour, * legal working time

- *EUROMOD notes*

There is not enough information in the dataset to identify to which specific contribution regime an individual contributes. As a result, only the “*régime général*” is simulated for all employees. The simulation of the contributions takes into account the number of months an individual has been working during the income reference period recorded in the data but does not take into account any variation in earnings that may have occurred throughout the year. White collar workers have been approximated based on occupation (senior officials and managers and professionals). No exemption from contributions with the exception of or entitlement to lower rates is simulated due to absence of information in the underlying micro-data. Although companies need to fill in a declaration and apply for the reduction with the Organization for Social Security and Family Allowances (*Urssaf*), in EUROMOD the reduction in employer social contributions has been simulated for all employers.

The 130% cap for the “*réduction générale des cotisations patronales*” in 2020 is not simulated due to lack of data.

2.5.3 Self-employed social contributions (tscse_s)

• *Liability to contributions*

All self-employed in activity must pay the social contributions, but there are some exemptions or rates reductions for certain contributions in order to help employment:

- For entrepreneurship when they invest in disadvantaged areas or were unemployed or were employed and create or take over a business.
- For hiring an employee with low-income or in a disadvantaged areas, or for young innovative enterprises
- For the employment of young people or unemployed people who have particular employment contract like “*Contrat d’apprentissage*”, “*Contrat de professionnalisation*” or “*Contrat d’accompagnement dans l’emploi*”.
- For the employment of home help for the elderly or disabled, or child custody.
- For self-employer when they start their activity.

• *Income base used to calculate contributions*

The tax base depends on the gross self-employment activity income (i.e. gross profit) and on the type of contribution. Some contributions are taxed on whole income, others are capped (i.e. only one part of the income is taxed). The ceiling depends on the annual social security ceiling. Depending on the contribution concerned, the ceiling of social security is increased by a multiplicative factor.

PSS is the annual Social Security ceiling (“*plafond de la sécurité sociale*”):

	2017	2018	2019	2020
Annual PSS	39228	39732	40524	41136

• *Contribution rates*

For self-employment, the social contributions rates depending on the type of self-employment, they are different for “Artisan”, “Industry and traders” and “Farmers”.

Artisan	2017	2018	2019
Family benefits	5.25% if $r > 1.4 \text{ PSS}$ 2.15% if $r \leq 1.1 \text{ PSS}$ if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $2.15 + [(3.1/0.3\text{PSS}) * (r - 1.1\text{PSS})]$	3.1% if $r > 1.4 \text{ PSS}$ 0% if $r \leq 1.1 \text{ PSS}$ if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(3.1/0.3\text{PSS}) * (r - 1.1\text{PSS})]$	3.1% if $r > 1.4 \text{ PSS}$ 0% if $r \leq 1.1 \text{ PSS}$ if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(3.1/0.3\text{PSS}) * (r - 1.1\text{PSS})]$
Sickness	if $r > 0.7\text{PSS}$, rate = 6.5% if $r \leq 0.7\text{PSS}$, $3\% \leq \text{rate} < 6.5\%$ (rate= $6.5\% - [3.5\% * (1 - (r/0.7\text{PSS}))]$)	if $r > 1.1\text{PSS}$, rate = 6.35% if $r \leq 0.4\text{PSS}$, $0\% \leq \text{rate} < 3.16\%$ rate= $[(7.2\% - 2.2\%) / (1.1\text{PSS})] * r + [(2.2\% - 0.85\%) / (0.4\text{PSS})] * r + 0.85\%$	if $r \leq 0.4\text{PSS}$, $0\% \leq \text{rate} < 3.16\%$ rate= $[(7.2\% - 2.2\%) / (1.1\text{PSS})] * r + [(2.2\% - 0.85\%) / (0.4\text{PSS})] * r + 0.85\%$ if $0.4 \text{ PSS} < r \leq 1.1 \text{ PSS}$

		if $0.4 \text{ PSS} < r \leq 1.1 \text{ PSS}$	$3.16\% \leq \text{rate} < 6.35\%$
		$3.16\% \leq \text{rate} < 6.35\%$	$\text{rate} = [(7.2\% - 2.2\%) / (1.1\text{PSS})] * r + 2.2\%$
		$\text{rate} = [(7.2\% - 2.2\%) / 1.1\text{PSS}] * r + 2.2\%$	if $1.1\text{PSS} < r \leq 5 \text{ PSS}$ rate = 6.35%
			if $r > 5 \text{ PSS}$, rate = 6.50 %
Supplementary sickness	0.7% of $r < 5 * \text{PSS}$. minimum payment calculated on $0.4 * \text{PSS}$ (110€ in 2017)	0.85% of $r < 5 * \text{PSS}$. minimum payment calculated on $0.4 * \text{PSS}$ (135€ in 2018)	0.85% of $r < 5 * \text{PSS}$. minimum payment calculated on $0.4 * \text{PSS}$ (138€ in 2019)
Pension	17.75% of $r < \text{PSS}$ and 0.60% of $r > \text{PSS}$ (min contribution $11.5\% * \text{PSS} = 801 \text{ €}$ in 2017)	17.75% of $r < \text{PSS}$ and 0.60% of $r > \text{PSS}$ (min contribution calculated on $11.5\% * \text{PSS} = 811 \text{ €}$ in 2018)	17.75% of $r < \text{PSS}$ and 0.60% of $r > \text{PSS}$ (min contribution calculated on $11.5\% * \text{PSS} = 827 \text{ €}$ in 2019)
Complementary pension	7% of $r < 37\,546$ 8% of $37\,546 < r < 4 * \text{PSS}$	7% of $r < 37\,846$ 8% of $37\,846 < r < 4 * \text{PSS}$	7% of $r < 37\,960$ 8% of $37\,960 < r < 4 * \text{PSS}$
Professional training contribution	0.25% of PSS (contribution = 97€ in 2017)	0.29% of PSS	0.29% of PSS
Invalidity + death insurance	1.3% of $r < \text{PSS}$ (min contribution based on $11.5\% * \text{PSS}$ (59 € in 2017)	1.3% of $r < \text{PSS}$ (min contribution based on $11.5\% * \text{PSS}$ (59 € in 2018)	1.3% of $r < \text{PSS}$ (min contribution based on $11.5\% * \text{PSS}$ (61 € in 2019)

Note: r=gross self-employment income

Industry and trader	2017	2018	2019
Family benefits	5.25% if $r > 1.4$ PSS 2.15% if $r \leq 1.1$ PSS if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(5.25\% - 2.15\%)/(0.3*\text{PSS})]*(r - 1.1*\text{PSS}) + 2.15\%$	3.1% if $r > 1.4$ PSS 0% if $r \leq 1.1$ PSS if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(3.1/0.3\text{PSS})*(r - 1.1\text{PSS})]$	3.1% if $r > 1.4$ PSS 0% if $r \leq 1.1$ PSS if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(3.1/0.3\text{PSS})*(r - 1.1\text{PSS})]$
Sickness	if $r > 0.7\text{PSS}$, rate = 6.5% if $r \leq 0.7\text{PSS}$, $3\% \leq \text{rate} < 6.5\%$ (rate=6.5% - $[3.5\%*(1 - (r/0.7\text{PSS}))]$)	if $r > 1.1\text{PSS}$, rate = 6.35% if $r \leq 0.4\text{PSS}$, $0\% \leq \text{rate} < 3.16\%$ rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + [(2.2\% - 0.85\%)/(0.4\text{PSS})*r] + 0.85\%$ if $0.4 \text{ PSS} < r \leq 1.1 \text{ PSS}$ 3.16% $\leq \text{rate} < 6.35\%$ rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + 2.2\%$	if $r \leq 0.4\text{PSS}$, $0\% \leq \text{rate} < 3.16\%$ rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + [(2.2\% - 0.85\%)/(0.4\text{PSS})*r] + 0.85\%$ if $0.4 \text{ PSS} < r \leq 1.1 \text{ PSS}$ $3.16\% \leq \text{rate} < 6.35\%$ rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + 2.2\%$ if $1.1\text{PSS} < r \leq 5 \text{ PSS}$ rate = 6.35% if $r > 5 \text{ PSS}$, rate= 6.50 %
Supplementary sickness	0.7% of $r < 5*\text{PSS}$. minimum payment calculated on $0.4*\text{PSS}$ (110€ in 2017)	0.85% of $r < 5*\text{PSS}$. minimum payment calculated on $0.4*\text{PSS}$ (135€ in 2018)	0.85% of $r < 5*\text{PSS}$. minimum payment calculated on $0.4*\text{PSS}$ (138€ in 2019)
Pension	17.75% of $r < \text{PSS}$ and 0.60% of $r > \text{PSS}$ (min contribution calculated on $11.5\%*\text{PSS}=801$ € in 2017)	17.75% of $r < \text{PSS}$ and 0.60% of $r > \text{PSS}$ (min contribution calculated on $11.5\%*\text{PSS}=811$ € in 2018)	17.75% of $r < \text{PSS}$ and 0.60% of $r > \text{PSS}$ (min contribution calculated on $11.5\%*\text{PSS}=827$ € in 2019)
Complementary pension	7% of $r < 37\ 546$ 8% of $37\ 546 < r < 4*\text{PSS}$	7% of $r < 37\ 846$ 8% of $37\ 846 < r < 4*\text{PSS}$	7% of $r < 37\ 960$ 8% of $37\ 960 < r < 4*\text{PSS}$
Professional training contribution	0.25% of PSS	0.25% of PSS	0.25% of PSS
Invalidity + death insurance	1.3% of $r < \text{PSS}$ (min contribution based on $11.5\%*\text{PSS}$ (59 € in 2017)	1.3% of $r < \text{PSS}$ (min contribution based on $11.5\%*\text{PSS}$ (59 € in 2018)	1.3% of $r < \text{PSS}$ (min contribution based on $11.5\%*\text{PSS}$ (61 € in 2019)

Note: r=gross self-employment

Farmers	2017	2018	2019
Family benefits	if $r \leq 1.1PSS$: 2.15% if $r > 1.4PSS$: 5.25% if r between 1.1 et 1.4 PSS: $2.15\% \leq \text{rate} \leq 5.25\%$ rate= [[$(5.25\% - 2.15\%) / (0.3PSS)$]* $(r - 1.1PSS)$]+2.15%	if $r \leq 1.1PSS$: 0% if $r > 1.4PSS$: 3.1% if r between 1.1 et 1.4 PSS: $2.15\% \leq \text{rate} \leq 3.1\%$ Rate=[[$(3.1\% - 2.15\%) / (0.3PSS)$] * $(r - 1.1PSS)$]+2.15%	if $r \leq 1.1PSS$: 0% if $r > 1.4PSS$: 3.1% if r between 1.1 et 1.4 PSS: $0\% \leq \text{rate} \leq 3.1\%$ Rate=[[$(3.1\% - 0\%) / (0.3PSS)$] * $(r - 1.1PSS)$]
Invalidity	0.8% (min 11.5% PSS)	0.8% (min 11.5% PSS)	0.8% (min 11.5% PSS)
IJ Amexa and invalidity pension	225 euros	IJ Amexa = 180 euros and invalidity pension=25 euros	IJ Amexa = 180 euros and invalidity pension=25 euros If $r \geq 1.1PSS$: 6.50%
Sickness	3.04%	3.04%	If $r < 1.1PSS$: $1.5\% \leq \text{rate} \leq 6.5\%$ rate= [$(6.5\% - 1.5\%)$ / $1.1PSS$]* $r + 1.5\%$
Pension	14.77% of $r < PSS$ 2.04% of $r > PSS$	14.87% of $r < PSS$ 2.24% of $r > PSS$	14.87% of $r < PSS$ 2.24% of $r > PSS$
Complementary pension	3%	4%	4%

Note: r=gross self-employment income

2020	Artisan	Industry and trader	Farmers
Family benefits	3.1% if $r > 1.4$ PSS 0% if $r \leq 1.1$ PSS if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(3.1/0.3\text{PSS})*(r-1.1\text{PSS})]$	3.1% if $r > 1.4$ PSS 0% if $r \leq 1.1$ PSS if $1.1 \text{ PSS} < r \leq 1.4 \text{ PSS}$ Rate= $[(3.1/0.3\text{PSS})*(r-1.1\text{PSS})]$	if $r \leq 1.1\text{PSS}$: 0% if $r > 1.4\text{PSS}$: 3.1% if r between 1.1 et 1.4 PSS: 0% \leq rate \leq 3.1% Rate= $[(3.1\%)/(0.3\text{PSS})]$ * $(r-1.1\text{PSS})$
Sickness	if $r \leq 0.4\text{PSS}$, 0% \leq rate $<$ 3.16% rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + [(2.2\% - 0.85\%)/(0.4\text{PSS})*r] + 0.85\%$ if $0.4 \text{ PSS} < r \leq 1.1 \text{ PSS}$ 3.16% \leq rate $<$ 6.35% rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + 2.2\%$ if $1.1\text{PSS} < r \leq 5 \text{ PSS}$ rate = 6.35% if $r > 5 \text{ PSS}$, rate= 6.50 %	if $r \leq 0.4\text{PSS}$, 0% \leq rate $<$ 3.16% rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + [(2.2\% - 0.85\%)/(0.4\text{PSS})*r] + 0.85\%$ if $0.4 \text{ PSS} < r \leq 1.1 \text{ PSS}$ 3.16% \leq rate $<$ 6.35% rate= $[(7.2\% - 2.2\%)/(1.1\text{PSS})*r + 2.2\%$ if $1.1\text{PSS} < r \leq 5 \text{ PSS}$ rate = 6.35% if $r > 5 \text{ PSS}$, rate= 6.50 %	If $r \geq 1.1\text{PSS}$: 6.50% If $r < 1.1\text{PSS}$: 1.5% \leq rate \leq 6.5% rate= $[(6.5\% - 1.5\%)/1.1\text{PSS}]*r + 1.5\%$
Supplementary sickness	0.85% of $r < 5*$ PSS. minimum payment calculated on 0.4*PSS (140€ in 2020)	0.85% of $r < 5*$ PSS. minimum payment calculated on 0.4*PSS (140€ in 2020)	
Pension	17.75% of $r <$ PSS and 0.60% of $r >$ PSS (min contribution calculated on $11.5\%*PSS=840$ € in 2020)	17.75% of $r <$ PSS and 0.60% of $r >$ PSS (min contribution calculated on $11.5\%*PSS=840$ € in 2020)	14.87% of $r <$ PSS 2.24% of $r >$ PSS
Complementary pension	7% of $r < 38\ 340$ 8% of $38\ 340 < r < 4*PSS$	7% of $r < 38\ 340$ 8% of $38\ 340 < r < 4*PSS$	4%
Professional training contribution	0.29% of PSS	0.25% of PSS	
Invalidity + death insurance	1.3% of $r <$ PSS (min contribution based on $11.5\%*PSS$ (62 € in 2020)	1.3% of $r <$ PSS (min contribution based on $11.5\%*PSS$ (62 € in 2020)	0.8% (min $11.5\% \text{ PSS}=38\text{€}$) + IJ Amexa = 180 euros and invalidity pension=25 euros

Note: r =gross self-employment income

The rates for professionals are not reported here because there are many professional categories, not subjected to the same system. We can assume that it is the same system as Industry and Trader (the only difference is the pension and complementary pension, which is a lump-sum depending on the professional class).

- *EUROMOD notes*

The three types of self-employment have been approximated based on industry (Agriculture vs. non agriculture) and occupation (non-agricultural craft and trade workers are assumed to be artisans; the rest are assumed to be contribute to the industry & trade regime). Contributions are simulated based on the current yearly self-employment income.

2.5.4 General Social contribution – tsexcs-s – (“*Contribution Sociale Généralisée*”, CSG)

CSG applies to:

- Employment income
- Self-employment income
- Pension Income
- Unemployment Benefit (ARE)
- Capital income
- Sickness Benefit (only the daily allowances but not the reimbursement for medical procedures)

The tax base is gross income after a reduction of 1.75% (3% before 2012) for professional expenses (on employment income and unemployment benefit but not on capital income and sickness benefits), (98.25% on gross income until four times the annual PSS, 100% above or for pension).

Benefits like ASPA or RSA and, more generally, minimum incomes (AAH and AV), all the family benefits and housing benefits are excluded from the tax base.

The tax rate depends on the income category as follow:

	2017			2018			2019-2020			
	CSG	Reduced rate	Deductible CSG	CSG	Reduced rate	Deductible CSG	CSG	Reduced rate	Median rate	Deductible CSG
Employment income	7.5 %		5.1 %	9.2 %		6.8 %	9.2 %			6.8 %
Pension Income	6.6 %	3.8 %	4.2 %	8.3%*	3.8 %	5.9 %	8.3%	3.8 %	6.6%	5.9 % or 4.2%
Unemployment benefit	6.2 %	3.8 %	3.8 %	6.2 %	3.8 %	3.8 %	6.2 %	3.8 %		3.8 %
Sickness benefit	6.2 %	3.8 %	3.8 %	6.2 %	3.8 %	3.8 %	6.2 %	3.8 %		3.8 %
Capital Income	8.2 %		5.1 %	9.9 %		6.8 %	9.2 %			6.8 %

* For pension income, the rate of 8.3% was introduced for all pensioners in 2018 (except for those who depend on the 3.8 % rate). In 2019, the government abolished the increase in this rate but only for pensioners earning less than 2000€ per month. These pensioners pay a rate of 6.6 % from January 2019. Moreover, since 2013, an additional contribution for solidarity and autonomy (CASA) has been applied to pension income (0,3%). This contribution applies to pensioners subject to CSG rate 6,6% and more.

A fraction of the CSG can be removed from the tax base before income tax.

Pensioners with low incomes are exempted from CSG and CRDS. The income threshold depends on the tax unit (“*Quotient Familial*”). The income here is the household net taxable income in n-2:

CSG Rate: 0%

Annual Tax Base	2017	2018	2019	2020
1 share	10996	11018	11128	11306
Each 0.5 share	2936	2942	2971	3019

If pensioners exceed the ceiling above but income tax is less than 61 Euros the CSG rate is decreased to 3.8% and totally deductible from income for the tax calculation. Otherwise the CSG is paid at a rate of 8.3% or 6.6 %. If a pensioner has several types of income, only the pension incomes are exempted from CSG but the income threshold takes into account all his types of income. The reference income (RFR) is the n-2 income.

Since 2015, ceilings have changed, a ceiling threshold was introduced for pensioners. Now, the income tax amount is no longer considered for application of reduced rate of 3.8 %. The reference income (RFF “Revenu fiscal de référence”) is the only thing taken in account. If pensioners' income (RFF) in n-2 exceeds the RFF lower threshold below but are under the ceiling below, the rate is decreased to 3.8% and totally deductible from income for the tax calculation.

CSG reduced rate: 3.80%

RFF	2017		2018		2019		2020	
	lower threshold	ceiling threshold	lower threshold	ceiling threshold	lower threshold	ceiling threshold	lower threshold	ceiling threshold
1 share	10996	14375	11018	14404	11129	14548	11307	14781
Each 0.5 share	2936	3838	2942	3846	2971	3884	3019	3946

In 2019, new ceilings have been introduced for modest pensioners with a median rate of CSG of 6.6 %, see ceilings below.

CSG median rate: 6.60%

RFF	2019		2020	
	lower threshold	ceiling threshold	lower threshold	ceiling threshold
1 share	14549	22580	14782	22941
Each 0.5 share	3884	6028	3947	6124

Above to this ceiling threshold, pensions are subjected to full CSG rate of 8.30%

- *EUROMOD notes*

CSG is simulated on current yearly incomes. The full exception from CSG for pensioners with low incomes is simulated.

2.5.5 Social security debt repayment contribution – tscdf_s – (CRDS)

Like CSG, CRDS is levied on different income categories:

- Employment income
- Self-Employment income
- Pension income
- RSA
- Unemployment income

- Family benefits (AF, ARS, CF, PAJE)
- Capital income
- Housing benefits
- Sickness Benefits (only the daily allowances but not the reimbursement for medical procedures)

Unlike CSG, Family benefits are subjected to CRDS. The rate applied is the same for all these income categories and amounts to 0.5%. CRDS applies globally on the same basis as CSG, paid on gross income after a reduction of 1.75% (3% until 2011), except for capital income, pensions and sickness benefits (98.25% on gross income until four times the annual PSS, 100% above).

The CRDS is not deductible for tax purposes.

- *EUROMOD notes*

CRDS is simulated using observed incomes (where they are not simulated in the model) and simulated benefits. The simulation is done using current yearly incomes.

2.5.6 Social contribution on capital income (tsckt_s)

Other additional social contributions apply on capital (investment & property) incomes as follows:

	2017	2018	2019-2020
Social contribution	4.50%	4.50%	-----
Additional contribution	0.30%	0.30%	-----
Solidarity contribution	2.00%	2.00%	-----
Solidarity levy	-----	-----	7.5%
Total	6.80%	6.80%	7.5%
(Total with CSG and CRDS	15.5%	17.2%	17.2%)

These contributions are not deductible for tax purposes.

- *EUROMOD notes*

These contributions are simulated using observed investment and property income. Current yearly income is used.

2.6 Personal income tax

2.6.1 Tax unit

Personal income tax (IRPP):

The tax unit for income taxation is neither individual nor based on the household. It is known as “*Foyer fiscal*” which is a sub-group of the household. It consists of one taxpayer plus the persons who fiscally depend on him.

Spouses (if they are married or have signed a contract of civil partnership (PACS)) and all dependent children / persons are grouped in the same unit.

Dependent children are:

- Children under 18 (automatically)
- Children strictly under 21 (and they agree to be declared with their parents)
- Children strictly under 25 who are students (and they agree to be declared with their parents)
- Disabled Children (automatically whatever their age).

Other adults can be dependent if they are disabled.

2.6.2 Exemptions

All the Family benefits, social minima (RSA) and social assistance benefits (AAH) are exempted from taxation.

The only taxable allowance is the survivor’s pension (AV) which has to be considered a pension.

As mentioned in the social contribution part, a share of the CSG can be deducted from income before taxation.

Not all the sickness benefits are taxable. These benefits are composed of cash benefits for the maintenance of an earned income called daily allowances (in case of sick leave, injury on duty leave or maternity leave) and of the reimbursement of medical, surgical or maternity procedures. Only the daily allowances are taxable except in the case of workplace accidents and benefits paid to people with a disease with prolonged treatment and a particularly costly therapy. This amount is added to the earned income.

Between 2007 and 2012, overtime payments are not subject to tax or to employee/employer contributions. Overtime is paid at a standard rate in France (25% extra for the first 8 hours after 35 hours and 50% extra for the next hours of overtime). Since 1 January 2013, overtime payments are subject to standard income tax and to employee/employer contributions. Since 2019, overtime payments are not subjected to income tax up to 5000 EUR (the excess is taxed normally). With regard to employee social contributions, the reduction rate on contributions is at most 11.31% (it represents the sum of old-age insurance contributions but only for overtime worked).

In 2009, there was an income tax holiday for low earners in France. Those whose incomes did not exceed the first tax band per households unit (i.e. EUR 11.893 in 2012) were given relief on two thirds of their income tax bill (“*les deux derniers tiers provisionnels*”).

2.6.3 Tax allowance

- There are deductions (“*abattement*”) for certain categories of income such as category C1 (earned income, pension and unemployment). The deduction amounts to 10% with ceilings (for each earner/ pensioner/ UB recipient):

Yearly amounts	Income 2016	Income 2017	Income 2019*	Income 2020*
Min and Max	Taxation 2017	Taxation 2018	Taxation 2019*	Taxation 2020*
Earned income	426 12183	430 12305	437 12502	441 12627

Unemployment benefit	938 12183	947 12308	0 0	0 0
Pension**	379 3715	383 3752	389 3812	393 3850

** for pension, the minimum is for one person and the maximum is for all the people in the same tax declaration.

* In 2019, introduction of a withholding income tax, 2018 income will not be taxed in 2019 (except for extraordinary income from 2018 that will be taxed in 2019 and 2020).

In category C3 (capital income), property income (rent) can also be deducted by 30% if the annual property income < EUR15.000 annually. The income limit has not changed between 2006 and 2019. There are more complicated deductions for property income > EUR 15.000 annually (not simulated).

- There is a deduction for private retirement savings (“*épargne retraite*”) per person which is equal to 10% of earned income from the previous years (less the deduction for professional expenses) within the following limits:

	Income 2016 Taxation 2017	Income 2017 Taxation 2018	Income 2019 Taxation 2019	Income 2020 Taxation 2020
Maximum	30893	31382	31789	32419
Minimum	3862	3923	3973	4052

2.6.4 Tax base

To calculate the tax base called Net taxable income (“*Revenu net imposable*”), intermediate incomes have to be calculated.

- « *Revenu Brut global* »

The tax base differs according to the income category.

The existing classes are:

- Earned income, pensions (with the exception of ASPA, AAH) and unemployment benefit (C1)
- Self-employment (C2)
- Capital income (C3)

For each class, the non-deductible CSG is added to gross income minus the social insurance contributions (as mentioned in the previous section on social contribution).

The « *Revenu Brut global* » is equal to the sum of all the income classes for all the persons of the tax unit:

SUM (

C1-deduction

+ C2

+ C3

+ Non deductible CSG and CRDS (on C1. C2 et C3))

- « *Revenu Net global RNG* »

From the « *Revenu Brut global* », we obtain the “*Revenu Net global*” by removing certain charges (such as alimony, investments in particular sectors, hospitality expenditures for people over 75, etc.)

Revenu Net global = *Revenu Brut Global* - Particular charges (these cannot be simulated)

For alimony paid for minor children or ascendants, the deductible amount is not limited and totally deductible.

For alimony paid for each adult child (who is declared with their parent and has a separate home), the amount of the deduction is capped.

The deductible amount is capped at:

Income	2016	2017		
Taxation	2017	2018	2019	2020
Complementary reduction	5738	5795	5888	5947

A fixed amount can be deducted as a payment in kind for ascendants or major children living in the household (tax unit):

Income	2016	2017		
Taxation	2017	2018	2019	2020
	3411	3445	3500	3535

For each person 65 and over or disabled in the tax unit, an amount can be deducted which depends on “*Revenu Net Global*” (RNG) being below some thresholds as follow:

2017		2018		2019	
Deduction	RGN	Deduction	RGN	Deduction	RGN
2352	<14750	2376	<14900	2416	<15140
1176	14751 < r < 23760	1188	14900 < r < 24000	1208	15140 < r < 24390
2020					
Deduction	RGN				
2442	<15300				
1221	15301 < r < 24640				

- *Net taxable Income* (“*Revenu net imposable*”)

Net taxable income = “*Revenu Net global*” – special deductions (disabled people...)

- *Family ratio:*

To take into account the family size, the taxation system gives a weight to each member of the family, and adds them together to compute the Family Ratio (“*Quotient Familial*” QF).

Person in the tax unit	Weight
Taxpayer	1
Partner (if married)	1
First child	0.5
Second child	0.5
Each child after the second	1

Supplementary weights can be added in specific cases:

- Widow/er with at least one dependent child : +1 (from 2008 onwards)
- Each Disabled adult / Child: +0.5
- Lone parent : +0.5 (if not a widow/er)

QF is the total weight obtained for each tax unit.

- *Tax Base*

The amount which is submitted to the tax schedule is the net taxable income divided by the QF.

Tax Base = Net Taxable Income / QF.

- *Capital Income:*

The capital income are taxed depending on their type.

2014-2017: The “*prélèvement forfaitaire non libératoire*” is applied, it’s a levy that a taxpayer pay in advance as a deposit (year n), the rate does not depend on the taxpayer’s total income at the first time, it is determined by type of investment. At the second time (year n+1), the taxplayer declare all his income and that determines the overall tax rate on the capital income, they are subject to the progressive tax on income. If the amount paid in advance is too high, it will be refunded by the tax authorities, if it is too low, the taxpayer’s have to pay the difference between its deposit and the actual amount of tax.

Since 2014, taxpayer with low-income may ask to be exempted from the levy if their RFF income in n-1 being less than a threshold (75000€ for a couple and 50000€ for a single person).

In this case, the capital income are subjected to a 40% deduction applies on the gross amount of dividend income (in 2018, this deduction is made only if the progressive taxation is chosen). Interest income from dividends is treated the same way but the income limits are 25000€ for a single and 50000€ for a couple.

Since 2018, a unique flat tax is introduced at the level of 30 % (12.8 % for unique flat rate and 17.2 % for social contributions). No more progressive tax unless the taxpayer chose it if it’s more advantageous for him.

	2017		2018-2020	
	Flat rate	Social contributions	Flat rate	Social contributions
All capital income				
Fixed rate investment income	24%	15.5 %	12.8 %	17.2 %
Dividends	21 % and Normal taxation	15.5 %	12.8 %	17.2 %
Interest of dividends	21 % and Normal taxation	15.5%	12.8 %	17.2 %

Social contributions must be added to the flat rate paid at the source

2.6.5 Tax schedule

The tax schedule is progressive, as shown in the table below. Income brackets apply to annual income.

Taxation 2017 income 2016		Taxation 2018 income 2017		Taxation 2019 income 2019		Taxation 2020 income 2020	
Income bracket	Marginal Tax Rate	Income bracket	Marginal Tax Rate	Income bracket	Marginal Tax Rate	Income bracket	Marginal Tax Rate
0 to 9710	0%	0 to 9807	0%	0 to 9964	0%	0 to 10064	0%
9711 to 26818	14%	9808 to 27086	14%	9965 to 27519	14%	10065 to 25659	11%
26819 to 71898	30%	27087 to 72617	30%	27520 to 73779	30%	25660 to 73369	30%
71889 to 152260	41%	72618 to 153783	41%	73780 to 156244	41%	73370 to 157806	41%
>152260	45%	>153784	45%	>156245	45%	>157807	45%

The tax amount obtained is then multiplied by QF to give the total tax for the tax unit.

Limit on Tax reduction due to Family Ratio (“Plafonnement du quotient familial”):

There are corrections to make on the “gross tax” above. The aim is to limit the benefits of dependent children’s weight (or dependent adults).

Tax cuts for these additional weights are capped at:

	2017	2018	2019	2020
The two first 0.5 for lone parent	3566	3602	3660	3697
Each 0.5 after the second for lone parent	1512	1527	1551	1567
Each 0.5	1512	1527	1551	1567

To compute the final gross tax liability, we must recalculate the tax with a new QF:

- 1 for single
- 2 for couples (married or who have signed a PACS)

and subtracting the caps from the table above:

Imax= “new tax” calculated - ceiling

The tax to pay is therefore the maximum between the “normal” tax liability and “Imax”.

Complementary reduction (“réduction complémentaire”):

If the tax to pay was corrected because of Limit on Tax reduction due to Family Ratio, the income tax is reduced for disabled people. The amount of tax is reduced by the following amounts for each disabled person:

Complementary Reduction	Income 2016	Income 2017	2019	2020
Yearly amounts	Taxation 2017	Taxation 2018		
Disabled	1508	1523	1547	1562
Widower with dependent child	1684	1701	1728	1745

Tax rebate (“Décote”):

A (non-refundable) tax rebate is given to any tax unit whose gross tax liability is under:

	Income 2016	Income 2017	2019	2020
Tax rebate	Taxation 2017	Taxation 2018		
Single	1553	1569	1611	1717
Couple	2560	2585	2653	2842

The amounts used for the calculation of the rebate are:

	Income 2016	Income 2017	2019	2020
Tax rebate	Taxation 2017	Taxation 2018		
Single	1165	1177	1208	777
Couple	1920	1939	1990	1286

The rebate is computed as the difference between the amounts in the previous table minus:

- From 2017 to 2019. $\frac{3}{4}$ of the gross tax liability previously calculated.
- In 2020, 45.25% of the gross tax liability previously calculated.

2.6.6 Tax credits

The final tax payable is the gross tax minus:

- Tax reductions
- Tax credits
- Employment Bonus (Prime pour l’emploi, PPE)

Tax reductions:

Reductions are allowed for charitable spending, school fees for dependent children, specific investments.

There is also a reduction for families who have children at school. This deduction has not changed between 2009 and 2020:

- 61 EUR/year per child in junior high school (11-14)
- 153 EUR/year per child in upper high school (15-18)
- 183 EUR/year per child in third level education

Supplementary tax reduction from 2017 to 2019: an additional flat-rate reduction on income tax for low income earners is applied after the tax rebate.

2017

For RFR less than 18 500 EUR (single) or 37 000 EUR (couple), there is a flat-rate reduction of 20% in the theoretical amount of the income tax granted to households whose RFR is less than 18 500 EUR for a single and 37 000 EUR for a couple, increased by 3700 EUR for each additional half-share.

For RFR above 18 500 EUR (single) or 37 000 EUR (couple), a phase-out is applied to limit the threshold effects and give a degressive reduction. Starting from 18501 EUR of RFR (for a single person) or 37001 EUR (for a couple), plus a possible half-share (3700 per half-share), the percentage of reduction applied is calculated as follows:

- R1 is equal to 20 500 EUR for a single and 41 000 EUR for a couple, plus any eventual half-share
- R2 is the household RFR
- $N = R1 - R2$
- D is equal to 2000 EUR for a single and 4000 EUR for a couple

The reduction rate of the income tax is : $20\% * (N/D)$

2018

The supplementary tax reduction is extended **in 2018**, the RFR are respectively **18685 EUR, 37370 EUR and 3737 EUR**. Concerning R1, the amounts are **20705 EUR, 41410 EUR and 3737 EUR**

2019

The supplementary tax reduction is extended **in 2019**, the RFR are respectively **19175 EUR, 38350 EUR and 3835 EUR**. Concerning R1, the amounts are **21248 EUR, 42496 EUR and 3835 EUR**

2020

The new calculation method of the tax rebate “*décote*” take into account the tax rebate and the supplementary 20% tax reduction for low income. So this tax reduction is therefore deleted in its previous form.

Tax credits:

The main tax credits are:

- Tax credits allowed for green investments (purchase of a clean vehicle, solar panels, etc.).
- Tax credit for interest paid on the loan for the acquisition of housing. Since May 2007 to December 2010, people who bought their principal residence can deduct approximately 40% of the interest on their mortgage for 5 years (suppressed for new loan since January 2011, no more tax credit since 2017).
- Tax credit for childcare fees. Households employing people for the custody of their child can deduct 50% of the amount paid up to a ceiling of EUR 2300 per child per year.
- Tax credit for home service employment (tutoring, homemaker...)
- Tax credit for energy transition, « *crédit d'impôt transition énergétique* » (CITE). The tax credit covers the work to improve the energy efficiency done in the main house. The tax benefit is 30% of

expenses incurred, capped at 8000 euros (16000 for a couple, plus 400 euros per dependent) over a period of five years. In 2018 and 2019, the rates are 15 % or 30 % depending on the restoration work and only available until 30 June. This tax credit has been replaced in January 2020 by “Ma Prime rénov” for the modest household. This new tax credit is more intended for modest and very modest households for 2020 and will be extended to all household in 2021 (except wealthier households). The amount depend on the energy efficiency and the household income in order to highlight the most efficient work. The tax credit amount depend on the region and the household composition, the CICE is capped at 2400€ for a single and 4800 for a couple with 120€ for each dependent person, the CICE can't be superior to 75% of the bill. In 2020, for more intermediary households or more wealthier household, the CICE became lump sum (intermediary households: 40€ for window replacement, 15€/m² for insulation and 2000€ for installation of a heat pump; for wealthier households: 10€/ m² for inside insulation and 25€/m² for exterior insulation)

- Tax credit for competitiveness and employment, « *crédit d'impôt pour la compétitivité et l'emploi, CICE* » was introduced from 2013 to 2019. In 2019, it was removed and replaced by a reduction on certain employers' social contributions. The objective was to reduce the cost of work of French companies compared to foreign companies. This tax credit only concerns the workers whose wage is below 2.5 SMIC. The rate of the tax credit has changed over the years (4% of the wage bill of the concerned workers in 2013, 6 % in 2014, 2015 and 2016, 7 % in 2017 and 6 % in 2018). Although companies need to fill in a declaration and apply for the reduction with the Organization for Social Security and Family Allowances (*Urssaf*), in EUROMOD the reduction in employer social contributions has been simulated for all employers.
- Tax reduction for some rental property investments, subject to fulfilling the conditions linked to the tenant and rent, several devices have existed through time: Robien, Duflot, Pinel etc. This reduction depend on the device, conditions and rates reduction have changed between these devices, the time during which the tax reduction is applied is changing also according to the different devices.
- PPE until 2015

The PPE, an individual tax credit to encourage the return to employment, was abolished at 31 December 2015 and was integrated in the Activity Allowance (RSA) from 1st January 2016.

Exceptional contribution on high income (“*Contribution exceptionnelle sur les hauts revenus*”):

In 2013 this new contribution on high incomes was introduced. It is an annual tax based on the same incomes as the personal income tax, the “*revenu fiscal de référence, RFR*” (RFR is calculated as RNI plus taxable capital income). It concern people whose incomes are higher than EUR 250 000 for singles and EUR 500 000 for couples.

The fraction of income above the set threshold is taxed as follows:

The tax rates are:	Single	Couple
RFR ≤ 250 000	0%	0%
250 000 < RFR ≤ 500 000	3%	0%
500 000 < RFR ≤ 1 000 000	4%	3%
RFR > 1 000 000	4%	4%

When it concerns exceptional income (sale of property, etc.), a smoothing mechanism of the annual RFR is established under two conditions:

1. The RFR of the taxation year must be greater (or equal) than one and a half times the average of the previous two years RFR.

2. The RFR of the previous two years must be less (or equal) than the release threshold for the exceptional tax on high incomes.

The tax is then calculated similarly to the “*quotient familial, QF*” system:

$$\text{Tax base} = M + [(RFR_n - M)/2]$$

With

M: $(RFR_{n-2} + RFR_{n-1})/2$, the average of the last two years RFR

RFR_n: RFR of the taxation year

Then, the rate of 3% and 4 % are applied on this tax base. The tax amount is twice this result.

Cap on Direct Taxes (“*Bouclier Fiscal*”):

This "tax shield" is a device to cap direct taxes. Since 2007, direct taxes paid by a taxpayer may not exceed 50 % of its revenues. The tax is reduced sequentially on the ISF (wealth tax), *the taxes d'habitation & foncière* (housing taxes) and CSG.

The 50% relates to:

- Income tax
- ISF
- Housing Tax
- Land tax payable for principal residence
- Employee contributions including CSG and CRDS

This tax cap was abolished in July 2011.

- *EUROMOD notes*

All children under 21 and all students under 25 co-residing with their parents are assumed to be declared on their parents' tax return. No account can be taken of children under 21 /students under 25 who are not co-residing with their parents, as they are not observed in the data. All alimonies paid are assumed to be paid for underage children and thus, they are considered to be fully deductible from the tax base. All children aged 18 and above and dependent adults are assumed to entitle the taxpayer to the specific allowance that may be claimed on their behalf. Disability is based on observed status in the data (pl031=8). In the case of capital income, an optimization is simulated. Both flat rate taxation and inclusion into total income subject to progressive taxation are simulated and the option which yields the lower tax liability is chosen. No information exists on the source of investment income. Consequently, the tax deduction for dividends when not applying the PNFL regime is simulated for all types of investment income.

The following tax credits have been simulated-tax credit for child care fees, tax credit for mortgage interest expenditure, tax credit for children of school age and the refundable employment credit (PPE until 2015). Since 2016, the activity allowance replace the PPE. Tax credits for child care expenses are simulated for all families where both parents are in work and there is a child younger than 6. The maximum yearly deduction is simulated in all cases. The tax credit on mortgage interest expenditure is approximated based on the age of the head. Households paying mortgage interests with a head under 45 are assumed to be eligible for this credit. More accurate simulations actually replicating existing rules are simulated but can be run only with national SILC data.

The employment bonus (PPE) was simulated based on current rather than previous year's income. If an individual has both employment and self-employment income, the conversion factor was calculated by summing the partial income source specific factors. In calculating the conversion coefficient, account was taken only on the number of months worked and not on the number of hours. Persons who were married but whose partner was missing from the data were considered to be part of a two earner couple.

The smoothening mechanism of the exceptional contribution on high incomes is not simulated due to absence of information on the RFF income in the previous years.

The cap on direct taxes is not simulated.

2.7 Wage compensation scheme in response to Covid-19 (bwkmcee_s)

In the context of the **Covid-19** health crisis, access to partial unemployment was facilitated in order to avoid massive dismissal.

During the lockdown (from March 17 to May 10, 2020), the following measures were implemented:

- In case of chronic illness or for childcare reasons (children under 16 years old, when their school is closed), workers can apply for sickness benefit (without the usual waiting period) until 1st of May. Afterwards, to avoid the decrease in the benefit taking place from the 31st day (from 90% to 66% of the net wage), they go into partial unemployment (84% of the net wage for wages >SMIC and 100% for those up to SMIC). From 1st of June, parents who want to continue taking care of their children at home while schools are reopened are no longer eligible for partial unemployment.
- For those who cannot telework or whose activity has decreased or stopped, they can be assigned to partial unemployment (including the option of working zero hours).

Cost and number of beneficiaries from March to July:

	Partial unemployment		Sickness benefit linked to lack of activity or childcare due to covid-19 (costs of the illness itself not included)	
	Beneficiaries	Cost (EUR)	Beneficiaries	Cost (EUR)
March	7,2 million of employees (856 000 firms)	3,3 billion		
April	8,8 million of employees (958 000 firms)	8,9 billion	2 million of employees	1,1 billion
May	7,9 million of employees (858 000 firms)	5 billion		
June	4,5 millions of employees (378 000 firms)	2,4 billion		
July	2,4 millions of employees (197 000 firms)	1,4 billion		

Source : <https://dares.travail-emploi.gouv.fr/dares-etudes-et-statistiques/tableaux-de-bord/le-marche-du-travail-pendant-le-covid-19/tableaux-de-bord-hebdomadaires/article/situation-sur-le-marche-du-travail-au-15-septembre>

- *Definitions*

Firms can request a partial activity authorisation if they encounter difficulties or they have to stop their activities due to the Covid-19 pandemic, which allows them to allocate employees to partial unemployment.

- *Eligibility conditions*

Employees working in private firms whose activity has been affected by the COVID-19 pandemic and, as a consequence, the firm has requested a partial activity authorisation to temporarily layoff (fully or partially) their employees. Employers pay their employees' wages and these are partially reimbursed retrospectively by the administration. Administration must answer within 15 days. The authorisation is granted for a renewable period up to 12 months.

Since 1st September, in case of school closure or in case of isolation of children due to Covid-19, if neither parent can be in telework, one of them can claim partial unemployment.

To identify workers undergoing the transition to wage compensation in EUROMOD, a random variable drawn from a uniform distribution is used to allocate individuals to the scheme. The following table shows the share of workers in different sectors that are assumed to undergo transitions to wage compensation for at least one month.

Sector (EUROMOD variable <i>lindi</i>)	Share of workers
1: Agriculture & fishing	11%
2: Mining, Manufact. and Utilities	36%
3: Construction	62%
4: Wholesale and retail	18%
5: Hotels and restaurants	100%
6: Transport and communication	40%
7: Financial intermediation	17%
8: Real estate and business	71%
9: Public administ. and defence	8%
10: Education	8%
11: Health and social work	8%
12: Others	62%

The duration of the wage compensation for each worker depends on the time of inactivity or partial activity of the firm. For the simulation in EUROMOD, the following distribution is assumed:

Number of months in wage compensation	Share of beneficiaries
2 months	10%
3 months	39%
4 months	24%
5 months	27%

Note: The number of months that each beneficiary spends in wage compensation cannot be higher than the number of months in which the worker worked in the dataset (yemmy).

Workers transiting to compensation schemes are assumed to work a share of their normal hours between 49% and 58%.

All the figures above have been computed using official statistics from the Ministry of Labour, Employment and Inclusion as of 15 September (<https://dares.travail-emploi.gouv.fr/dares-etudes-et-statistiques/tableaux-de-bord/le-marche-du-travail-pendant-le-covid-19/tableaux-de-bord-hebdomadaires/article/situation-sur-le-marche-du-travail-au-15-septembre>).

- *Income test*

There is no income test for this benefit. The benefit amount depends on the salary earned.

- *Benefit amount*

The amount paid to the employee is 70% of the gross hourly wage for each hour not worked (84% of the net hourly wage), 100% up to SMIC, with a minimum of 8,03€ and a max of 31,97€ per not worked hour.

In the context of **Covid-19** crisis, the access to partial unemployment is facilitated until summer 2021. Administrative procedures are relaxed for employers. For childcare in case of school closure, employee must give certificate in order to access partial unemployment. The amount remaining to pay by employer is deleted up to 4,5 SMIC (6927€), the delay for administrative procedures is increased and the administration answer time is reduced to 2 days (instead of 15 usually).

The amount is paid:

- From March to May, the 70 % are totally paid by administration.
- Since 1st June, the administration pays 85% of the 70% and the firm pays the remaining 15%. The administrations continues paying 100% for sectors particularly impacted by Covid crisis (hotels and restaurants, tourism, culture, sport and events.).

- *Compatibilities*

This benefit is not compatible with any inactivity benefit (ARE, ASS, RSA).

- *Taxation and income testing*

The amount paid by employer is exonerated from social contributions (both employee and employer part) but submitted to CSG (rate 6,2) and CRDS (0,5%) on the basis of 98,25% of the compensation paid (this deductions are not paid if they lead to a remuneration lower than gross SMIC (1539,42€). The amount paid by employer is included in the income test for other benefits.

- *EUROMOD notes*

This policy is simulated in EUROMOD with the general rules in place on the 30th June, meaning that 85% of the wage compensation is paid by the administration and the rest by the firm. This is applied to all workers, due to data limitations to identify sectors that keep the 100% payment by the administration.

This policy can only produce results if the model is run in combination with the LMA add-on. The individuals that are selected to undergo transitions to monetary compensation schemes are defined in the TransLMA_xx policy, which is switched on automatically by the add-on. For more information about the modelling of labour market transitions please consult the ‘*Simulating labour market transitions in EUROMOD*’ document.

2.8 Self-employed and firm compensation scheme in response to **Covid-19** (bwkmcse_s)

- *Definitions*

In order to reduce the effects of the Covid-19 crisis, France implemented a solidarity fund to compensate firms and self-employed for turnover losses higher than 50%, when comparing March/April/May 2020 to the same months of the previous year. Eligible firms and self-employed are those with less than 10 employees, turnover below 1 million EUR and taxable profits below 60,000 EUR. The maximum compensation is 1500€ per month (maximum 4,500€ for the three months). Firms and self-employed fulfilling certain conditions can get an additional amount between 2000€ and 5000€. From 1st June onwards, these measures are only applied to sectors strongly affected by the crisis (restaurants, tourism, culture, sport and events), doubling the limits of workers (now 20) and turnover (now 2 million EUR).

These measures are applied in two stages. The first stage (“volet 1”) concerns the losses during the lockdown for March, April and May (maximum 1500€ per month). The second stage (“volet 2”) concerns those who have benefited of the first stage to apply for an additional allowance between 2000 and 5000 € (only for firms or self-employed who are in sectors strongly affected by the crisis and whose loss is 80% or more).

A one-off financial assistance of 1250€ can also be granted to self-employed (except liberal professions) with the limit of the previous contributions paid by the self-employed. They can also get a deferral of their social and tax contributions. Furthermore, firms with financial problems can obtain government guaranteed loans or can reschedule their loan payments with their bank.

- *Eligibility conditions*

Until 31st May, self-employed with less than 10 employees, turnover of the previous year below 1 million EUR and taxable profits of the previous year below 60,000 EUR. From 1st June onwards, only self-employed of some sectors (restaurants, tourism, culture, sport and events) can benefit, with increased limits of employees (20) and turnover (2 million EUR).

Additional eligibility conditions apply:

- Activity should have started before 01/02/2020
- Cannot be in suspension of payments at 01/03/2020

- *Income test*

Conditions on turnover, turnover losses and taxable profit (see above).

- *Benefit amount*

Turnover loss with a maximum of 1500€ per month for the first stage of the solidarity fund; 2,000€ to 5,000€ for the second stage; 1,250€ for the extraordinary financial assistance.

- *Taxation and income testing*

Not taxable.

- *EUROMOD notes*

For the solidarity fund, only the first stage is simulated, due to data limitations to simulate the second one. However, only the eligibility conditions related to profits (<60,000 EUR) and number of employees (<10) can be simulated. Since there is no information on turnover losses, it is assumed that all eligible self-employed get the actual average benefit computed on the 1st October 2020 (1,278€).

This policy can only produce results if the model is run in combination with the LMA add-on. The individuals that are selected to undergo transitions to monetary compensation schemes are defined in the TransLMA_xx policy, which is switched on automatically by the add-on. For more information about the modelling of labour market transitions please consult the ‘*Simulating labour market transitions in EUROMOD*’ document.

The one-off financial assistance is simulated using current self-employed social insurance contributions as a proxy of previous contributions, which are not available in the dataset.

3. DATA

3.1 General description

The French database corresponds to the French part of the European Union Statistics on Income and Living Conditions (EU-SILC) provided by Eurostat. This is a rotating panel survey (9 rotational groups), representative of the French population in private households (all persons aged 16 and over within the household are eligible), excluding French Overseas Departments and territories (DOM). The French survey used to build the French EU-SILC is conducted by INSEE and is named “*Statistiques sur les ressources et les conditions de vie*” (SRCV).

Before 2010, the reference population is estimated from the 1999 population census and the dwellings built since then. Since 2010, the reference population is estimated from Octopusse (“Organisation coordonnée de tirages optimisés pour une utilisation statistique des échantillons”) which is updated each year on the basis of the dwellings enumerated the previous year (only principal residence in metropolitan France). Around 11.500 households are surveyed each year, of which approximately 10.000 have been surveyed the previous year (participation in this survey is obligatory for four consecutive years). The sample is stratified to be representative of the French population at the national level. Data collection is

annual. The survey is conducted over a period of six weeks in May and June. The unit of assessment is the sociological household, defined as persons living at the same dwelling.

French EU-SILC 2018 sample statistics project to a reference population of 63.375.027 individuals.

Since 2008, statistical matching is performed with tax sources and the amount of (taxable) income and social benefits actually received by the households over the reference year is collected directly from the public finance body, the DGFIP and the three main Benefit funds in France: the national family allowances fund (CNAF), the national old-age insurance fund (CNAV) and the central agricultural social insurance fund (CCMSA).

For more information on technical issues:

<https://www.insee.fr/en/metadonnees/source/serie/s1220>

EUROMOD database description

EUROMOD database	FR_2018_a1
Original name	EU-SILC 2018
Provider	Eurostat
Year of collection	2018
Period of collection	May to June 2018
Income reference period	Year 2017
Sample size	24.620 IND 10.876 HH
Response rate	78.7 %

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 young children are not living alone or family relations are coherent).

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 (78 observations deleted).

Item non-response is treated by means of a re-weighting procedure for the first period and by re-interrogation for the following periods in the original SRCV data.

The following variables are used to compute the new weight: age, population density home, household type, number of men and women by age category, reference person's education, profession of reference person.

3.3 Imputations and assumptions

3.3.1 Time period

The EU_SILC information on demographic variables refers to the time of data collection (May-June, 2018).

However, some information also indicates the status quo at the end of the income reference period (2017). For example, there are two age variables: one of them indicating age at the time of the survey implementation and one at the end of 2017. A similar situation is observed for some socio-economic and labour variables.

For example, variable rb210 (basic activity status) refers to the data collection time, while variable pl073 indicates number of month in full time work during the income reference period (the calendar year of 2017). If possible, the corresponding demographic, labour and socio-economic information in the EUROMOD dataset was based on the EU-SILC variables referring to the income reference period.

The EU-SILC UDB information on incomes refers to the calendar year of 2017, based on a 12-month receipt period. All monetary incomes in the EUROMOD database are converted into monthly terms. In the EUROMOD calculations it is implicitly assumed that income is received at the same rate throughout the year.

3.3.2 Gross incomes

The EU-SILC survey contains information on both gross and net monetary incomes, if applicable. The survey also contains flag variables, which indicate if the observation has been collected either in gross or net form. In most of cases, the incomes are collected in net terms (excepted for work income which is collected net of CSG and non-deductible CRDS). The gross incomes were recalculated by INSEE by adding the social contributions CSG, CRDS and employee social contributions (if applicable for work income). These contributions are estimated using inversion of the tax rules. More information can be found in the Country Quality Report:

<https://www.insee.fr/fr/metadonnees/source/serie/s1220>

3.3.3 Disaggregation of harmonized variables

A number of variables necessary for the simulation of tax-benefit system in France are not available in the EU-SILC UDB and, as such, have been fully imputed in the EUROMOD dataset. A list of these variables and the way they have been derived follows:

- 1) The unemployment benefit in the UDB has been disaggregated into a contributory unemployment benefit (corresponding to ARE) and a means-tested unemployment benefit (corresponding to ASS). The disaggregation has been performed based on benefit rules and average daily benefit amounts.
- 2) The aggregate family benefits variable existing in the UDB has been split into several components. The universal child benefit (AF) has been separated from the aggregate variable based on benefit rules. Similarly, means-tested child benefits (CF, ARS, PAJE) have been disaggregated based on benefit rules and based on the relationship between gross incomes and net taxable incomes derived from EU-SILC. Residual amounts have been included in a separate variable-other child benefits.
- 3) Means-tested disability benefits (AAH) have been separated from contributory disability pensions based on the observed amounts of the aggregate variable and policy rules.
- 4) Means-tested survivor minimum pension (AV) has been separated from contributory survivor benefits by applying benefit rules.
- 5) Social exclusion benefits have been split into the main social assistance benefit (RSA), the activity allowance and the rest by simulating benefit rules. Any residual amounts are saved in a separate variable-other social assistance benefits.
- 6) Old-age pensions have been split into contributory pensions and a means-tested benefit for the elderly (ASPA). The splitting has been done based on benefit eligibility rules relating to age and income as well as on the observed amount in the dataset.
- 7) Employment income during the previous year -for individuals receiving unemployment insurance benefits- has been imputed by inverting benefit rules.

- 8) The geographical zone variable used in the calculation of the housing benefit (AL) has been imputed based in the region (NUTS 2 level db040) and urbanization (DB100).
- 9) The housing benefit in SILC has been disaggregated in two variables-benefits received by tenants and benefits received by the rest based on tenure status.
- 10) Employment income has been split into pay on account of ‘regular hours’ and overtime pay. The split has been based on the current number of hours paid reported in SILC. ‘Regular hours’ are assumed to be 35 hours per week for every employee (i.e. including part-time). An average hourly pay has been calculated based on yearly employment pay, number of months spent in employment and hours worked per week. The disaggregation takes into account the possible statutory rules on overtime pay (i.e. extra 25% pay for the first 8 hours per week and 50% for extra thereafter). Overtime pay is assumed to be zero for employees working less than 35 hours per week and for employees observed to be working less than 12 months in the income reference period (the information on number of hours worked is considered too unreliable to perform the split for the latter category).

3.4 Updating

EUROMOD currently permits the simulation of 15 policy years, i.e. 2006-2020. Currently, all the simulations are done using six datasets, namely FR-SILC 2007, FR-SILC 2010, FR-SRCV2012, FR-SILC2015, FR-SILC2016, FR-SILC2017 and FR-SILC2018 which contain 2006, 2009, 2011, 2014, 2015, 2016 and 2017 incomes. Thus the data year and policy years are aligned only in 2006, 2009, 2011, 2014, and 2015, 2016 and 2017. To account for any time inconsistencies between the input dataset and the policy year, a set of uprating factors is used. These factors typically correct for changes in the average incomes between the data year and the policy year or indexation rules. Separate factors are used for most income components. No attempt has been made to correct for demographic and other population changes between the data year and the policy year. The list of updating factors for the 2018 dataset as well as the sources used to derive them can be found in annex 2. Note however that in the case of simulated variables, the actual simulated amounts are used in the baseline rather than the uprated original variables in the dataset. Uprating factors for simulated variables are provided so as to facilitate the use of the model in cases when the user wishes to turn off the simulation of a particular variable.

4. VALIDATION

4.1 Aggregate Validation

The definition of disposable income used in EUROMOD differs slightly from the concept of disposable income calculated in SILC. More specifically, in EUROMOD we add income from private pension plans and since all taxes and benefits are calculated ‘exactly’ via simulation we disregard tax adjustment repayments. We also do not add the value of the company car to the final household disposable income.

4.1.1 Components of disposable income

Table 4.1 lists the income components included in EU-SILC and EUROMOD separately. Note that there are some slight differences in the two definitions.

Table 4.1 Definitions of disposable income in EU-SILC and EUROMOD

	EUROMOD ils_dispy	EU-SILC HY020
Employee cash or near cash income	+	+
Employer's social insurance contribution	0	0
Contributions to individual private pension plans	0	0
Cash benefits or losses from self-employment	+	+
Pension from individual private plans	+	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	+	+
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	0	+
Company car	0	+

Notes: a value of 0 is used to denote that the respective income concept does not enter the calculation of household disposable income;

4.1.2 Validation of incomes inputted into the simulation

A comparison of the number of employed and unemployed derived from the underlying EUROMOD micro data compared to an external benchmark is presented in Table 4.2 in Annex 3. The match is quite good for 2018, the year of the data. No adjustments are made in EUROMOD to correct population characteristics other than income and so employment and unemployment changes taking place after 2018 are not reflected in the EUROMOD data.

Table 4.3 in Annex 3 displays the number of recipients of market income sources both in EUROMOD and in external administrative data. Note that the concepts used in EUROMOD and in external statistics are slightly different. In EUROMOD, the number of employees/ self-employed is computed as the sum of all individuals who receive some employment/ self-employment income over the year. Instead, the external data refer to the numbers recorded at a given point in time, i.e. on the 31st of December of the corresponding year. As such, one should expect slightly higher figures in EUROMOD compared to administrative statistics. Indeed, this is the case for employment income. In the base year, the number of recipients is recorded to be approximately 18 % higher for employment and 4 % for self-employment income in EUROMOD compared to the external benchmark.

Table 4.4 in Annex 3 repeats the same comparisons, but using amounts instead of number of recipients. EUROMOD values in this table refer to what we observe in EU-SILC in 2018, and uprated values thereafter. Average gross employment income in EUROMOD is about 29% lower compared to the external benchmark. One possible explanation is the fact that the external data refers to average wages computed on a full-time basis whereas EUROMOD uses all employees (both part-time and full-time as well as persons with partial spells of non-employment) to determine the average. Nonetheless, not only

average employment income but also total employment income is underestimated in SILC compared to external statistics, suggesting, possibly, the inability of SILC to capture high income earners. Total self-employment income in SILC is also underestimated compared to the external figure, whereas investment income is overestimated.

Not all benefits and taxes are simulated in EUROMOD. Instead, when enough information to carry out a reliable simulation is lacking, these income components are taken directly from the underlying micro-data.

Table 4.5 in Annex 3 compares the number of recipients of non-simulated benefits and taxes in SILC to external administrative information. It is clear that SILC approximates the existing number of pensioners very well until 2017 at least (after which point, external figures are unavailable). The number of recipients of other child benefits is slightly overestimated in SILC. For disability and survivor pensions, the number of recipients is significantly underestimated, being 41% and 22% lower than in SILC, respectively.

Table 4.6 in Annex 3 compares the amounts of non-simulated benefits and taxes in EUROMOD to external administrative information. Whereas survivor and disability pensions are clearly underestimated in EUROMOD, old-age pensions and other child benefits are overestimated. This pattern could be explained by the fact that SILC aggregates all benefits received by people over 65, irrespective of their nature, into old-age pensions. Thus, disabled people and widows over 65 receiving disability and survivor benefits respectively appear to be receiving old-age pensions in EUROMOD. Sickness benefits are also significantly underestimated in EUROMOD. It is not entirely clear what the reason is. Note that the EUROMOD variable contains more benefits than the external benchmarks (related to child disability, adoption, parental care etc.). It has not been possible to reconstitute exactly the EUROMOD variable using external administrative data.

The total amount of wealth tax paid is underestimated in SILC compared to administrative statistics by around 40% in 2017. It is possible that the SILC variable does not capture the wealth tax accurately or under-samples people who are liable. In 2018 and 2019, there is a significant overestimation of the wealth tax in SILC. The contribution on investment income changed in France. A significant portion of investment income from productive investments has been removed from taxation. Taxation is now largely focused on real estate assets and moved to IFI, *Impôt sur la fortune immobilière*.

4.1.3 Validation of outputted (simulated) incomes

The numbers of recipients/payers of simulated benefits and taxes are shown in Table 4.7 in Annex 3. The table shows that the number of beneficiaries of the universal child benefit, the means-tested large family allowance, the means-tested benefit for young children, the means-tested birth grant and the number of payers of the personal income tax are well simulated.

The number of people eligible for the means-tested disability benefit, the means-tested old-age benefit (ASPAs) and the family support allowance is significantly underestimated. In all likelihood, the disability status variable in EUROMOD fails to capture a large share of individuals entitled to disability benefits. For the minimum income for the elderly, eligibility is conditioned by observed receipt in the data, *in addition* to all applicable eligibility conditions. This substantially reduces the number of simulated eligible individuals. Note also that there is an interaction between ASPAs and the guaranteed minimum income (RSA). More specifically, some individuals who in practice are entitled to ASPAs but whose entitlement is not simulated, will be simulated to be entitled to receive the RSA. Thus, the underestimation of benefit recipients in the case of ASPAs could lead to an overestimation of beneficiaries of the RSA. The high undersimulation of the family support allowance results from the lack of information on the payment of alimonies.

When simulating random non-take-up, the number of recipients of RSA is underestimated. A potential explanation relates to the fact that households entitled to small amounts are less likely to claim and this is not taken into account in the take-up simulation. Eligibility is based on yearly incomes so shorter periods of low income/ being outside of work and eligible to claim may be missed. The number of people entitled to the activity allowance is underestimated in 2018 and 202, respectively 8% and 20%.

Finally, the number of recipients of the contributory unemployment benefit in EUROMOD is significantly overestimated. This is entirely due to observed receipt in SILC (eligibility in EUROMOD is constructed as to reproduce observed receipt in the data). This can clearly be seen by the fact that simulated numbers and those derived from the original data are indeed very close. Since in SILC the contributory unemployment benefit is aggregated together with the means-tested one, it is possible that errors stemming from the disaggregation process are responsible for the overestimation.

Table 4.8 in Annex 3, displays information on the overall aggregate revenue and expenditure corresponding to the various tax and benefit instruments. Most simulated child and family benefits are slightly underestimated. Aggregate means-tested disability allowances are underestimated, again due to not capturing the recipient population properly. This shortcoming is due to the disability status variable in SILC which is more restrictive than disability requirements associated with this benefit. Means-tested total housing benefits are somewhat underestimated in EUROMOD, to the same degree that the number of beneficiaries of this benefit is underestimated. Again, keep in mind that the EUROMOD and external figures are not entirely comparable due to the aggregations of external information. In the case of the main means-tested benefit RSA, total amounts (including a random take-up simulation) are underestimated. Households entitled to small amounts are less likely to claim. To the extent that EUROMOD simulated non-take-up to be random, this introduces errors in the final results. Total spending on contributory unemployment benefits is rather well estimated.

The simulated value of personal income tax revenues is generally in line with external statistics. Keep in mind that there are a range of complex tax deductions and credits in France that we are unable to simulate. We simulate the most important ones relating to rental income, dividends, overtime pay and childcare but it is likely that we miss some deductions that are particularly important for those with high income. As such, we would expect income tax to be oversimulated. However, some important market income components (earnings, investment & property) are underreported in the data compared to external statistics. The two taxes specific to the French system, CSG and CRDS, are fairly accurately simulated in EUROMOD.

4.2 Income distribution

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

4.2.1 Income inequality

Several inequality indicators as obtained in EUROMOD are compared with external benchmarks in Table 4.9 in Annex 3. The external figures come from the EUROSTAT’s statistics database. The table shows that median and mean disposable incomes are rather well aligned. Overall inequality, as expressed by the Gini coefficient and the S80/S20 ratio, is slightly underestimated in EUROMOD when information is available. Finally the comparison of decile shares indicates that income at the bottom is slightly overestimated in EUROMOD while incomes in the middle of the distribution are well aligned and incomes at the top of the distribution are slightly underestimated. There may be several possible explanations for the noted discrepancies. First, note that no adjustments to socio-demographic variables are made in EUROMOD in situations where the policy year does not correspond to the data year. In particular, no adjustment is made for changes in employment and unemployment that have taken place

between 2018 and the policy year. Second, it is possible that the uprating factors used to account for changes in incomes are not capturing changes in the income distribution. More specifically, uprating factors are based on changes in average income components. If however incomes are rising faster at the top compared to the bottom, this would both increase inequality and not be captured in the change in averages.

4.2.2 Poverty rates

At-risk of poverty rates using various poverty thresholds are shown in Table 4.10 in Annex 3, both in total and by gender, and by age group for the 60% of the median threshold. Poverty is underestimated in EUROMOD, both for men and for women, when using lower poverty thresholds. Using higher poverty thresholds, poverty rates estimated by EUROMOD are closer to external benchmarks. This suggests that non take up of some means-tested benefits or administrative errors in the implementation of these benefits may play a role which EUROMOD cannot adequately capture. Only the non-take-up of general social assistance (*RSA*, Activity allowance) is simulated in EUROMOD. Moreover, non-take up is simulated to be random. If marginalized, peripheral groups are less likely to claim benefits to which they are theoretically entitled, and therefore incomes at the bottom will be inflated in EUROMOD. Finally, poverty is underestimated for most age groups, it is not entirely clear what is causing this pattern.

4.2.3 Validation of minimum wage

EUROMOD also allows for the simulation of the minimum wage (*SMIC*), although this policy is tuned off in the baseline and thus its effects are not included in the previous tables. In Table 4.11 in Annex 3, baseline results (in which minimum wage is not simulated) are compared to results obtained when the minimum wage is simulated. Overall, changes are very small as the number of people affected by the simulation of the minimum wage is not very large (the minimum wage is simulated on an hourly basis to take account of part time work and spells of non-employment during the income reference period).

4.3 Summary of “health warnings”

Several things should be kept in mind when interpreting EUROMOD results:

- Employment income appears to be underreported in SILC compared to external benchmarks
- Similarly, some other types of incomes such as sickness benefits, investment and property incomes are lower in SILC compared to external information
- Accurate simulation of the parental leave benefit (*CLCA*) was not possible given available information in SILC. However, both the amount of benefits and number of recipients appear to be close to external statistics
- Non-take-up of the main social assistance benefits (*RSA*, activity allowance) is simulated to be random. Non-take-up however is most likely to be non-random. Comparisons between results obtained in EUROMOD and external benchmarks suggest that households entitled to lower amounts are less likely to claim
- Simulation of eligibility for the contributory unemployment benefit (*ARE*) is inaccurate due to the quality of data in SILC
- Eligibility for the means-tested social assistance for the elderly (*ASPA*) and means-tested unemployment benefits (*ASS*) is simulated based on observed receipt in the data
- Overall, inequality based on EUROMOD simulated incomes is lower. Poverty rates, especially when calculated using low poverty thresholds, are underestimated
- Youth poverty is underestimated
- Maternity and paternity benefits are simulated but switched OFF for policy years 2015-2020. We do not have detailed external data to validate the number of recipients in EUROMOD. The

total annual amounts for maternity and paternity leave based on EUROMOD simulations are largely overestimating the budget compared to the administrative data. The simulation of the eligibility for these benefits is based on several assumptions due to lack of information in the EU-SILC.

- The simulation of monetary compensation schemes is triggered by the simulation of labour market transitions defined in policy TransLMA_cc. This policy becomes operational if the model is run in conjunction with the LMA add-on. The nature of these simulations is still experimental and only partially validated. Users are encouraged to refer to the “Simulating labour market transitions in EUROMOD” document prior to their use.
- Labour market transitions are switched OFF in EUROMOD baselines. As a consequence, the simulation of monetary compensation schemes does not produce any effect in baseline simulations. Since all policies not linked to labour market transitions are fully functional, it is possible for disposable income in 2020 to be higher than disposable income in previous years.

5. REFERENCES

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ANNEX 1: POLICY EFFECTS

Table 2 and Figure 2 show the changes in mean equivalised household disposable income induced by policy changes between 2019 and 2020, by income component and income decile group. The effect is computed as the difference between equivalised household disposable income under the 2020 tax-benefit policies (deflating monetary parameters by projected Eurostat's Harmonized Index of Consumer Prices, HICP) and that simulated under 2019 policies, as a percentage of the latter.

On average, 2020 policy changes led to an increase in disposable income of 0.77 %. The most important effects are due to a reduction in direct taxes (+0,40 % of the total disposable income), an increase in non means-tested benefits (+0,21%) and in means-tested benefits (+0,13 %) and to a lesser extent to an increase in public pensions (+0,04 %).

Several social measures have been taken in France to reduce the effects of the Covid-19 crisis including an exceptional solidarity aid for poor households for beneficiaries of RSA, ASS or APL and the postponement of planned reforms (see the CR's specific section for details). These measures impacted the means-tested benefits and combined with the annual increase of this type of benefits (around 1,4%) led to an increase in the disposable income concentrated on low-income households (the effects decrease with the decile increase, the most important increases are for D1 (1.1 %), D2 and D3).

The increase in non means-tested benefits reflects the Covid-19 measures to support the self-employed as well as small increases in family support allowance and in universal child benefit to. The increase is higher for the lowest deciles (particularly for D1 and a little less for D2 and D3).

The increase due to public pensions is the consequence of the re-indexation to inflation for low-income retirees (pensions less than 2000€ per month), the effect is then visible for the first five deciles (especially for the third) and, to a lesser extent, for the four next deciles (with a slight negative impact for the higher).

The reform of the personal income tax implemented in 2020 (change in income brackets and reduction of the marginal tax rate for the second bracket from 14 to 11 %) leads to an increase in disposable income for all deciles but more particularly for the middle classes (D5 and after) and even more for the highest deciles (except D10 whose increase is less important).

The part of increase in disposable income over the deciles is reversed for direct taxes and means-tested benefits. For the high deciles, the impact of the direct taxes on disposable income is high and the impact of means tested benefits is low; conversely, for low deciles, the impact of the means-tested benefit on disposable income is high and the impact of direct taxes is low.

In distributional terms, 2020 policy changes delivered an increase in disposable income for all deciles, but higher in the three first deciles and in the upper half (D7 to D9); Deciles 4 and 10 show the smallest increases (respectively 0.55 and 0.34 %), while deciles 1, 2, 3, 8, 9 show the largest (from 2 to 0.7 % for the low deciles and from 1 % to 0.92 % for D8 and D9). The higher increase in disposable income takes place in D1 and is essentially due to benefits. Changes in direct taxes also show largest effects on the high deciles (to a lesser extent for the highest decile), while changes in means-tested and non means-tested benefits impact more the lowest deciles. Finally, as might be expected with the reform, the impact of pensions on disposable income decreases when deciles increase.

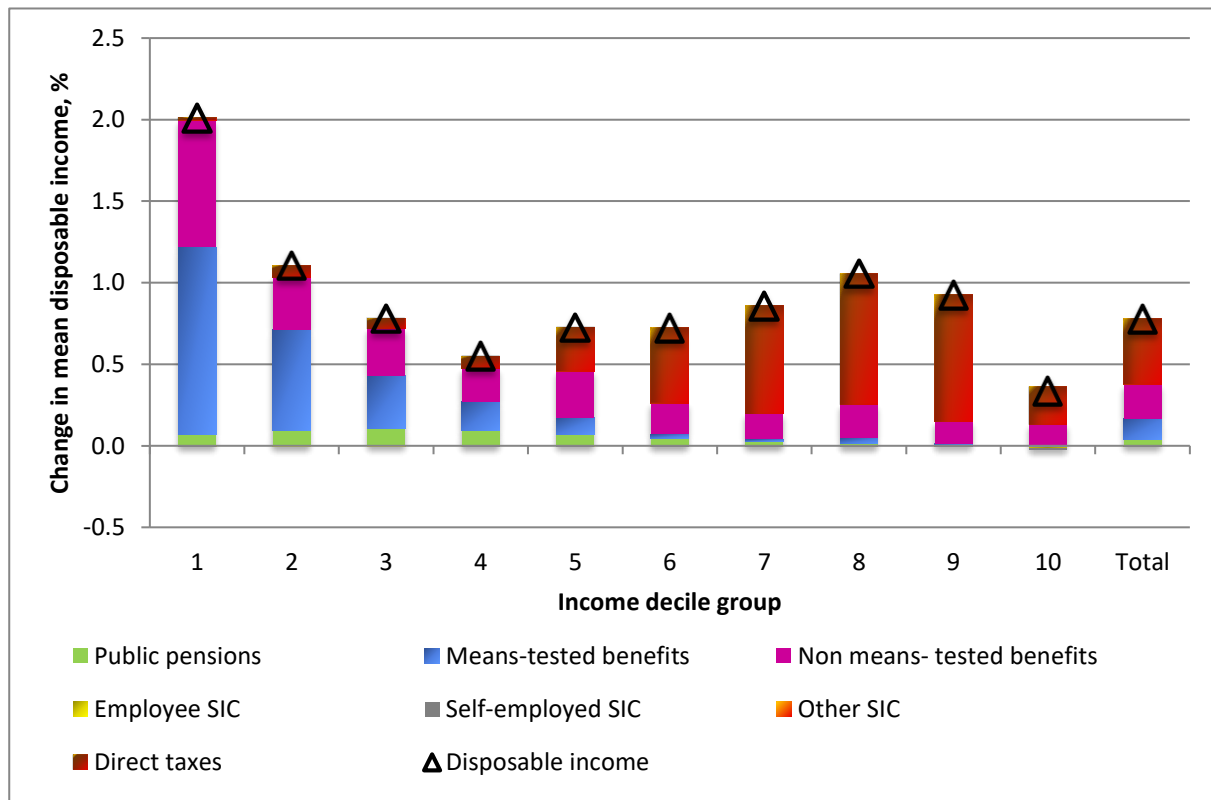
Table 2: Policy effects in 2019-2020, using the CPI indexation [1,00419207317073] on dataset FR_2018_a2, %

FR Results for France with alpha: CPI [1,00419207317073] on dataset FR_2018_a2

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0,00	0,07	1,15	0,78	0,00	0,00	0,00	0,02	2,01
2	0,00	0,09	0,62	0,32	0,00	0,00	0,00	0,08	1,10
3	0,00	0,11	0,32	0,29	0,00	0,00	0,00	0,07	0,78
4	0,00	0,09	0,18	0,20	0,00	0,00	0,00	0,08	0,55
5	0,00	0,07	0,10	0,29	0,00	0,00	0,00	0,27	0,72
6	0,00	0,05	0,02	0,19	0,00	0,00	0,00	0,46	0,72
7	0,00	0,03	0,01	0,16	0,00	0,00	0,00	0,66	0,86
8	0,00	0,01	0,04	0,21	0,00	0,00	0,00	0,80	1,05
9	0,00	0,01	0,01	0,13	0,00	0,00	0,00	0,78	0,92
10	0,00	-0,01	0,00	0,13	0,00	-0,01	0,00	0,23	0,34
Total	0,00	0,04	0,13	0,21	0,00	0,00	0,00	0,40	0,77

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat’s Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2019-2020, using the CPI indexation, %



ANNEX 2: UPRATING FACTORS

Income component	Uprating factor name	2017	2018	2019	2020	Source
Harmonized Indices of Consumer Prices (HICP)	\$f_hicp	101.47	103.60	104.95	105.26	Eurostat / Harmonized Indices of Consumer Prices (HICP);- HICP (2015=100) - Monthly data (prc_hicp_midx) http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_midx&lang=en
Harmonized Indices of Consumer Prices (HICP)	\$f_hicp	117.35	119.82	121.37	121.73	Eurostat / Harmonized Indices of Consumer Prices (HICP);- HICP (2005=100) - Monthly data (prc_hicp_midx) http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_midx&lang=en
Average annual net full-time equivalent salary - All salaried workers	\$f_yem	28 065	28 867	29 721	30 480	INSEE IdBank 001665118 http://www.bdm.insee.fr/bdm2/affichageSeries?request_locale=en&anneeDebut=2007&codeGroupe=1475&recherche=criteres&idbank=001665118&anneeFin=2012
Average annual net full-time equivalent salary - First quartile	\$f_yem_q1	17 717	18 224	18 763	19 242	INSEE IdBank http://www.bdm.insee.fr/bdm2/affichageSeries?anneeDebut=2007&anneeFin=2012&recherche=criteres&codeGroupe=1476&idbank=001665118&idbank=001665121&idbank=001665124&idbank=001665127&idbank=001665130&idbank=001665133&idbank=001665136&idbank=001665139&idbank=001665143&idbank=001665146&idbank=001665148
Average annual net full-time equivalent salary - Second quartile	\$f_yem_q2	22 454	23 096	23 779	24 386	INSEE IdBank 001665127 http://www.bdm.insee.fr/bdm2/affichageSeries?anneeDebut=2007&anneeFin=2012&recherche=criteres&codeGroupe=1476&idbank=001665118&idbank=001665121&idbank=001665124&idbank=001665127&idbank=001665130&idbank=001665133&idbank=001665136&idbank=001665139&idbank=001665143&idbank=001665146&idbank=001665148
Average annual net full-time equivalent salary - Third quartile	\$f_yem_q3	31 066	31 954	32 899	33 740	INSEE IdBank 001665130 http://www.bdm.insee.fr/bdm2/affichageSeries?anneeDebut=2007&anneeFin=2012&recherche=criteres&codeGroupe=1476&idbank=001665118&idbank=001665121&idbank=001665124&idbank=001665127&idbank=001665130&idbank=001665133&idbank=001665136&idbank=001665139&idbank=001665143&idbank=001665146&idbank=001665148
Gross wages and salaries (totals from AMECO)	\$f_yem_Ameco	892.90	918.43	945.59	969.76	DG ECFIN/AMECO, household and NPISH/revenue/gross wages and salaries (Mrd euros) http://ec.europa.eu/economy_finance/ameco/user/serie/ResultSerie.cfm

Income component	Uprating factor name	2017	2018	2019	2020	Source
Inflation rate (from INSEE)	\$f_cpi	101.23	103.12	104.27	103.91	INSEE IdBank 0001765178 http://www.bdm.insee.fr/bdm2/affichageSeries?idbank=001765178&bouton=OK&c odeGroupe=1743
Rent reference index (RRI) - Base 100 on the 4th quarter of 1998	\$f_rri	126.34	128.12	129.84	130.57	INSEE IdBank 001515333 http://www.insee.fr/en/bases-de-donnees/bsweb/serie.asp?idbank=001515333
Monthly average amount per retired person	\$f_poa	1422	1422	1426	1438	INSEE http://www.insee.fr/fr/themes/tableau.asp?reg_id=0&ref_id=NATTEF04571 http://drees.social-sante.gouv.fr/etudes-et-statistiques/publications/panoramas-de-la-drees/article/les-retraites-et-les-retraites-edition-2017
Monthly base for family allowance	\$f_bfa	407.84	411.92	413.16	414.4	http://www.dalloz-actualite.fr/indice/base-mensuelle-de-calcul-des-prestations-familiales.VSfD45PK-AB
Basic AF amount	\$f_bch00	129.86	131.16	131.55	131.95	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Basic CF amount	\$f_bchlg	169.02	170.71	171.23	171.74	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Basic PAJE amount (birth after 1 st April 2018)	\$f_bchyc		170.71	171.23	171.74	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Basic PAJE amount (birth before 1 st April 2018)	\$f_bchyc	184.62	184.62	184.62	184.62	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Basic ARS amount	\$f_bchot	364.08	367.73	368.84	369.95	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Basic Baby Bonus amount	\$f_bchba		946.41	949.26	952.08	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Basic BMAF amount	\$f_bched	407.84	411.92	413.16	414.4	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides/enfance-et-jeunesse
Maximum amount of AAH	\$f_bdi	810.89	819	860	900	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides
Basic AV amount	\$f_bsuwd	602.73	607.54	616.65	622.82	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides

Income component	Uprating factor name	2017	2018	2019	2020	Source
Basic RSA amount	\$f_bsa00	536.78	550.93	559.74	564.78	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides
Basic Activity allowance	\$f_bsawk	528.89	534.2	554.28	555.94	https://www.service-public.fr/particuliers/vosdroits/F2882
Basic ASPA amount	\$f_bsaoa	803.2	833.2	868.2	903.2	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides
rent reference level for AL	\$f_bho	255.23	257.14	257.14	257.92	https://www.caf.fr/aides-et-services/s-informer-sur-les-aides
Average net full-time salary in the PREVIOUS year	\$f_yempv	27 215	28 065	28 867	29 721	INSEE IdBank 001665118 http://www.bdm.insee.fr/bdm2/affichageSeries?request_locale=en&anneeDebut=2007&codeGroupe=1475&recherche=criteres&idbank=001665118&anneeFin=2012
Average disposable income (per hh)	\$f_yds	37 434	37 060	38 156	39 131	INSEE https://www.insee.fr/fr/statistiques/2412465#tableau-Donnes
Pension indexation rules	\$f_poa_index	100.19	100.99	101.29	102.09	INSEE IdBank 0001765178 http://www.bdm.insee.fr/bdm2/affichageSeries?idbank=001765178&bouton=OK&codeGroupe=1743
Change in average investment and property income (2006=base)	\$f_yiy	1.023	1.040	1.052	1.064	Revenu de la propriété reçus diminués des revenus versés. http://www.insee.fr/fr/ffc/docs_ffc/ref/revpmen11h.pdf
Basic daily rate for ASS	\$f_bunmt	16.27	16.48	16.74	16.79	Based on the ASS daily amount
Total amount of ISF collected (billions)	\$f_twl	5.1	5.21	5.27	5.29	Based on the total amount of ISF (Impôt de solidarité sur la fortune) collected: https://www.insee.fr/fr/statistiques/2381408#tableau-Donnes
Total amount of TH collected (billions)	\$f_tmu	19.3	19.7	19.96	20.02	Based on the total amount of TH (taxe d'habitation) collected https://www.insee.fr/fr/statistiques/2381408#tableau-Donnes
Total amount of IRPP collected (billions)	\$f_tin	74	75.6	76.54	76.76	Based on total amount of IRPP https://www.insee.fr/fr/statistiques/2381408#tableau-Donnes
Annual national accounts- GDP Current price	\$f_gdp	2 277 892	2 316 616	2 344 414	2 370 204	INSEE IdBank 001690355 http://www.bdm.insee.fr/bdm2/affichageSeries?request_locale=en&codeGroupe=1560&idbank=001690355&bouton=OK

Income component	Uprating	2017	2018	2019	2020	Source
	factor name					2016 & 2017:GDP :Based on forecasted GDP growth (https://ec.europa.eu/info/sites/info/files/wf2017_statistical_annex_0.pdf)

ANNEX 3: VALIDATION TABLES

Table 4.2-Number of employed and unemployed (in thousands)

	EUROMOD	External					Ratio			
	2017	2017	2018	2019	2020	2017	2018	2019	2020	
Number of employed	25 464,194	26 058	2 659	26 321	26 162	0,98	0,97	0,97	0,97	
Number of unemployed	29 75,3066	2 786	2 682	2 506	2 151	1,07	1,11	1,19	1,38	

Table 4.3-Market income in EUROMOD -Number of recipients (in thousands)

	EUROMOD	External				Ratio			
	2017	2017	2018	2019	2020	2017	2018	2019	2020
Employment income	29 627,143	25 015,2	25 169,3	N/A	N/A	1,18	1,18	N/A	N/A
Self-employment income	3 068,3486	2 875,5	2 946,2	N/A	N/A	1,07	1,04	N/A	N/A
Private pensions	29,37191	17,22	17,443	N/A	N/A	1,71	1,68	N/A	N/A
Rent income	7 143,5901	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Income from capital	36 031,517	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.4-Market income in EUROMOD -Annual amounts (in mil.)

	EUROMOD				External				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Average employment income	26 692,032	27 455,22	282 67,13	28 989,66	37 860	38 477	390 99	N/A	0,71	0,71	0,72	N/A
Employment income	790 808,66	813 419,6	837 474,2	858 880,7	894 800	919 800	946 600	N/A	0,88	0,88	0,88	N/A
Self-employment income	75 772,103	77 938,6	80 243,43	82 294,5	121 400	121 300	N/A	N/A	0,62	0,64	N/A	N/A
Private pensions	294,49536	300,6936	304,5838	305,4871	330,83	338,77	N/A	N/A	0,89	0,89	N/A	N/A
Rent income	36 464,525	36 978,28	37 474,72	37 685,39	185 800	188 800	N/A	N/A	0,20	0,20	N/A	N/A
Income from capital	88 960,054	90 438,32	91 481,98	91 655,95	80 300	82 000	89 500	N/A	1,11	1,10	1,02	N/A

Table 4.5-Tax benefit instruments included but not simulated in EUROMOD -Number of recipients/ payers (in thousands)

	EUROMOD		External			Ratio				
	2017		2017	2018	2019	2020	2017	2018	2019	2020
Benefits										
Contributory old age pensions	16 364,658		16 160	16 377	N/A	N/A	1,01	1,00	N/A	N/A
Disability pensions/benefits	401,7837		666,9	677,1	N/A	N/A	0,60	0,59	N/A	N/A
Survivor pensions/ benefits	428,50256		539	552	N/A	N/A	0,79	0,78	N/A	N/A
Sickness benefits	525,65196		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other child benefits(AEEH)	5 164,8391		4 742,24	5 046,15	4 967,48	N/A	1,09	1,02	1,04	N/A
Social assistance benefits other than RSA	2693,0162		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taxes and Social Insurance contributions										
Wealth tax	279,10521		358,198	N/A	N/A	N/A	0,78	N/A	N/A	N/A

Table 4.6-Tax benefit instruments included but not simulated in EUROMOD -Annual amounts (in mil.)

	EUROMOD				External				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Benefits												
Contributory old age pensions	326 482,11	329 183,45	330 283,05	332 221,04	277 400	284 500	N/A	N/A	1,18	1,16	N/A	N/A
Disability pensions/benefits	3 184,93	3 210,37	3 219,90	3 245,33	67 25	6 984	7 212	7 480	0,47	0,46	0,45	0,43
Survivor pensions/benefits	5 316,95	5 359,40	5 375,32	5 417,78	10 031,968	10 172,416	10 253,79	10 448,62	0,53	0,53	0,52	0,52
Sickness benefits	1 691,43	1 744,25	1 794,10	1 847,18	7 346	7 610	7 915	N/A	0,23	0,23	0,23	N/A
Other child benefits(AEEH)	10 227,65	10 329,94	10 361,04	10 392,14	8 250,5029	8 615,164	8 749,254	N/A	1,24	1,20	1,18	N/A
Social assistance benefits other than RSA	5 561,09	5 707,69	5 798,95	5 851,17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taxes and Social Insurance contributions												
Wealth tax	3 074,40	3 140,71	3 176,88	3 188,94	5 100	1 800	2 100	N/A	0,60	1,74	1,51	N/A

Table 4.7-Tax benefit instruments simulated in EUROMOD -Number of recipients/ payers (in thousands)

	EUROMOD				SILC	Ratio	External				Ratio			
	2017	2018	2019	2020	2017	2017	2017	2018	2019	2020	2017	2018	2019	2020
Benefits														
Universal child benefit (AF)	4 748,98	4 748,98	4 748,98	4 747,52	4 583,17	1,04	4 606,70	4 644,85	4 639,43	N/A	1,03	1,02	1,02	N/A
Means-tested educational allowance (ARS)	2 642,32	2 516,98	2 556,89	2 537,77	1 715,29	1,54	2 827,14	2 832,29	2 824,68	N/A	0,93	0,89	0,91	N/A
Means-tested large family allowance (CF)	905,36	901,14	895,68	895,68	566,24	1,60	836,41	839,95	839,86	N/A	1,08	1,07	1,07	N/A
Family support allowance (ASF)	140,50	140,50	140,50	140,50	0,00	N/A	667,35	693,45	701,44	N/A	0,21	0,20	0,20	N/A
Means-tested benefit for young children (PAJE base)	1 691,87	1 662,46	1 645,93	1 637,95	1 407,87	1,20	1 596,46	1 575,45	1 509,68	N/A	1,06	1,06	1,09	N/A
Means-tested birth grant (PN)	677,13	657,01	661,88	660,10	275,80	2,46	544,25	531,50	520,14	N/A	1,24	1,24	1,27	N/A
Supplementary free choice of activity (CLCA)	257,16	257,16	257,16	257,16	269,83	0,95	269,30	279,13	262,85	N/A	0,95	0,92	0,98	N/A
Means-tested disability benefit (AAH)	267,04	264,47	264,97	264,97	817,37	0,33	1 054,63	1 094,96	1 113,41	N/A	0,25	0,24	0,24	N/A
Means-tested housing allowance (AL):APL+ALS+ALF only tenants caf metrop	4 605,88	4 522,47	4 387,96	4 276,94	9 205,43	0,50	5 729,85	5 734,78	5 405,11	N/A	0,80	0,79	0,81	N/A
Guaranteed min income (RSA)	545,52	551,08	551,08	548,32	2 393,09	0,23	1 626,20	1 660,41	1 667,54	N/A	0,34	0,33	0,33	N/A
Guaranteed min income-in work (RSA activite)	0,00	0,00	0,00	0,00	0,00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Guaranteed min income-inactive (Rsa socle)	545,52	551,08	551,08	548,32	0,00	N/A	1 626,20	1 639,80	N/A	N/A	0,34	0,34	N/A	N/A
Means-tested old-age benefit (ASPA) metrop, régime général	182,73	182,73	185,87	187,72	237,87	0,77	244,39	276,47	N/A	N/A	0,75	0,66	N/A	N/A
Contributory unemployment benefit (ARE)	4 012,18	4 012,18	4 012,18	4 012,18	4 232,80	0,95	3 295,20	3 244,79	3 213,32	N/A	1,22	1,24	1,25	N/A
Means-tested unemployment assistance (ASS)	574,40	558,96	531,02	524,69	1 185,57	0,48	445,53	403,53	369,53	N/A	1,29	1,39	1,44	N/A

Activity allowance	2 661,79	2 631,44	3 376,86	3 267,57	439,32	6,06	2 581,91	2 858,30	4 201,04	N/A	1,03	0,92	0,80	N/A
Taxes and Social Insurance contributions														
Personal income tax (IRPP)	17 236,63	17 140,52	16 833,21	17 854,07	0,00	N/A	16 753,32	19 908,36	N/A	N/A	1,03	0,86	N/A	N/A
Net taxable income (RNI)	35 098,28	35 098,28	35 097,11	35 097,11	0,00	N/A	38 332,98	38 549,93	N/A	N/A	0,92	0,91	N/A	N/A
Refundable tax credit for low earners (PPE)	0,00	0,00	0,00	0,00	0,00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generalized social insurance contributions (CSG)	45 888,10	45 897,44	45 890,38	45 873,35	0,00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contributions for the repayment of the social security's system debt (CRDS)	45 770,62	45 779,95	45 772,90	45 755,87	0,00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Employee social insurance contributions	29 627,14	29 627,14	29 627,14	29 627,14	0,00	N/A	25 015,20	25 169,30	N/A	N/A	1,18	1,18	N/A	N/A
Self-employed social insurance contributions	3 068,35	3 068,35	3 068,35	3 068,35	0,00	N/A	2 871,60	2 946,20	N/A	N/A	1,07	1,04	N/A	N/A
Employer social insurance contributions	29 627,14	29 627,14	29 627,14	29 627,14	23 021,69	1,29	25 015,20	25 169,30	N/A	N/A	1,18	1,18	N/A	N/A
Contributions on capital income	36 287,49	36 287,49	36 287,49	36 287,49	0,00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Exceptional tax on high income earners	14,53	16,12	19,41	19,41	0,00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.8-Tax benefit instruments simulated in EUROMOD -Annual amounts (Mil.)

	EUROMOD				SILC				Ratio				External				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Benefits																				
Universal child benefit (AF)	11 172	11 210	11 259	11 255	9 985	10 085	10 115	10 146	1,12	1,11	1,11	1,11	11 655	11 758	11 781,39	N/A	0,96	0,95	0,96	N/A
Means-tested educational allowance (ARS)	1 606	1 553	1 588	1 981	1 153	1 165	1 168	1 172	1,39	1,33	1,36	1,69	1 838	1 857	1 862,36	N/A	0,87	0,84	0,85	N/A
Means-tested large family allowance (CF)	2 274	2 380	2 365	2 367	1 131	1 142	1 146	1 149	2,01	2,08	2,06	2,06	2 012	2 142	2 173,69	N/A	1,13	1,11	1,09	N/A
Family support allowance (ASF)	312	328	329	330	0	0	0	0	N/A	N/A	N/A	N/A	1 407	1 494	1 540,71	N/A	0,22	0,22	0,21	N/A
Means-tested benefit for young children (PAJE base)	3 567	3 458	3 740	3 727	2 765	2 765	2 765	2 765	1,29	1,25	1,35	1,35	3 519	3 376	3 139,09	N/A	1,01	1,02	1,19	N/A
Means-tested birth grant (PN)	628	622	628	628	185	185	185	186	3,40	3,37	3,39	3,39	552	529	516,15	N/A	1,14	1,18	1,22	N/A
Supplementary free choice of activity (CLCA)	785	793	795	797	643	650	652	654	1,22	1,22	1,22	1,22	1182	942	885,43	N/A	0,66	0,84	0,90	N/A
Means-tested disability benefit (AAH)	2 414	2 430	2 513	2 628	5 072	5 122	5 379	5 629	0,48	0,47	0,47	0,47	8 456	8 769	9 394,88	N/A	0,29	0,28	0,27	N/A
Means-tested housing allowance (AL):APL+ALS+ALF only tenants caf metrop	10 343	10 152	9 659	9 461	16 157	16 278	16 278	16 327	0,64	0,62	0,59	0,58	15 319	14 373	14 163,72	N/A	0,68	0,71	0,68	N/A
Guaranteed min income (RSA)	2 535	2 614	2 660	2 679	6 815	6 995	7 107	7 171	0,37	0,37	0,37	0,37	9 789	10 079	10 200,33	N/A	0,26	0,26	0,26	N/A
Guaranteed min income-in work (RSA active)	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Guaranteed min income-inactive (Rsa socle)	2 535	2 614	2 660	2 679	0	0	0	0	N/A	N/A	N/A	N/A	9 706	9 430	9 825,36	N/A	0,26	0,28	0,27	N/A
Means-tested old-age benefit (ASPA) metrop, régime general	1 668	1 737	1 827	1 915	2 648	2 747	2 863	2 978	0,63	0,63	0,64	0,64	1 639	1 788	N/A	N/A	1,02	0,97	N/A	N/A
Contributory unemployment benefit (ARE)	33 383	34 279	35 122	36 017	32 495	33 510	34 468	35 488	1,03	1,02	1,02	1,01	30 616	31 265	N/A	N/A	1,09	1,10	N/A	N/A
Means-tested unemployment assistance (ASS)	1 861	1 873	1 786	1 792	2 116	2 143	2 177	2 184	0,88	0,87	0,82	0,82	2 686	2 532	N/A	N/A	0,69	0,74	N/A	N/A

Activity allowance	5 432	5 533	7 563	7 356	465	470	487	489	11,68	11,78	15,52	15,05	4 807	5 096	9 004,1	N/A	1,13	1,09	0,84	N/A
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	EUROMOD				SILC				Ratio				External				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Taxes and Social Insurance contributions																				
Personal income tax (IRPP)	78 180	71 962	72 166	70 243	0	0	0	0	N/A	N/A	N/A	N/A	74 100	73 800	75 500	N/A	1,06	0,98	0,96	N/A
Net taxable income (RNI)	954 127	971 118	986 830	1 006 195	0	0	0	0	0,00	N/A	N/A	N/A	997 669	1 023 364	1 065 534	N/A	0,96	0,95	0,93	N/A
Refundable tax credit for low earners (PPE)	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generalized social insurance contributions (CSG)	95 974	119 890	120 194	122 406	0	0	0	0	N/A	N/A	N/A	N/A	99 400	125 300	126 700	N/A	0,97	0,96	0,95	N/A
Contributions for the repayment of the social security's system debt (CRDS)	6 820	6 968	7 113	7 244	0	0	0	0	N/A	N/A	N/A	N/A	7 200	7 400	7 700	N/A	0,95	0,94	0,92	N/A
Employee social insurance contributions	111 546	96 880	80 704	82 745	0	0	0	0	N/A	N/A	N/A	N/A	101 026	89 310	N/A	N/A	1,10	1,08	N/A	N/A
Self-employed social insurance contributions	22 994	22 387	22 454	22 991	0	0	0	0	N/A	N/A	N/A	N/A	23 474	22 619	N/A	N/A	0,98	0,99	N/A	N/A
Employer social insurance contributions	315 909	326 490	303 764	308 898	286 905	295 108	303 835	311 601	1,1	1,11	1,00	0,99	258 360	264 991	N/A	N/A	1,22	1,23	N/A	N/A
Contributions on capital income	8 529	8 664	9 672	9 701	0	0	0	0	N/A	N/A	N/A	N/A				N/A	N/A	N/A	N/A	N/A
Exceptional tax on high income earners	333	332	345	352	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4.9-Distribution of equivalised disposable income

	EUROMOD				External				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
D1	3.92	3.90	3.83	3.85	3.40	3.50	0.00	0.00	1.15	1.11	N/A	N/A
D2	5.65	5.62	5.55	5.54	5.40	5.50	0.00	0.00	1.05	1.02	N/A	N/A
D3	6.63	6.57	6.54	6.52	6.50	6.50	0.00	0.00	1.02	1.01	N/A	N/A
D4	7.49	7.48	7.42	7.40	7.40	7.50	0.00	0.00	1.01	1.00	N/A	N/A
D5	8.44	8.37	8.37	8.37	8.30	8.30	0.00	0.00	1.02	1.01	N/A	N/A
D6	9.33	9.32	9.36	9.35	9.20	9.20	0.00	0.00	1.01	1.01	N/A	N/A
D7	10.38	10.35	10.35	10.40	10.20	10.20	0.00	0.00	1.02	1.01	N/A	N/A
D8	11.68	11.63	11.69	11.75	11.60	11.60	0.00	0.00	1.01	1.00	N/A	N/A
D9	13.83	13.77	13.83	13.87	13.90	13.80	0.00	0.00	0.99	1.00	N/A	N/A
D10	22.66	22.99	23.06	22.95	24.10	23.90	0.00	0.00	0.94	0.96	N/A	N/A
Median	21,950.12	22,430.47	23,422.24	23,976.92	21,960.00	22,220.00	0.00	0.00	1.00	1.01	N/A	N/A
Mean	24,703.29	25,343.62	26,436.73	27,061.63	25,286.00	25,379.00	0.00	0.00	0.98	1.00	N/A	N/A
Gini	26.79	27.09	27.38	27.34	28.80	28.50	0.00	0.00	0.93	0.95	N/A	N/A
S80/S20	3.82	3.86	3.93	3.92	4.31	4.23	0.00	0.00	0.89	0.91	N/A	N/A

Table 4.10-Poverty rates by gender and age

	EUROMOD				External				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
40% median HDI												
Total	2.31	2.31	2.60	2.52	2.90	2.50	3.10	0.00	0.80	0.92	0.84	N/A
Males	2.34	2.32	2.61	2.54	2.90	2.60	3.20	0.00	0.81	0.89	0.82	N/A
Females	2.29	2.30	2.59	2.51	2.90	2.50	3.00	0.00	0.79	0.92	0.86	N/A
50% median HDI												
Total	5.66	5.75	6.18	6.22	6.60	6.70	6.70	0.00	0.86	0.86	0.92	N/A
Males	5.51	5.62	6.12	6.12	6.50	6.80	6.60	0.00	0.85	0.83	0.93	N/A
Females	5.79	5.87	6.24	6.31	6.70	6.70	6.80	0.00	0.86	0.88	0.92	N/A
60% median HDI												
Total	12.05	12.14	12.72	12.91	13.20	13.40	13.60	0.00	0.91	0.91	0.94	N/A
Males	11.84	11.91	12.32	12.46	12.80	13.50	13.30	0.00	0.92	0.88	0.93	N/A
Females	12.24	12.35	13.10	13.34	13.60	13.30	13.90	0.00	0.90	0.93	0.94	N/A
70% median HDI												
Total	20.70	20.67	21.72	21.96	20.80	21.10	21.10	0.00	1.00	0.98	1.03	N/A
Males	20.31	20.18	20.91	21.22	20.00	20.50	20.20	0.00	1.02	0.98	1.04	N/A
Females	21.07	21.12	22.48	22.66	21.60	21.70	21.90	0.00	0.98	0.97	1.03	N/A
60% median HDI												
0-15 years	17.90	18.00	18.44	18.44	18.90	19.40	17.50	0.00	0.95	0.93	1.05	N/A
16-24 years	17.68	17.57	17.87	18.08	19.60	20.50	21.90	0.00	0.90	0.86	0.82	N/A
25-49 years	11.02	11.07	11.33	11.35	12.50	12.40	12.50	0.00	0.88	0.89	0.91	N/A
50-64 years	9.56	9.65	10.28	10.33	10.60	10.80	11.50	0.00	0.90	0.89	0.89	N/A
65+ years	7.69	7.94	9.31	10.07	7.90	8.30	9.70	0.00	0.97	0.96	0.96	N/A

Table 4.11-Minimum wage validation

	Baseline				Min Wage Incl.				Ratio			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Equivalent disposable income	1 091 401	1 119 302	1 165 614	1 192 347	1 106 882	1 134 616	1 180 986	1 207 628	0,99	0,99	0,99	0,99
Employment income	790 809	813 420	837 474	858 881	790 809	813 420	837 474	881 719	1,00	1,00	1,00	0,97
Total income tax	78 180	71 962	72 166	70 243	79 544	73 277	73 476	71 424	0,98	0,98	0,98	0,98
Total employee social insurance contributions	11 1546	96 880	80 704	82 745	11 5003	99 756	83 354	85 360	0,97	0,97	0,97	0,97
Guaranteed min income (RSA)	2 535	2 614	2 660	2 679	2 533	2 611	2 658	2 677	1,00	1,00	1,00	1,00
Gini coefficient	26,79	27,09	27,38	27	26,22	26,55	26,86	27	1,02	1,02	1,02	1,02
Poverty rate (60% median HDI)	12,05	12,14	12,72	13	11,35	11,48	12,08	12	1,06	1,06	1,05	1,04