EUROMOD Country Report – Luxembourg

2021-2024

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

EUROMOD covers the 27 Member States and is yearly updated to cover the most recent changes in countries' policy systems. It uses input databases which are also updated on a yearly basis, coming mainly from the European Union Statistics on Income and Living Conditions (EU-SILC) and Household Budget Surveys (HBS). The model yearly update is supported by the following Directorate-Generals of the European Commission: DG EMPL, DG ECFIN, DG TAXUD, DG REFORM, DG JRC, DG ESTAT.

Originally maintained, developed and managed by the Institute for Social and Economic Research (ISER), since 2021 these responsibilities are taken over by the Joint Research Centre (JRC) of the European Commission, in collaboration with Eurostat and 27 national teams from the EU countries.

The EUROMOD governance structure consists of a Steering Committee, allowing partner DGs to monitor the process of the EUROMOD update, and a Scientific Advisory Board to monitor and guide the scientific development of the model.

This report documents the work done in the most recent annual update for Luxembourg. This work was carried out by the EUROMOD core development team, based at the JRC in Seville, in collaboration with the national team.

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The results presented in this report are derived using EUROMOD version J1.0+. EUROMOD is continually being improved and the results presented here may not match those that would be obtained with earlier or later versions of EUROMOD.

EUROMOD documentation: https://euromod-web.jrc.ec.europa.eu/resources/documentation
Glossary of EUROMOD: https://euromod-web.jrc.ec.europa.eu/resources/glossary
Policy parameters used in EUROMOD: https://euromod-web.jrc.ec.europa.eu/resources/parameters

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1. BASIC INFORMATION

General remark:

All amounts and qualitative information mentioned below correspond to the year 2021 (as of June 30th, when relevant), unless otherwise stipulated.

1.1 Basic information about the tax-benefit system

Table 1. Basic figures

	Pop. (m.)	Pop. < 15 (%)	Pop. ≥ 65 (%)	Life expectancy. (years) M / F	Fertility rate	Unemp Rate (not seasonally adjusted data)	GDP per head (PPS, EU27 =100)	Currency
2021	0.635	16.0	14.6	80.5 / 84.8	1.38	5.3	266	Euro
2022	0.645	15.9	14.8	80.8 / 85.2	1.31	4.6	256	Euro
2023	0.661	15.9	14.9	81.7 / 85.1	n/a	5.2	239	Euro
2024	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Euro

Source: Eurostat (2024),
https://ec.europa.eu/eurostat/databrowser/view/demo_pjangroup/default/table?lang=en
https://ec.europa.eu/eurostat/databrowser/view/demo_mlexpec/default/table?lang=en,
https://ec.europa.eu/eurostat/databrowser/view/demo_find/default/table?lang=en,
https://ec.europa.eu/eurostat/databrowser/view/une_rt_a/default/table?lang=en,
https://ec.europa.eu/eurostat/databrowser/view/prc_ppp_ind/default/table?lang=en.
(Compilation of this data with our own calculation)

Table 2. Tax-benefit system and government budget

	Total general government revenue[1] % of GDP	Total tax receipts[1] % of GDP	Total general government expenditure[1] % of GDP	Social protection [2] % of GDP
2021	43.4	38.4	42.9	21.6
2022	43.6	38.6	43.9	n/a
2023	n/a	n/a	n/a	n/a
2024	n/a	n/a	n/a	n/a

Sources: [1] OECD (2024), http://stats.oecd.org/Index.aspx (Dataset: Revenue Statistics - Comparative tables, Dataset: 1. Gross domestic product (GDP), Dataset: 12. Government deficit/surplus, revenue, expenditure and main aggregates);
[2] Eurostat (2024),
https://ec.europa.eu/eurostat/databrowser/view/spr_exp_sum/default/table?lang=enhttps://ec.europa.eu/eurostat/databrowser/view/spr_exp_sum/default/table?lang=en
(Compilation of this data with our own calculation)

Table 3. Social protection expenditure by function (as % of total social protection expenditure)

	Sickness/ health care	Disability	Old age	Survivors	Family/ children	Unemployment	Housing	Social exclusion
2021	26,9	11,4	33,4	6,7	14,8	4,0	0,4	2,4
2022	28,1	11,2	33,5	6,5	14,8	2,9	0,4	2,7
2023	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2024	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: IGSS (2024), https://igss.gouvernement.lu/dam-assets/publications/statistiques/protection-sociale/ps-2/PS-2-tab04.xls. (Compilation of this data with our own calculation)

Table 4. Taxation (as % of total tax receipts)

	Personal income tax	Corporate income tax	Social security contributions		Taxes on goods and services	Other taxes
			Employees*	Employers		
2021	26,3	11,8	16,2	11,3	23,8	10,6
2022	26,8	11,4	16,3	11,4	24,5	9,7
2023	n/a	n/a	n/a	n/a	n/a	n/a
2024	n/a	n/a	n/a	n/a	n/a	n/a

* Includes self-employed

Source: OECD (2024), http://stats.oecd.org/Index.aspx (Dataset: Revenue Statistics - Comparative tables)

- The tax-benefit system is largely a unified, national system. The main exception is property taxes *(impôt foncier)* which are levied at the local level *(commune)*.

- In Luxembourg, the "tax year" runs from 1 January to 31 December.

- State pension age in 2024 is 65. Early retirement pension *(pension de vieillesse anticipée)* from 60 years of age, on condition that 480 months of effective insurance can be proved or assimilated periods can be proved. From 57 years of age, on condition that 480 months of effective insurance can be proved.

- Minimum school leaving age in 2024 is 16. Since 2011, children in higher (tertiary) education are no longer eligible for child benefits. For income tax purposes, dependent children are defined as children aged under 21 on 1 January of the tax year or aged 21 years old and over who are still studying (entitled to family allowances).

- For benefit and tax purposes a lone parent is not legally married (single, divorced or widowed) to anyone and is a parent of a dependent child.

- Luxembourg has a system of compulsory joint taxation (income splitting) for married couples. Cohabiting couples under the "partenariat" law also have the possibility to be taxed jointly.   However, from fiscal year 2018, these married taxpayers can choose either a pure individual taxation, either an individual taxation with reallocation of income, either a collective taxation.

- The different income sources (commercial profit, agricultural and forestry profit, liberal profession profit, employee income, pension income, capital income, rental income and

miscellaneous income) are aggregated to compute the taxable income. Since 2006 Luxembourg has introduced a 10% withholding tax on income from certain savings products for residents of Luxembourg who are not tax residents in another state. This tax is in full discharge of a person's liability to tax on that income. The rate is 20% since 2017.

- Withholding taxes are levied on some forms of income: income from employment, pensions and some savings and investment incomes are subject to a pay-as-you-earn system. Other income must be declared in an annual tax return, submitted to the Luxembourg Tax Administration. In the case of couples with two earners, they have to fill a tax return.

- Wages and some benefits (pensions, minimum income…) are ordinarily indexed by 2.5% to price development by a sliding salary scale: nominal wages and social transfers are automatically adjusted upwards by 2.5% whenever the six-month moving average of the National Index of Consumer Prices (NICP) has increased by 2.5% since the preceding wage indexation. However, this system has been amended in mid-2022 by periods to regulate indexation (e.g. postponing or implementing it once a year only). On top of that, due to the high continuous inflation, 2023 was a special year with three indexations triggered in February, April (the one postponed from June 2022) and September. Another index is expected for last trimester of 2024.

- Social contributions and state benefits and pensions are usually assessed and delivered on a monthly basis.

- Consumption taxes consist of (1) VAT with four rates (normal, intermediate, reduced and super-reduced), (2) harmonised excises on tobacco, alcohol, and energy (gas and electrical), and (3) purchase of motor vehicles.

About the minimum (social) wage

- Unless exceptional and specific agreements possible in some circumstances, wages are submitted to minimum rates in Luxembourg: € 2,256.95/month for non-qualified wage-earners in 2021 for a full time job (40 hours/week, € 13.0460/hour with a basis of 173 hours/month), € 2,313.38/month in 2022€ 2,508.24/month in 2023, and € 2,570.93/month in 2024.

- Those basic amounts are increased by 20% (€ 3,085.11/month in 2024) for qualified workers and also modulated based on the age of the wage-earner: 80% of the basic amount if aged 17 or 18, and 75% of the basic amount if between 15- and 17-year-old.

- The basic amount is defined as the "Minimum Social Wage" (*salaire social minimum)*, hereafter "Minimum Wage" or "MW" and is also an important parameter for the tax-benefit system as a whole: several amounts are defined based on this MW: upper limit of the monthly old-age pension in the general scheme (5 times the MW), ceilings for social contributions, etc.

The policy parameters saved as constants in the model and their values for the most recent year are available at https://euromod-web.jrc.ec.europa.eu/resources/parameters.

1.2   Social Benefits

Birth grant *(Allocation de naissance)* totalling € 1,740.09 is available to women resident in Luxembourg, on the condition that both mother and child have the required medical examinations. The grant is not subject to taxation or to social contributions. Since 2006, the amount of this allowance is no longer linked to changes in prices.

Child-raising allowance *(Allocation d'éducation)* is a benefit aimed at recognising financially the upbringing activity. So, for a parent who educates a child under 2 years and either does not have a regular (professional or replacement) income or whose income, cumulated with that of the husband/wife, does not exceed € 5,657.70/month when educating one child; € 7,543.60/month when educating two children; € 9,429.50/month when educating three or more. The amount of the allowance is € 485.01 per month. The amount is due from the first day that follows either the end of the maternity leave or the end of the eighth week after the birth. The allowance stops on the first day of the month that follows the month during which the child reaches the age of 2. By derogation, the allowance is maintained in favour of any beneficiary who has educated twins or at least 3 children until one of the children is less than 4 years old. By derogation, the age limit for the payment of the allowance in the case of multiple births of more than 2 children is up-rated by 2 years per supplementary child. The allowance is not subject to taxation or to social contributions. Half the allowance is available in the case of part-time employment. Since 2006, the amount of this allowance is no longer linked to changes in prices.

This allocation was removed on 1 June 2015, but all persons who received this allowance continue to receive it.

Child benefit *(Allocations familiales)* is a universal scheme financed by tax. A child's personal rights are related to the residence. Each child brought up continuously in Luxembourg and with a legal residence there is entitled to this child benefit. The age limit is 18 years. For children in vocational training or further education or suffering from a serious infirmity, the age limit is 27 years old. Since 2019, the age limit for children in vocational training or further education is 25, whereas for children suffering from a serious infirmity, the age limit is as before (27). Since 2011 (from mid-2010 indeed, but implemented in EUROMOD from 2011 on), children in higher (tertiary) education are no longer eligible for child benefits. A reform of the higher education grant, complementary to the change in child benefits, has been implemented. The higher education grant was amended in 2014 again.

Up to 31 July 2016, the monthly amount is uniformly € 185.60 for one child, € 440.72 for two children, € 802.74 for three children and € 361.82 for each subsequent child. Child benefit does not vary with income. Child benefit varies with age: children aged 6 and more receive a supplement of € 16.17/month and children aged 12 and more receive a supplement of € 48.52/month. To this allowance is added the tax bonus (see *Section 2.4.2*) for children with a monthly amount of € 76.88 per child. The benefit is not subject to taxation nor to social contributions.

Since 1 August 2016, the child bonus for children is removed and two systems are applied. The changes compared to the previous system are mentioned below. Given the EUROMOD is here building on EU-SILC 2016 from the (income) years 2015 on, with no demographic change taken into account after 2015, those changes are not simulated in the model yet, out of the inclusion of the equivalent of the former tax bonus directly in child benefit.

For children born before 1 August 2016 or the families arrived at Luxembourg before 1 August 2016, the monthly amount for 2021 was € 265.00 for one child, € 594.48 for two children, € 1,033.38 for three children and € 438.70 for each subsequent child (the equivalent of former tax bonus included). In 2024, the values are respectively: € 299.86, € 672.62, € 1,169.01 and € 496 for each subsequent child.

For children born after 1 August 2016 or the families arrived at Luxembourg after 1 August 2016, the monthly amount was € 265 in 2021, € 285.41 in 2022, € 292.54 in 2023 and € 299.86 in 2024.

On top of this and in all cases, the supplement for age becomes € 20/month for children aged 6 and more (€ 21.57/month in 2022, € 22.11/month in 2023 and € 22.67/month in 2024) and €

50/month for children aged 12 and more (€ 53.85/month in 2022, € 55.19/month in 2023 and € 56.57/month in 2024).

Supplementary allowance *(Allocation spéciale supplémentaire)* of € 200/month for each child under 18, with an insufficiency or permanent reduction of at least 50% of physical or mental ability by comparison with that of a child of the same age. The allowance is neither subject to taxation nor to social contributions.

New school year allowance *(Allocation de rentrée scolaire)* aims to compensate the costs related to the new school year.
Since 1 August 2016, this allowance is fixed to € 115/year for a child of more than 6 years old and to € 235/year for a child of more than twelve years old. These amounts are per child.

The higher education grant and/or loan *(Bourse et/ou prêt d'études pour enseignement supérieur)* is mainly provided to students who are registered in a University or a College (tertiary education). In parallel, children in higher education are no longer eligible for benefits related to families.

The higher education grant/loan was reformed in the academic year 2014/2015 by the law of 24 July 2014 (hence later than 30 of June, but given the impact of the change, it is implemented in EUROMOD since 2014 already). It depends now on the composition and resources of the "household" to which the student belongs and it is composed of 4 parts:

i) a basic amount (€ 2,100/year in 2021, € 2,398/year in 2024),

ii) a mobility allowance in case the student is studying abroad and facing housing costs: € 2,572/year in 2021 (€ 2,982/year in 2024),

iii) a "social" complement depending on the household's income net of taxes: from € 3,990/year (€ 4,462/year in 2024) if a net income below the Minimum Social Wage for non-qualified workers, down to € 576/year (€ 738/year in 2024) for incomes below 4.5 times the Minimum Social Wage, see *Section 2.4.3* for details) and

iv) a family supplement if 2 children or more are involved in higher education: € 512/year per student (€ 548/year in 2024). The "household" to be considered is derived from administrative data and is basically composed of the fiscal unit, including children benefitting from derived rights in terms of health insurance.

Since 2020, the amounts of all scholarships have been indexed according to the sliding salary scale.

The allowance is neither subject to taxation nor to social contributions.

The guaranteed minimum income *(Revenu minimum garanti)* was created by the law of 29 April 1999, which modified the law of July 1986, and was discontinued on 31 December 2018, when it was replaced by the Social Inclusion Income benefit. The principles of this benefit are to fight against social exclusion and to ensure sufficient means for a decent standard of living and measures of professional and social integration. The guaranteed minimum income can be either an integration allowance *(indemnité d'insertion)* or a supplementary allowance aiming at compensating the difference between the highest amounts of the guaranteed minimum income and the sum of the household resources. The eligibility conditions concern:

   i)   residence (persons resident in Luxembourg territory and having resided in the country for at least 5 years during the last 20 years. This residence condition is not required for EU or EEA citizens or for refugees);
   ii)   age (with effect from 25 years; exceptions for persons unable to work, those who are looking after a child or an invalid.);

iii)   willingness to work (to be ready to participate in active measures);
iv)   not to have abandoned or reduced work of their own free will, without giving important and real justifications or should not have been dismissed for serious reasons.

The reference minima have been fixed through political decision in comparison with the social minimum wage *(salaire social minimum)* and pension minima. The domestic unit for the calculation of resources is defined by the "*de facto*" community of all the persons living in the same common household, obviously disposing of a common budget and unable to provide evidence that they live elsewhere. The resources taken into account are the entire gross revenue of the household, possessions and replacement or supplementary social security benefits (excluding family allowances, maternity benefits, long-term care benefits and up to the guaranteed minimum income for a person living alone for the professional income of children less than 25 years old). However, to avoid inactivity traps, up to 30% of the reference minima are disregarded from the professional incomes and replacement incomes to compute the resources.

The guaranteed minimum income is fixed in 2018 at € 1,401.18/month for a person living alone or for the first person of the domestic unit (base amount). For the second adult, the base amount is uprated by 50% of € 1,401.18/month (€ 700.59 /month). For each subsequent adult, the base amount is uprated by € 400.93/month. For each child, the base amount is uprated by € 127.37/month.

Before 2016, when a rent is due for an occupied flat, the guaranteed minimum income is increased by the difference between the rent paid and the amount corresponding to 10% of the guaranteed minimum income (*revenu minimum garanti*). The increase is limited to a maximum of € 123.95/month. Since 2016, this allowance is becoming a separate benefit (or is completed) under specific circumstances (see "rent allowance" below).

The guaranteed minimum income is subject to taxation and to social contributions for health care and long-term care insurance.

The social inclusion income (*Revenu social d'inclusion*) replaced the guaranteed minimum income on 1st January 2019. This new benefit focuses on four priority areas:

i)   promote a social inclusion approach;
ii)   establish a coherent system between stabilization, social activation and reintegration policies;
iii)   act against the poverty of children and lone parent families;
iv)   lead administrative simplification.

It still has two components: the *inclusion allowance* which replaces the supplementary allowance and the *activation allowance* instead of the integration allowance.

Since 2019, for social assistance a dependent child is defined as a person younger than 25 years old.

The social inclusion income is fixed in 2024 at € 1,802.45/month for a person living alone or for the first person of the domestic unit (base amount). For each subsequent adult, the base amount is uprated by € 901.94/month. If there are children, the allowance is increased by € 135.34/month for the household and by € 280.03/month for each child, with an increase of € 82.74/month per child if living in a single-parent family.

The immunization mechanism obeys new rules that also aim to eliminate inactivity traps but also to enhance the income generated by increased activity. For this, an immunization of 25% is operated directly on the gross income concerned by the immunization and no longer on the scale

due to the domestic community. Consequently, an increase in activity is no longer accompanied by an equivalent decrease in the inclusion allowance (as it was the case with the RMG).

The income for seriously disabled persons *(Revenu pour personnes gravement handicapées)* was created by the law of 12 September 2003. Persons entitled to this benefit must be at least 18 years old, must present a diminution of the ability to work by 30% due to physical, mental, sensorial or psychological disability; the disability has to be obtained before the age of 65. The state of health of the person must be at such a level that it is impossible to adapt a workplace in the ordinary or the protected environment to his needs. The person must be allowed to live in Luxembourg and must live there. Residents from a non-Member state have to show a 5-year long legal residence permit during the last 20 years. The income for a seriously disabled person is fixed at € 1544.98/month in 2021 (€ 1,803.87/month in 2024). Up to 30% of the reference minima are disregarded from the professional incomes and replacement incomes to compute the resources. The income for seriously disabled persons is subject to taxation and to social contributions for health care and long-term care insurance.

The expensive life allowance *(Allocation de vie chère)* replaced the formerly implemented heating allowance in 2009. This allowance is a means-tested allowance. To be eligible in 2021, the global annual income must not exceed: € 26,445.24/year for a person living alone (€ 30,939.53/year in 2024), € 39,667.8/year for a two-person family (€ 46,409.29/year in 2024), € 47,601.36/year for a three-person family (€ 55,691.15/year in 2024), and € 7,933.56//year for each additional person in the family (€ 9,281.86/year in 2024).

In 2021, the amount of the expensive life allowance which was € 1,452/year for a person living alone, € 1,815/year for a two-person family, € 2,178/year for a three-person family, € 2,541/year for a four-person family and € 2,904/year for a five-person or more family. Since 2022 the benefit remains the same: € 1,652/year for a person living alone, € 2,065/year for a two-person family, € 2,478 for a three-person family, € 2,891 for a four-person family and € 3,304 for a five-person or more family.

The allowance is neither subject to taxation nor to social contributions.

The energy bonus (*Prime énergie*) has been introduced in 2022 for low-income households. This bonus varies between a minimum of €200 and €400 depending on household income and composition. The maximum income limits for eligible are those of the expensive life allowance, increased by 25%: € 33,882.56/year for a person living alone (€ 38,674.41/year in 2024), € 50,823.85/year for a two-person family (€ 58,011.61/year in 2024), € 60,988.63/year for a three-person family (€ 69,613.93/year in 2024), and € 10,164.77/year for each additional person in the family (€ 11,602.32/year in 2024).

Since 2022, the benefit amount is € 200/year for a person living alone, € 250/year for a two-person family, € 300/year for a three-person family, € 350/year for a four-person family and € 400/year for a five-person or more family.

The rent allowance *(Subvention de loyer)* was created by the law of 9 December 2015, which modified the laws of February 1979, April 1999 and September 2006. This allowance is replacing since 2016 the supplement for rental costs embedded in the "guaranteed minimum income" (see above). "Households" whose "*total income*" is below a threshold and facing rental costs higher than a "*reference rent*" may be entitled to a rent allowance. The rental costs must be related to the private sector exclusively. The income threshold, the reference rent and the maximum rent allowance to be considered are all dependent on the household composition.

The total income takes into account:

- the last known *income after tax* as defined in the law about personal income taxation (Art. 10),

- the *parental leave benefit*;

- the *maintenance payments* received and

- the *accident permanent benefit*.

This is the result of a reform in 2018 reducing the number of different income source to be taken into account, in order to enlarge the population potentially covered.

The "household" to be considered is similar to the "domestic unit" defined at the level of the *social inclusion income,* which involves all members of the residence household. A member is considered as "dependent child" if fulfilling conditions in relation with child benefits or benefitting from derived rights in terms of health insurance.

The allowance is neither subject to taxation nor to social contributions.

Old-age pension from the general scheme *(Pension de vieillesse du régime général).* A compulsory social insurance scheme financed by contributions with a participation of the State budget for the active population (employees and self-employed) with benefits depending on the duration of the affiliation (flat-rate) and on contributions (earnings-related). The legal retirement age is 65 years but an early retirement pension *(pension de vieillesse anticipée)* is possible from 60 years of age, on condition that 480 months of effective insurance can be proved or assimilated periods can be proved, and from 57 years of age, on condition that 480 months of effective insurance can be proved. The pension comprises two parts:

- A flat-rate pension *(majoration forfaitaire)* which depends on the number of insurance years of 1/40 per year (max. 40) and on a ratio of a so-called "reference amount" (€ 2,085 per year, at the index number 100 base 1984) which gradually increases (24.513% in 2021 and 24.850% in 2024). It is adjusted using the cost of living index (8.3476 in 2021 and 9.4443 in 2024) and a revaluation factor (1.462 in 2021 and 1.520 in 2024).

- An income-related pension part *(majoration proportionnelle)* obtained by multiplying the total earnings by a rate of increase (which varies according to the year of retirement) by the sum of wages. It is also adjusted using the cost of living index and the revaluation factor.

The rate decrease through time from 1.85% before 2013 down to 1.60% in 2052 (1.794% in 2021 and 1.775% in 2024). A staggered supplements *(majoration échelonnée)* can be added if the sum of the age and periods of compulsory insurance exceeds a threshold that changes according to the year of retirement (94 years in 2021 and 95 years in 2024) : the rate is increased for each supplement year in activity (0.014%/year in 2021 and 0.015%/year in 2024). The maximum stagger supplement is 2.05%.

No old-age pension can be less than 90% of the reference amount (€ 1, 876.50/month) when the insured has covered a 40-year period of insurance periods. This amount is reduced by 1/40th per missing year between the 20th and the 39th year. To be eligible for the minimum pension, there must be a minimum period of 20 years of insurance periods, including 10 years of compulsory insurance, continued, optional or purchased.
The maximum amount is 5/6th of five times the reference amount : € 8,687.50/month.

An allowance at the end of the year *(allocation de fin d'année)* is added if the overall contribution rate for pension insurance does not exceed 24%. The allowance equals € 1.67 for each insurance year (€ 815.28/year in 2021 and € 958.92/year in 2024, in the case of a complete career of 40 years; otherwise proportional reduction).

The pension is subject to taxation and to social contributions for health care and long-term care.
Source: https://cnap.public.lu/fr/pensions/pension-vieillesse-65.html and
https://cnap.public.lu/dam-assets/brochures/brochure-vieillesse-012024.pdf

Survival pension from the general scheme *(Pension de survie du régime général).* A compulsory social insurance scheme financed by contributions with a participation of the State budget for the active population (employees and self-employed) with benefits depending on the pension (flat-rate and earnings-related) of the deceased person. The pension comprises two parts: a flat-rate part depending on the number of insurance years of 1/40 per year (max. 40) and an income- (and contributions-) related part. The flat-rate pension part *(majorations forfaitaires)* and the special flat-rate supplements *(majorations forfaitaires spéciales)* equal the total to which the insured has or would have been entitled. The income-related pension part *(majorations proportionnelles)* and the special income-related supplements *(majorations proportionnelles spéciales)* equal ¾ of the benefit to which the insured has or would have been entitled. There is an allowance at the end of the year *(allocation de fin d'année)* of € 815.28/year in 2021 (€ 958.92/year in 2024) in the case of a complete career of 40 years; otherwise proportional reduction. The pension is subject to taxation and to social contributions for health care and long-term care.
Source: https://cnap.public.lu/fr/pensions/pension-survie/pension-survie1.html

Invalidity pension from the general scheme *(Pension d'invalidité du régime général).* A compulsory social insurance scheme financed by contributions with a participation of the State budget for the active population (employees and self-employed) with benefits depending on the duration of the affiliation (flat-rate) and on contributions (earnings-related). The pension comprises two parts: a flat-rate part depending on the number of insurance years of 1/40 per year (max. 40) and an income- (and contributions-) related part. The flat-rate pension part *(majorations forfaitaires)* is set to € 519.79/month for 40 years' insurance in 2021 (€ 619.82/month in 2024); income-related pension part *(majorations proportionnelles)* is set to 1.794% of total wage taken into account in 2021 (1.775% in 2024). For invalidity before age of 55, special flat-rate supplements *(majorations forfaitaires spéciales)* of 1/40 for each year between commencement of entitlement to pension and age 65 (max. 40 years) are applied as well as special income-related supplements *(majorations proportionnelles spéciales)* for years remaining from commencement of entitlement until age 55. The rate of the supplement is 1.794% (1.775% in 2024) of average salary gained between age 25 and the year of cessation. The pension is subject to taxation and to social contributions for health care and long-term care.
Source: https://cnap.public.lu/fr/pensions/pension-invalidite.html

Old-age pension from the statutory scheme *(Pension de vieillesse du régime statutaire).* This scheme concerns civil servants and employees of the State administration, civil servants and employees of the Communes, employees of the CFL (train company) and employees of public institutions and institutions of public interest. One must distinguish the transitory scheme that concerns persons in activity or retired as of 31 December 1998 from the special scheme that concerns persons who started to work after 31 December 1998.

For the transitory scheme, a right to old-age pension is open in the following situations: in the case of resignation from the age of 57 and a work duration of 40 years; in the case of resignation from the age of 60 and a work duration of 30 years; in the case of resignation at the age of 65 and a work duration of 10 years. The amount of the pension for the transitory scheme is calculated on the basis of the last wage: 5/6 of the last wage but for the years worked after 1 January 1999 the replacement rate will be progressively taken back to 72%. Nevertheless, civil servants with a complete career (35 or 40 years) at the age of the anticipated retirement (55 or 60 years) can increase their pension by 2.31%/supplement per year worked. The amount of the pension for the

special scheme is calculated as for the general scheme except that there is no upper limit. There is an allowance at the end of the year (*allocation de fin d'année*) of € 815.28/year in 2021 (€ 958.92/year in 2024) in the case of a complete career of 40 years; otherwise proportional reduction. The pension is subject to taxation and to social contributions for health care and long-term care.

For the persons who started to work after 31 December 1998, a special scheme has been defined which is based on the characteristics of the general scheme described earlier.

Survival pension from the statutory scheme *(Pension de survie du régime statutaire).* The conditions to be eligible for a survival pension from the statutory scheme are similar to those foreseen for the general scheme and the reversion rates are also similar to those foreseen for the general scheme.

Invalidity pension from the statutory scheme *(Pension d'invalidité du régime statutaire).* The conditions to be eligible and the calculation of the pension for an invalidity pension survival pension from the statutory scheme are similar to those foreseen for the general scheme.

Unemployment benefit *(Indemnité de chômage).* An unemployment allowance scheme financed by the State with benefits related to remuneration previously earned. The main conditions for being eligible for the unemployment benefit are the following: to be involuntarily unemployed, work not permitted, unless part-time and with anti-accumulation rules applying, to be fit to work, to be available for work, to be aged between 16 and 64, to have registered for employment, to accept suitable employment or an active measure offered, to be resident in Luxembourg when the redundancy occurs; claim for the benefit within 2 weeks. The qualifying period for this benefit is at least 26 weeks of employment during the last year.

The benefit is determined by the salary earned before unemployment starts. The earnings taken are the gross earnings during the 3 months which precede unemployment. The allowance cannot exceed 2.5 times the minimum wage (€ 5,504.83/month in 2021, € 6,427.33/month in 2024) or 2 times the minimum wage (€ 4,403.86/month in 2021, € 5,141.86/month in 2024) in the case that the unemployment exceeds 182 days in a period of 12 months. In case of complementary benefit (when unemployment benefit is allowed after the 365 days of the normal duration of compensation) the ceiling is fixed at 1.5 times the minimum wage (€ 3,302.90/month in 2021, € 3,856.40/month in 2024). The rate of the benefit is 80% of reference earnings, increasing to 85% of earnings if there are dependent children. The duration of payment is 365 calendar days during a reference period of 24 months (without exceeding the duration of working days over the reference period); 182 extra calendar days for persons who are particularly "difficult" to place. For unemployed of 50 years and more, prolongation of 12, 9 or 6 months respectively if 30, 25 or 20 years of affiliation to pension. Loss of allowance for 7 days (30 days if repeated) if the unemployed person refuses to report to the employment office. Accumulation with other social security benefits is not possible. If income from a gainful professional activity exceeds 10% of the maximum threshold of the provided compensation, the unemployment benefit is reduced by the amount exceeding the provided ceiling.

The benefit is subject to taxation and to social contributions for health care, long-term care insurance and pension insurance.

Pre-retirement benefit (Indemnité de préretraite). Pre-retirement compensation *(indemnité de préretraite)* permitting enterprises to dismiss structurally redundant workers and to re-equilibrate the age structure among the workers within an enterprise. Early retirement measures are also applied in the case of night- and shift-work. The indemnity is paid by employers and partially reimbursed by the employment fund.

The eligibility conditions are the following: age 57, and having fulfilled in the 3 following years the conditions for an early retirement pension (*pension de vieillesse anticipée*), and fulfilling certain conditions related to the work record. The pre-retired must not exercise any professional activity other than insignificant or occasional activities.

The rates of the benefit are a percentage of previous gross earnings, as follows: 85% during 1st 12 months, 80% during 2nd 12 months, 75% during 3rd 12 months.

The benefit is subject to taxation and to social contributions for health care, long-term care insurance and pension insurance.

Sickness benefit *(Indemnité pécuniaire de maladie).* Compulsory social insurance scheme financed by contributions for all active population (employees and self-employed) with earnings-related benefits. The amount of the benefit is the full salary which the insured person would have earned if he had continued to work. The duration of the benefit is maximum 52 weeks. Payment ends if an invalidity pension *(pension d'invalidité)* is granted.

The benefit is subject to taxation and to social contributions for health care, long-term care insurance and pension insurance.

Maternity cash benefit *(Indemnité de condgé de maternité).* Compulsory social insurance scheme financed by contributions for the active population (employees and self-employed, given that civil servants receive ordinary wage during that period) and the recipients of a social security benefit. Maternity benefit *(prestations en espèces de maternité)*: 100% of the salary the insured received during the maternity leave. Maternity cash benefits are subject to taxation and to social contributions for health care, long-term care insurance and pension insurance.

The benefit is subject to taxation and to social contributions for health care, long-term care insurance and pension insurance.

Paternity leave benefit *(Indemnité de congé de paternité).*

The paternity leave is an extraordinary 10 days leave granted to fathers (or any person recognized as a second parent) after the birth/adoption of a child. The employer pays the full salary, which will be reimbursed by the state from the 3rd day onwards.
This leave is available for all employed and self-employed and the father can dispose of it at his convenience within 2 months following the event if the employer agrees (otherwise immediately after).
This leave is triggered for each child in the case of a multiple birth.

Parental leave benefit *(Indemnité pour congé parental).* Both parents are entitled to take parental leave up to the child's fifth birthday providing they have worked for their employer, without a break, for at least one year.

Since 1 December 2016, there is a new system for the parental leave. This new system aims at making it more flexible, more attractive financially and accessible, for the largest number of people and in particular for the fathers.

The parents can choose to stop working:
- A full-time parental leave of 4 or 6 months
- A part-time parental leave of 8 or 12 months.

The parental leave can also be "split", that is a full-time person can reduce its activity at the rate of:
- 20 % a week (1 day a week) during a period of 20 months or;
- Four periods of one month for a maximum period of 20 months.

It is necessary to obtain the agreement of the employer to benefit from the flexible parental leave.

The parental leave benefit becomes a "replacement income", which is calculated on the basis of the applicant's income.

For a full-time, this income corresponds at least to the monthly minimum wage: € 2,201.93 in 2021, € 2,313.38 in 2022, € 2,508.24 in 2023 and € 2,570.93 in 2024; and is limited at 3,669.88 in 2021 and € 3,855.63 in 2022, € 4,180.39 in 2023 and € 4,284.88 in 2024.

Long-term care cash benefit *(Prestation en espèce en cas de dépendance).* Compulsory long-term care social insurance financed by a special contribution from the insured and by the State, covering all persons bound by a sickness insurance, with in kind and cash benefits. Benefits in kind can be combined or replaced by cash benefits. Cash benefits remunerate persons who are not working on behalf of a professional services network. The amount of the benefits totals half of the value of the benefit in kind. Benefit amount per hour: € 25. Maximum cash benefits amount per week: € 262.50.

Benefits are not subject to taxation or to social contributions.

Care allowance *(Allocation de soins).* The law concerning this allowance has been abrogated, with effect from 1 January 1999, by the law concerning long-term care insurance. However, recipients of this allowance at 31 December 1998 continue to receive this allowance. No allowance has been paid since 2016.

Seriously disabled persons allowance *(Allocation spéciale pour personnes handicapées).* The law concerning this allowance has been abrogated, with effect from 1 January 1999, by the law concerning long-term care insurance. However, recipients of this allowance at 31 December 1998 continue to receive this allowance. But as soon as long-term care insurance is granted, the seriously disabled persons allowance is cancelled. In 2021 the amount of this allowance was € 744.94/month (€ 842.81/month in 2024).

- *Scope and scale*

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

	2021	2022	2023	2024
Maternity allowance	0	0	n/a	n/a
Birth grant	1.19	1,17	n/a	n/a
Child-raising allowance	0	0	n/a	n/a
Child benefit	19.26	18,97	n/a	n/a
Supplementary allowance	n/a	n/a	n/a	n/a
New school year allowance	12.48	12,33	n/a	n/a
Seriously disabled persons benefit	0.09	0,07	n/a	n/a
Social assistance (REVIS)	3.53	3,39	n/a	n/a
Expensive life allowance	3.48	n/a	n/a	n/a
Higher education grants	3,34	3,26	n/a	n/a
Survival pension from general scheme	3,85	3,77	n/a	n/a

Survival pension from statutory scheme	3,85	3,77	n/a	n/a
Invalidity pension from statutory scheme	0,18	0,17	n/a	n/a
Unemployment benefit	2,90	2,21	n/a	n/a
Pre-retirement benefit	0,13	0,14	n/a	n/a
Sickness benefit	n/a	n/a	n/a	n/a
Benefit for family reasons	n/a	n/a	n/a	n/a
Maternity cash benefit	0,84	0,80	n/a	n/a
Parental leave benefit	1,00	1,03	n/a	n/a
Long-term care cash benefit, care allowance and heavily handicapped person benefit	1,09	1,09	n/a	n/a
Permanent accident benefit	0,95	0,91	n/a	n/a

Notes: The % concerns only resident recipients. Recipients living abroad are excluded from the table.

Sources: www.isog.public.lu , STATEC, Ministry of Labor and Employment, SNAS, ADEM and own computations from IGSS Data warehouse

Table 6. Social benefits: expenditure (resident recipients only)

	2021	**2022**	**2023**	**2024**
Annual expenditure (in millions €)	8 063,97	8 661,83	n/a	n/a
as % of total expenditure				
Birth Grant	0,16	0,15	n/a	n/a
Child-raising/Education Allowance	0	0	n/a	n/a
Child benefit	6,04	5,99	n/a	n/a
Boni for children	0	0	n/a	n/a
Supplementary allowance	0,04	0,04	n/a	n/a
New School Year Allowance	0,21	0,19	n/a	n/a
Seriously disabled persons benefit	0,06	0,05	n/a	n/a
Social assistance (REVIS)	2,54	2,32	n/a	n/a
Income for seriously disabled persons	0,65	0,62	n/a	n/a
Cost of living allowance	0,54	0,70	n/a	n/a
Higher education grants	1,38	1,41	n/a	n/a
Old-age pension from general and statutory schemes	50,14	49,48	n/a	n/a
Survival pension form general and statutory schemes	9,90	9,50	n/a	n/a
Invalidity pension form general scheme	3,14	2,99	n/a	n/a
Invalidity pension from statutory scheme	0,77	0,71	n/a	n/a
Unemployment benefit	3,27	2,70	n/a	n/a
Pre-retirement benefit	0,62	0,74	n/a	n/a
Sickness benefit	1,67	1,76	n/a	n/a
Benefit for family reasons	n/a	n/a	n/a	n/a
Maternity cash benefit	1,65	1,44	n/a	n/a
Parental leave benefit	1,42	1,49	n/a	n/a
Long-term care cash benefit and Care allowance	0,69	0,67	n/a	n/a

Sources: www.isog.public.lu, STATEC, Ministry of Labor and Employment, SNAS, ADEM and own computations from IGSS Data warehouse

1.3   Social contributions

Social contribution for health care - cash benefits (*Cotisations sociales pour soins de santé – prestations en espèce*) finance sickness and maternity cash benefits. All employees from the private sector are entitled to these social contributions. Civil servants who benefit from continuation of the salary in the case of sickness or maternity do not have to pay this social contribution. The contribution basis is composed of the professional income, i.e., the gross pay including all the advantages even if they are in kind but excluding occasional allowances and bonuses. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

Since 2009, a uniform status (*statut unique*) has been introduced for blue- and white-collar workers. Since the "statut unique", both white-collar and blue-collar workers continue to receive pay - imposed on the employer for the month in which the sickness occurs and for the following three months.

The employer's contribution rate involves a fix part (0.25% for all employers since 2009) and a variable part funding the so-called *Mutualité des employeurs* and depending on the "class of risk" regarding absenteeism within the firm. The corresponding variable part of rate was comprised 0.53% and 2.88% in 2021 (0.01% and 1.36% in 2024). However, given lack of data and for simplicity reasons, we have implemented an average variable rate only, changing through time: 1.71 in 2021, 1.79 in 2022, 1.78 in 2023 and 0.69 in 2024.
Sources: https://mde.public.lu/fr/affiliation-financement/financement.html

Social contribution for health care - benefits in kind (*Cotisations sociales pour soins de santé-prestations en nature*). The contribution basis is composed of the professional incomes defined above, including occasional allowances and bonuses, pensions and all replacement incomes subject to social contributions. The contribution rate is 5.6% in total since 2016: 2.8% for the insured and 2.8% for the employer. For the contribution basis there is a ceiling that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

Social contribution for long-term care insurance (*Cotisations sociales pour l'assurance dépendance*). The contribution basis is composed of professional incomes, replacement incomes and wealth incomes. The contribution rate amounts to 1.40 % for employees (there is no employer contribution). No maximum is applied to the contribution basis. The monthly contribution basis is reduced by 25% of the minimum wage for persons receiving a wage or a replacement income from the social security.

Social contribution for pension insurance (*Cotisations sociales pour pension*). The contribution basis is composed of professional incomes or the following replacement incomes (unemployment benefit, sickness benefit, maternity benefit, parental leave benefit). The contribution rate is 24% in total: 8% for the insured, 8% for the employer and 8% for the State. For the contribution basis there is a ceiling (except for the civil servants) that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

Employer social contributions for accident *(Cotisations sociales de l'assurance accident)*. These contributions are paid exclusively by the employer. Since 2011 to 2018, all industrial firms are ranged in 22 risk classes. The rate is uniform with a level of 1.00% in 2017 and 0.90% in 2018. For the contribution basis there is a minimum that corresponds in principle to the minimum wage. In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. There is also a ceiling that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024). Concerning the agricultural or forestry sector, the contributions are calculated according to the size of the land, the vineyard or the forest.

Since 2019, there are 17 risk classes according to the main activity and a bonus-penalty system varies the rate. A bonus-penalty factor (BPF) is calculated by comparing the contributor to the other contributors from the same class and depending on the result, the rate varies according to 5 values. In 2021, these values were:
- 0.675% for a BPF less than 0.9 (0.595% for a BPF less than 0.85 in 2024),
- 0.75% for a BPF between 0.9 and 1.0 (0.70% for a BPF between 0.85 and 1.0 in 2024),
- 0.825% for a BPF between 1.0 and 1.1 (0.77% in 2024),
- 0.975% for a BPF between 1.1 and 1.3 (0.91% in 2024),
- 1.125% for a BPF greater than 1.3 (1.05% in 2024).

Social contributions for family allowances (*Cotisations sociales pour les prestations familiales*). These contributions are paid neither by the employees nor by the employers but by the State.

- *Scope and scale*

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

	2021	2022	2023	2024
Social contributions				
Social contribution health care - cash benefits	34,33	n/a	n/a	n/a
Social contribution health care - benefits in kind	60,57	n/a	n/a	n/a
Social contribution long-term care insurance	60,57	n/a	n/a	n/a
Social contribution for pension insurance	41,30	41,37	n/a	n/a
Social contribution for accident insurance	38,87	39,27	n/a	n/a
Social contribution for family allowances	n/a	n/a	n/a	n/a

Notes: The % concern only resident contributors.
Sources: www.isog.public.lu, STATEC, Ministry of Labor and Employment, SNAS, ADEM and own computations from IGSS Data warehouse.

Table 8. Social contributions: revenue

	2021	2022	2023	2024
Social contributions (millions of €)	4 174,16	4 496,38	n/a	n/a
as % of total revenue				
Social contribution health care - Total	27,56	27,49	*n/a*	*n/a*
Social contribution health care - cash benefits (employee and employer)	1,39	1,39	n/a	n/a
Social contribution health care - benefits in kind (employee and employer)	26,17	26,10	n/a	n/a
Social contribution long-term care insurance (employee and employer)	6,48	6,54	n/a	n/a
Social contribution for pension insurance (employee and employer)	62,19	62,17	n/a	n/a
Social contribution for accident insurance (employer)	2,79	2,82	n/a	n/a
Social contribution for family allowances (employer and self-employed)	0,98	0,97	n/a	n/a

Notes: The % and amounts concern only resident contributors.
Sources: www.isog.public.lu, STATEC, Ministry of Labor and Employment, SNAS, ADEM and own computations from IGSS Data warehouse.

1.4   Taxes

Personal income tax (*Impôt sur le revenu des personnes physiques*): taxed jointly at the family units. The family unit is defined by the marriage or the legal consensual union and children less than 18 years old on 1 January of the tax year. However, wages received by a child less than 18 years old are not covered by the joint taxation.

Tax payers are granted a tax class according to their family status. Basically, married taxpayers (even in the case of a wedding or divorce during the calendar year), widowed persons for the 3 years following the year in which they became widowed, divorced or separated individuals for the 3 years following the year of divorce or separation and civil partners who live together for a full tax year and elect to file jointly, belong to tax class 2.
Widowed persons not included in tax class 2, individuals aged at least 65 on 1 January and single parents belong to tax class 1a.
All other individuals belong to tax class 1.
For tax class purposes, a child is less than 21 years old on 1 January of the tax year or 21 years old and more continuing to study.
In 2018, married taxpayers could choose between several systems which distinguish between residents and non-residents (including some reallocation of income between spouses before taxation), but for reasons emphasized in *Section 2.6*, the collective taxation (as before 2018) remains the best choice for resident population (the one considered in EUROMOD).

In Luxembourg, the tax year corresponds to the calendar year. Income tax rates are progressive. They vary from 0% to 40% (19 brackets) in 2016, up to 42% since 2017 (23 tax brackets).
Since 2011, a surcharge for the unemployment fund is applied. Since 2013, it is either 7% or 9%, depending on the level and tax class of income.
As from 1 January 2015, a new tax is introduced on the income of individuals (residents and non-residents), called "budget balancing temporary tax". The rate of this tax is fixed at 0.5%. The tax base is constituted by the professional income, the replacement income and the income from capital. This contribution was removed in 2017.

There are eight categories of taxable income which, added together over the year, determine the total taxable income:
- Commercial/business profits,
- Profits from agriculture and forestry,
- Profits derived from self-employed professions (*profession libérale*),
- Net income from employment,
- Net income from pensions and/or annuities,
- Net income from investments (movable capital),
- Net income from rental of property,
- Other net income (including capital gains).
Withholding taxes are levied on some of the incomes above. Income from employment, pensions and some savings and investment incomes are subject to a pay-as-you-earn system. Other income must be declared in an annual tax return, submitted to the Luxembourg Tax Administration.
The income subject to tax according to the tax schedule (*revenu imposable ajusté*) is equal to the net income of the different categories of incomes after deduction of operating expenses, accusation costs, exemptions and several deductions.
The salary of a child less than 18 years old is taxed individually but parents are eligible to a tax reduction for this child. All other types of income received by a child less than 18 years old are added together with the parent's incomes.
Children aged 18 to 21 years are taxed individually but parents are eligible to a tax reduction for children.

Property tax (*Impôt foncier*): the property tax is a communal tax that applies to all the constructed or non-constructed real properties. The amount of this tax is very low.

Consumption taxes (*Taxe sur la consommation*)**:**

Value Added Tax (*Taxe sur la valeur ajoutée*): a normal rate at 17% (lowest standard VAT rate in the European Union) applies for all goods and services for which no exemption, an intermediate rate at 14% (e.g. some types of wine, certain types of fuel and other means of energy, advertising brochures, management and custody of credit guarantees), a reduced rate at 8% (e.g. some types of energy (such as electricity and gas), plants and other floricultural products, bicycle repair services, shoes and other leather products, cleaning, hairdressing) and a super-reduced rate at 3% (e.g. ood products, pharmaceuticals, books, magazines and newspapers, children's clothing and shoes, restaurant services, passenger transport and admission to cultural events).

Excise duties *(Accises et taxes assimilées*): These taxes are levied on several products, such as mineral oils, tobacco, various alcoholic beverages, packaging. Alcohol, tobacco, and energy are EU-harmonized taxes. The first two are ad-valorem, while excises on energy are typically ad-quantum.

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

- *Scope and scale*

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

No information is available with which to estimate taxpayers as % of the population.

Table 10. Taxes: revenue

	2021	**2022**	**2023**	**2024**
Annual revenue (millions of €)	20 146	21 643	n.a.	n.a.
Direct taxes				
Taxes on income and profits, on Individuals (then out of corporate)	7 318	8 028	n.a.	n.a.
Personal income tax	n.a.	n.a.	n.a.	n.a.
Solidarity income tax increase for persons	n.a.	n.a.	n.a.	n.a.
Withholding personal tax	n.a.	n.a.	n.a.	n.a.
Recurrent taxes on immovable property	41	44	n.a.	n.a.
Indirect taxes				
VAT	4 282	4 989	n.a.	n.a.
Excise duties	1 787	1 811	n.a.	n.a.

Notes: The annual revenue numbers reported in the first line are exclusive of revenue from social insurance contributions. The numbers reported in Table 10 include tax paid by non-residents.
Source: OECD Revenue Statistics 1965-2021 – details of tax revenue, Luxembourg

2. SIMULATION OF TAXES, SOCIAL INSURANCE CONTRIBUTIONS AND BENEFITS IN EUROMOD

General remark:

All amounts and qualitative information mentioned below correspond to the year 2021 (as on June 30th, when relevant), unless otherwise stipulated.

2.1 Scope of simulation

Not all benefits and taxes are simulated in EUROMOD. Indirect taxes such as VAT and excise duties that do not affect net disposable income are currently outside the scope of EUROMOD. The same is true for services in-kind. These are neither simulated nor included among the output variables. Other benefits and taxes may not be simulated due to lack of information in the input dataset. These are included in the final output dataset but the rules governing them may not be altered by the simulation. Tables 11 and 12 classify all the main tax-benefit instruments into one of these three groups and provide a brief explanation as to why the instrument is not fully simulated if this is the case. Information is provided regarding the treatment of all tax and benefit instruments in each policy year that has been implemented.

Table 11. Simulation of benefits in EUROMOD [2021-2024]

Benefit	Variable	2021	2022	2023	2024	Comments
Care allowance	bca01	I	I	I	I	No data on the level of dependency
Long-term care cash benefit	bca02	I	I	I	I	No data on the level of dependency
Child credit	bch00_s	S	S	S	S	Dropped since 1st August 2016
New school year allowance	bched01_s	S	S	S	S	
Child-raising Allowance	bched04_s	I	I	I	I	Copied from input up to 2014 (No precise information on the contribution history before the child is 2 years old). Benefit dropped since 1st June 2015, but allocations already "engaged" are maintained => hence still copied in 2015 and 2016, dropped afterwards
Allowance for looked after children in families	bched05	I	I	I	I	Target cannot be identified
Higher education grants	bed_s	S	S	S	S	
Seriously disabled persons benefit	bdisv	I	I	I	I	No information on disability
Parental leave benefit	bfapl	I	I	I	I	No data on the intention to take the parental leave
Child benefit	bfauc_s	S	S	S	S	
Sickness benefit	bhl	I	I	I	I	No data on contribution history and on sickness
Rent allowance	bsaho_s	S	S	S	S	Part of Guaranteed minimum income

Rent allowance	bho_s	S	S	S	S	Introduced in 2016
Birth grant	bmaba	I	I	I	I	No information on medical examinations
Maternity cash benefit	bmawk	I	I	I	I	No data on contribution history
Guaranteed minimum income	bsacm_s	S	S	S	S	Full take-up considered
Heating allowance / Expensive life allowance	bsaht_s	PS	PS	PS	PS	Energy bonus not simulated
Unemployment benefit	bunss or bunss_s	PS	PS	PS	PS	No data on contribution history. Simulation possible given that the wage preceding the unemployment benefit has been estimated in the input database (yempv), using the reverse function of the unemployment benefit rules
Pre-retirement benefit	byr	I	I	I	I	No data on contribution history
Invalidity pension	pdi00	I	I	I	I	No data on contribution history and on disability
Old-age pension from General and Statutory schemes	poapups	I	I	I	I	No data on contribution history (no separation between schemes since EU-SILC 2016 any longer)
Short-term work allowance (paid by state)	bwkmcee_s	S	S	S	S	

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

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 unemployment benefit (bunss_s) in Luxembourg. The benefit is only simulated for those with receipt of the benefit in the data using an imputed previous wage to determine the benefit size.

Table 12. Simulation of taxes and social insurance contributions in EUROMOD [2021-2024]

Tax/SIC	Variable	2021-2024	Comments
Personal income tax	tin_s	S	
Tax credit for employees	tintceent_s	S	
Tax credit for lone parents	tintclpnt_s	S	
Tax credit for retired	tintcpent_s	S	
Tax credit for self employed	tintcsent_s	S	
Contribution to unemployment fund	tinui_s	S	
Credited social contributions for replacement income and pensions – health care	tsccthl_s	S	
Credited social contributions for replacement income - pension insurance	tscctpi_s	S	
Credited social contributions for social assistance – health care	tscctsi_s	S	

Social contributions on social assistance – long term care insurance	tsceebeot_s	S	
Employee social contribution for health care - benefits in kind	tsceehl_s	S	
Employee social contribution for long-term care insurance	tsceeot_s	S	
Employee social contribution for pension insurance (civil servant)	tsceepbpi_s	S	
Employee social contribution for pension insurance (non civil servant)	tsceepi_s	S	
Employee social contribution for health care - cash benefits	tsceesi_s	S	
Employer social contribution for accident insurance	tscerac_s	S	
Employer social contribution for health care - benefits in kind	tscerhl_s	S	
Employer social contribution for pension insurance	tscerpi_s	S	
Employer social contribution for health care - cash benefits	tscersi_s	S	
Self-employed social contribution for accident insurance	tscseac_s	S	
Self-employed social contribution for health care - benefits in kind	tscsehl_s	S	
Self-employed social contribution for long-term care insurance	tscseot_s	S	
Self-employed social contribution for pension insurance	tscsepi_s	S	
Self-employed social contribution for health care - cash benefits	tscsesi_s	S	
Property tax		E	No information on the way the administration estimates the value of the property
Value added tax		S	Calculations based on extended input files with consumption expenditures from HBS
Excise duties		S	Calculations based on extended input files with consumption expenditures from HBS
Motor vehicle tax		E	No information available

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

2.2 Main policy changes

Policies	2020 → 2021	2021 → 2022	2022 → 2023	2023 → 2024
Benefits		An energy bonus is introduced for low-income households as compensation for increased energy costs. It varies between a minimum of €200 and €400 depending on household income and composition. The maximum income limits for eligible are those of the expensive life allowance, increased by 25%.	The energy bonus is extended until March.	
Social insurance contributions				

	2020 → 2021	2021 → 2022	2022 → 2023	2023 → 2024
Direct taxes		Introduction of a tax credit for energy, concerning employees, pensioners and the self-employed, until March 2023.	Tax credit for lone parent is increased by more than 65%. *New tax credit for conjuncture introduced in July retroactively, to offset the equivalent of two index tranches*	Adaptation of the tax schedule to allow a tax reduction of around 10% Introduction of a tax credit for CO_2, to compensate families and retirees whose incomes are lower after the increase of the CO_2 tax.
Consumption taxes				Restoration of old VAT rates (+1% except for the super-reduced rate) Normal rate from 16% to 17% Intermediate rate from 13% to 14% Reduced rate from 7% to 8%

2.3 Order of simulation and interdependence

- *Order of simulation in 2021-2024*

The following table shows the order in which the main elements of the Luxembourg system in 2021-2024 are simulated.

Table 13. EUROMOD Spine: order of simulation [2021-2024]

Policy	Description	LU_2021	LU_2022	LU_2023	LU_2024	Main output
random_lu	Random assignment	on	on	on	on	several
transLMA_lu	Simulation of labour market transitions	off	off	off	off	several
bunss_lu	Unemployment benefit	on	on	on	on	bunss_s
bsacm_lu	Guaranteed minimum income (RMG)	on	on	on	on	bsacm_s
tscee_lu	Employee social contribution	on	on	on	on	tscee_s
tscer_lu	Employer social contribution	on	on	on	on	tscer_s
tscct_lu	Credited social contributions	on	on	on	on	tscct_s
tscse_lu	Self-employed social contributions	on	on	on	on	tscse_s
tsceebeot_lu	Long term care contribution related to RMG	on	on	on	on	tsceebeot_s
tscctsi_lu	Credited social contributions for social assistance	on	on	on	on	tscctsi_s

bch00_lu	Child tax credit *(since 2008 only)*	off	off	off	off	bch00_s
bfauc_lu	Child benefit	on	on	on	on	bfauc_s
bched01_lu	New school year allowance	on	on	on	on	bched01_s
bsaht_lu	Heating allowance	on	on	on	on	bsaht_s
tin_lu	Personal income tax	on	on	on	on	tin_s
bedsim_lu	Scholarship for higher education *(2011 on)*	on	on	on	on	bed_s
bho_lu	Rent allowance *(since 2016)*	on	on	on	on	bho_s
tintcee_lu	Tax credit for employees *(since 2009 only)*	on	on	on	on	tintceent_s
tintcpe_lu	Tax credit for retired *(since 2009 only)*	on	on	on	on	tintcpent_s
tintcse_lu	Tax credit for self employed *(since 2009 only)*	on	on	on	on	tintcsent_s
tintclp_lu	Tax credit for lone parent *(since 2009 only)*	on	on	on	on	tintclpnt_s
tintengee_lu	Energy Tax credit for employee *(for 2022 and 2023 only)*	off	on	on	off	tintengee_s
tintengcse_lu	Energy Tax credit for self-employed *(for 2022 and 2023 only)*	off	on	on	off	tintengcse_s
tintengpen_lu	Energy Tax credit for retired *(for 2022 and 2023 only)*	off	on	on	off	tintengpen_s
tintco2ee_lu	CO2 Tax credit for employee *(for 2024 only)*	off	off	off	on	tintco2ee_s
tintco2cse_lu	CO2 Tax credit for self-employed *(for 2024 only)*	off	off	off	on	tintco2cse_s
tintco2pen_lu	CO2 Tax credit for retired *(for 2024 only)*	off	off	off	on	tintco2pen_s
tintsmw_lu	Tax credit for social minimum wage *(since 2019)*	on	on	on	on	tintsmw_s
tintceecon_lu	Conjuncture (CIC) Tax credit for employee *(for 2023only)*	off	off	on	off	tintceecon_s
tintcpencon_lu	Conjuncture (CIC) Tax credit for self-employed *(for 2023only)*	off	off	on	off	tintcpencon_s
tintcsecon_lu	Conjuncture (CIC) Tax credit for retired *(for 2023 only)*	off	off	on	off	tintcsecon_s

2.4 Policy extensions

ICS_lu is by default switched on and it drops individuals/households with international civil servants from the 2016 dataset. International civil servants have their own set of tax and benefit rules not modelled in EUROMOD, however this switch allows one to keep these

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individuals/households in the data and study the effects of applying the Luxembourgish national tax and benefit rules on those otherwise excluded households.

HHoT – Unemployment extension (HHoT_un): this extension improves the simulation accuracy of the unemployment insurance benefit when EUROMOD is run with hypothetical data. For instance, in most countries the legislation of this benefit requires information on variables such as individuals' employment history, which are not available in SILC; we can define these variables in HHoT and use them to simulate the policy's rules more precisely when running the model with hypothetical data. This extension is set to on when the model is used with HHoT data.

Benefit Calibration Adjustments (BCA), allowing the user to calibrate the receipt of benefits to match the simulated total expenditure of a benefit to real expenditure from external statistics. The extension is implemented for the simulation of the social assistance benefit (bsacm_lu). The default for the baseline is off. When the extension is on, a subset of eligible of observations is selected randomly as beneficiaries so that the real expenditure is reached, removing the benefit from the rest of the eligible observations; when off, all eligible observations are kept as beneficiaries. This extension shares most of its functions with the BTA extension; as a general rule, only one of the extensions should be on, but if both are, the lowest rate between the take-up rate and the calibration rate will be applied. More details on the specific implementation of BCA and BTA extensions are provided in the subsections describing the corresponding benefit.

Benefit Take-up Adjustments (BTA), allowing the user to apply non-take-up corrections. The extension is used for the simulation of social assistance benefit (bsacm_lu). The default for the baseline is on. When the extension is on, a share of (weighted) eligible observations equal to the take-up rate is selected randomly as beneficiaries, removing the benefit from the rest of the eligible observations; when off, all eligible observations are kept as beneficiaries. This extension shares most of its functions with the BCA extension; as a general rule, only one of the extensions should be on, but if both are, the lowest rate between the take-up rate and the calibration rate will be applied. More details on the specific implementation of BCA and BTA extensions are provided in the subsections describing the corresponding benefit.

2.5   Benefits

2.5.1   Child benefit (*Allocations familiales*) (*bfauc_lu*)

- *Definitions*

The unit of analysis is the family (tu_cb_lu), which is composed of parents and their dependent children (see Eligibility conditions below). To form a family, parents do not necessarily have to be married.

- *Eligibility conditions*

The child benefit is a universal scheme. A child's personal rights are related to the residence. Each child brought up continuously in Luxembourg and with a legal residence there is entitled to this child benefit. The age limit is 18 years. For children in vocational training or further education or suffering from a serious infirmity the age limit is 25 years.

Since 2011, children in higher education are no longer eligible (see *Section 1.2*).

- *Income test*

The child benefit does not vary with income.

- *Benefit amount*

Since 1ˢᵗ August 2016, two systems are applied and the changes compared to the previous system are mentioned below:

For children born before 1 August 2016 or the families arrived at Luxembourg before 1 August 2016, the monthly amount was in 2021 : € 265.00 for one child, € 594.48 for two children, € 1,033.38 for three children and € 438.70 for each subsequent child. In 2024, the values are respectively: € 299.86, € 672.62, € 1,169.01 and € 496 for each subsequent child.

For children born after 1 August 2016 or the families arrived at Luxembourg after 1 August 2016, the monthly amount is € 265 per child (€ 299.86 in 2024).

On top of this and in all cases, the supplement for age becomes € 20/month for children aged 6 and more (€ 22.67/month in 2024) and € 50/month for children aged 12 and more (€ 56.57/month in 2024).

Source: https://guichet.public.lu/fr/citoyens/famille/parents/allocation-naissance.html

- *EUROMOD modelling*

The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.5.2   Tax bonus for children (*Boni pour enfant*) (*bch00_lu*)

- *Definitions*

The tax bonus has been introduced in 2008, it replaced the tax reduction for children and it is paid by the family allowance fund. That is why the tax bonus is classified in the benefit section rather in the tax credit section. The unit of analysis is the same as that used for the personal tax (see "tu_tin_lu" in *Section 2.6.1*).

- *Eligibility conditions*

The tax bonus for children is awarded in favour of each child for whom the child benefits are paid. Children to whom the child benefits are no longer paid, are not eligible for the tax bonus for children. These children continue to be eligible for the tax reductions for children.

Since 2011, children in higher education are no longer eligible (see *Section 1.2*).

- *Income test*

The tax bonus for children does not vary with income.

- *Benefit amount*

Since 2008, the monthly amount is € 76.88 (€ 922.56/year) per child. The benefit is not subject to taxation or to social contributions and is not linked to changes in prices, meaning that the amounts are similar for the years 2008 up 2016.

Since 1ˢᵗ August 2016, the tax bonus for children was removed.

- *EUROMOD modelling*

The condition of being a child not eligible for the tax bonus but who continues to be eligible for the tax reduction for children is not simulated. It concerns very few cases.

2.5.3 Maternity leave benefit (Congé maternité) (bmact_*lu*)

- *Definitions*

The maternity leave benefit is paid by the national health fund (CNS) to all pregnant women who are engaged in a professional activity. The benefit ensures income continuity during the maternity leave period, which is legally defined to support women before and after childbirth.

- *Eligibility conditions*

The maternity leave benefit is available to mothers who are employees, self-employed, and apprentices. The mother must have been insured under the Social Security system for at least six months during the 12 months preceding the start of the maternity leave.

The leave begins eight weeks before the expected due date and extends to 12 weeks after childbirth.

- *Income test*

This benefit is not means-tested. It is based on prior earnings and does not depend on household income or other resources.

- *Benefit amount*

The maternity benefit compensates 100% of the highest salary earned during the last 3 months prior to maternity leave for employees or apprentices. For self-employed individuals, it is based on their declared income.

The benefit covers a total of 20 weeks (8 weeks before and 12 weeks after childbirth).

In case of multiple births or preterm delivery, additional weeks may be added to the postnatal leave.

The benefit is at least equal to the social minimum wage and does not exceed five times (€ 11,009.65/month for 2021, € 12,854.65/month for 2024):

Table 14. Maternity leave benefit (Congé de maternité), monthly benefits ceiling

	Minimum Amount (MW)	Maximum Amount (5 x MW)
2021	2,201.93€	11,009.65€
2022	2,313.38€	11,566.90€
2023	2,508.24€	12,541.20€
2024	2,570.93€	12,854.65€

This benefit is exempt from social contributions but subject to regular income tax rules.

- *EUROMOD modelling*

The simulated benefit is switched "off" in baselines.

Source:https://guichet.public.lu/fr/citoyens/travail/conges-jours-feries/situation-personnelle/conge-maternite.html

2.5.4 Paternity leave benefit (Congé paternité) (bpact_*lu*)

- *Definitions*

The paternity leave is an extraordinary 10 days leave granted to fathers, as well as any person recognized as a second parent, on the occasion of the birth of a child or the adoption of a child under 16 years old.

In principle, this leave is set at the employee's convenience (fractional or not), but if there is disagreement with the employer, the leave must be taken in one time and immediately after the event (the child's birth or adoption).

- *Eligibility conditions*

This leave is available for all employed and self-employed fathers and any person recognized as an equivalent second parent. The father must have worked at least 150 hours in the three months preceding the start of the leave.

- *Income test*

This benefit is not means-tested, ensuring universal access for eligible fathers.

- *Benefit amount*

Fathers are entitled to 10 working days of paternity leave, which must be taken within 2 months following the child's birth or adoption. During this period, the employer continues to pay the father their full salary for the first two days, after which the state reimburses the employer for salaries from the third day onward. The reimbursement covers the standard salary based on hours worked during this period.

For part-time, the duration of the leave is calculated on a pro rata basis.

In the case of multiple births, the father is entitled to one paternity leave per child.

- *EUROMOD modelling*

The simulated benefit is switched "off" in baselines.

Source:https://guichet.public.lu/fr/entreprises/ressources-humaines/conges/situation-perso/conge-paternite.html

2.5.5   Parental leave benefit (Congé parental) (bfapl_*lu*)

- *Definitions*

The parental leave allows parents to either interrupt or reduce their professional activity to care for a young child, ensuring a presence during critical moments of development. This leave can be requested by both parents for biological, legitimized, or adopted children. Since the reform of December 1, 2016, flexibility in scheduling the leave has been introduced, offering full-time, part-time, or split-time options depending on the parents' professional situations.

There are two types of parental leave:
- 1st parental leave: to be taken following maternity or fostering leave,
- 2nd parental leave: to be taken before the child's 6th birthday (12th birthday in the case of adoption).

Parental leave is granted only once for the same child.
During parental leave, the parent is entitled to an allowance, which constitutes a replacement income, paid by the Caisse pour l'avenir des enfants (CAE).

- *Eligibility conditions*

Each parent is entitled to parental leave for each child born or adopted, as long as he or she is an employee, apprentice, self-employed or civil servant.
The parent must be affiliated to the social security system on the basis of an employment contract, without interruption for at least 12 continuous months before starting the parental leave (if there is an interruption, it may not exceed a total of 7 days over the 12 months).
For employees, one or more employment contracts totalling at least 10 hours' work per week must exist, contract(s) which must cover the entire duration of the leave (this last point also applies to apprentices).

- *Income test*

This benefit is not means-tested. However, the benefit replaces income during the leave period..

- *Benefit amount*

The parents can choose to stop working:
- A full-time parental leave of 4 or 6 months
- A part-time parental leave of 8 or 12 months.

The parental leave can also be "split", that is a full-time person can reduce its activity at the rate of:
- 20 % a week (1 day a week) during a period of 20 months or,
- 4 periods of one month for a maximum period of 20 months.

It is necessary to obtain the agreement of the employer to benefit from the flexible parental leave.

The amount of the "replacement income" is calculated on the basis of the average monthly professional income received during the 12 months preceding the start of the parental leave.
For a full-time, this income corresponds at least to the monthly minimum wage and is limited at 5/3 of this minimum wage:

Table 15. `Parental leave benefit (Congé parental), monthly benefits ceiling for different average hours worked (€)`

	2021		2022		2023		2024	
Full-time leave	min	max	min	max	min	max	min	max
40 h	2,201.93	3,669.88	2,313.38	3,855.63	2,508.24	4,180.39	2,570.93	4,284.88
30 h	1,651.45	2,752.41	1,735.06	2,891.72	1,881.18	3,135.29	1,928.20	3,213.66
20 h	1,100.97	1,849.94	1,156.69	1,927,82	1,254.12	2,090.20	1,285.47	2,142.44
10 h	550.48	917.47	578.35	963.91	627.06	1,045.10	642,73	1,071.22
Half-time leave	min	max	min	max	min	max	min	max
40 h	1,100.97	1,849.94	1,156.69	1,927,82	1,254.12	2,090.20	1,285.47	2,142.44
30 h	825.73	1,387.46	867.52	1,445.87	940.59	1,567.65	964,10	1,606,83
20 h	550.49	924.97	578.35	963.91	627.06	1,045.10	642,73	1,071.22
10 h	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Split leave	min	max	min	max	min	max	min	max
40 h	440.39	739.98	462.68	771.13	501.65	836.08	514.19	856.98
30 h	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
20 h	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
10 h	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a

- *EUROMOD modelling*

The simulated benefit is switched "off" in baselines.

Source: https://cae.public.lu/fr/conge-parental/informations-generales.html

2.5.6 Higher education grant and/or loan (*Bourse et/ou prêt d'études pour enseignement supérieur*) (*bedsim_lu*)

- *Definitions*

The higher education grant and/or loan (*bourse et/ou prêt d'études pour enseignement supérieur*) is basically awarded to students who are registered in a University or a College (tertiary education). It has been reformed in 2014 with some new adaptation in 2016. The unit of analysis is "education grant"-related family (*tu_edugrant_lu*).

- *Eligibility conditions*

The grant is basically awarded to students who are registered in a University or a College (tertiary education), under common conditions (recognized programme, minimum number of credits, etc) or, in special cases, to students in technical secondary education (and who are allowed to complete their training abroad).

- *Income test*

The level of grant depends on the income net of taxes of the student's "household" (since 2014). Nevertheless, if the student's personal income exceeds the social minimum wage. The "household" to be considered is derived from administrative data and is basically composed of the fiscal unit, including children benefitting from derived rights in terms of health insurance.

- *Benefit amount*

See *Section 1.2* for basic information.

The grant is composed by:
- A basic amount: € 2,100/year in 2021 (€ 2,398/year in 2024).
- A mobility allowance: € 2,572 in 2021 (€ 2,982/year in 2024).
- A family supplement if 2 children or more are involved in higher education: € 524/year in 2021 per student (€ 574/year in 2024).
- A "social" complement depending on the household's income:

Table 16. Higher education grant and/or loan benefit (bedsim_lu) amounts

Annual household's income, net of taxes	Social complement (per year)		
	2021-2022	**2023**	**2024**
<= "Minimum Social Wage for non-qualified workers" (MSW)	€ 3,990	€ 4,420	€ 4,642
from MSW to 1.5 MSW	€ 3,364	€ 3,740	€ 3,926
from 1.5 MSW to 2 MSW	€ 2,782	€ 3,106	€ 3,260
from 2 MSW to 2.5 MSW	€ 2,256	€ 2,532	€ 2,658
from 2.5 MSW to 3 MSW	€ 1,732	€ 1,960	€ 2,058
from 3 MSW to 3.5 MSW	€ 1,206	€ 1,386	€ 1,454
from 3.5 MSW to 4.5 MSW	€ 576	€ 704	€ 738
> 4.5 MSW	No complement	No complement	No complement

Since 1 Aug 2017, all those amounts will be adapted to the so-called "*échelle mobile des salaires*" (close to automatic indexation of wages) each academic year following an academic year where this index will have been changed (law of July 2016).

Source: https://guichet.public.lu/fr/citoyens/enseignement-formation/etudes-superieures/aides-logement/aide-financiere.html

- *EUROMOD modelling*

The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.5.7 New school year allowance (*Allocation de rentrée scolaire*) (*bched01_lu*)

- *Definitions*

The unit of analysis is the family (tu_cb_lu, see *Section 2.4.1*). The new school year allowance *(Allocation de rentrée scolaire)* aims to compensate costs related to the new school year.

- *Eligibility conditions*

This allowance is given to children over 6 years. Except for the age condition, the eligibility conditions are similar to those for the child benefit.

- *Income test*

This allowance does not vary with income.

- *Benefit amount*

Since 1st August 2016, the amount of this allowance varies only with the age. Theses monthly amounts are € 115 euros/year for a child of more than 6 years old and to € 235 euros/year for a child of more than 12 years old. These amounts are per child.

Source: https://guichet.public.lu/fr/citoyens/famille/parents/allocation-naissance/allocations-familiales.html

- *EUROMOD modelling*

The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.5.8 Social assistance (*Revenu Minimum Garanti & Revenu d'inclusion sociale*) (*bsacm_lu*)

- *Definitions*

The guaranteed minimum income, which was available until 31st December 2018, could be either an integration allowance *(indemnité d'insertion)* or a supplementary allowance (allocation complémentaire) aiming to compensate the difference between the highest amounts of the guaranteed minimum income and the sum of the household resources. Since 1st January 2019, the social inclusion income (REVIS for REVenu d'Inclusion Sociale) replaces the guaranteed minimum income, always with two components: the inclusion allowance which replaces the supplementary allowance and the activation allowance instead of the integration allowance. By this changes, the aim is to improve certain points such as establishing a coherent system between stabilization, social activation and reintegration policies or acting against the poverty of children and single-parent families. Thereby, maximum amounts of the inclusion allowance increase for families with children and/or with one parent.

The simulation concerns only the supplementary/inclusion allowance, the most current situation. The integration/activation allowance can be considered as a salary: beneficiaries who participate in activation measures (for employment) are entitled to a monthly allowance based on the minimum social wage.

The domestic unit for the calculation of resources is defined by the "de facto" community of all the persons living in the same common household, obviously disposing of a common budget and unable to provide evidence that they live elsewhere (*tu_bsa_lu*).

For social assistance a dependent child is defined until 31st December 2018 as a person less than 18 years old or less than 27 years old and in education or disabled, and since 1st January 2019 as a person less than 25 years old in education.

- *Eligibility conditions*

The eligibility conditions concern:

i) residence (persons resident on Luxembourg territory and having resided in the country for at least 5 years during the last 20 years. This residence condition is not required for EU or EEA citizens or for refugees);

ii) age (with effect from 25 years; exceptions for persons unable to work, those who are looking after a child or an invalid);

iii) have resources below the REVIS scale for their household community;

iv) willingness to work (be registered with the Employment Development Agency (ADEM) and actively seek employment);

v) should not have disqualifying criteria (abandonment or reduction of work, non-respect of the collaboration agreement with ADEM, have been dismissed for serious reasons...).

- *Income test*

The resources taken into account are the entire gross revenue of the household, possessions and replacement or supplementary social security benefits. Family allowances, maternity benefits, long-term care benefits and professional income of children less than 25 years old up to the guaranteed minimum income for a person living alone were not taken into account. However, in RMG, to avoid inactivity traps, up to 30% of the reference minima were disregarded from the professional incomes and replacement incomes to compute the resources. With REVIS, the immunization mechanism obeys new rules which also aim to eliminate inactivity traps but also to enhance the income generated by increased activity. For this, an immunization of 25% is operated directly on the gross income concerned by the immunization and no longer on the scale due to the domestic community. Consequently, an increase in activity is no longer accompanied by an equivalent decrease in the inclusion allowance (as it was the case with the RMG).

The resources of wealth are also taken into account. These resources are defined by conversion into a life annuity of the global value of the wealth through multipliers that have to be defined by the State. The real estate value of property situated in Luxembourg is defined according to the unit values fixed by the tax administration. Due to lack of information, the resources of wealth are not simulated.

- *Benefit amount*

The REVIS is fixed in 2021 at € 1,543.73/month (€ 1,802.45/month in 2024) for a person living alone or for the first person of the domestic unit (base amount). For the second adult, the base amount is uprated by 50% of the amount for a person living alone, i.e. € 771.86/month (€ 901.94/month in 2024). In 2021, for each subsequent adult, the base amount is uprated by € 441.76/month (€ 515.76/month in 2024), and by € 140.41/month (€ 163.96/month in 2024) for each child. In addition to that, the REVIS add an increase of € 115.95/month (€ 132.04/month in 2024) for household with children and € 70.88/month (€ 82.74/month in 2024) per child living in a single-parent family (S).

Before 2016, where rent was due for an occupied flat, the difference between the rent paid and the amount corresponding to 10% of the guaranteed minimum income *(revenu minimum garanti)* was granted additionally. Maximum: € 123.94/month for a person living alone, to € 300/month for a household with more than 6 children. Since 2016, this allowance became a separate benefit, the rent allowance (which is described right after and simulated as bho_lu).

Source: https://guichet.public.lu/subvention-loyer and https://logement.public.lu/

Table 17. ocial assistance (Revenu d'inclusion sociale) amounts (*bsacm_lu*)

	First adult	**Second adult**	**Subsequent adult**	**Child**
2021	1543.76€	771.98€	441.76€	€ 239.83 (+70.88€ if SPF)
2022	1,621.86€	811.59€	464.12€	€ 251.97 (+74.46€ if SPF)
2023	1,758.50€	879.94€	503.18€	€ 273.20 (+80.72€ if SPF)
2024	1,802.45€	901.94€	515.76€	€ 280.03 (+82.74€ if SPF)

Source: https://revis.public.lu/fr.html and Social_parameters2023

- *EUROMOD modelling*

The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations. Further, BTA extension is on, so the baseline model adjusts for non-take-up of the benefit; BCA extension is off, so it does not calibrate its receipt according to external statistics, but the user can activate it if necessary. See section 2.4 for technical details on both extensions and their interactions.

Users can enable or disable the necessary extensions in Country Tools/Set Switches. For proper functioning, the extensions require the following inputs:

- **BTA**: The estimated take-up rate of the benefit should be set as the value of the $bsacm_BTA_rate constant in the model. Currently, the model incorporates values for 2006-2024 obtained from Duboi & Ludwinek (2014).
- **BCA**: The aggregate expenditure needs to be filled out in the External Statistics table, so that the calibration rate ($bsacm_BCA_rate) is computed accordingly. Data are currently available for the years 2018-2022; given the absence of information for 2023 and 2024, the calibration rate is not computed within the 2023 and 2024 systems, but the one computed in the 2022 system is used instead. For the modelling of reforms, the 2023 and 2024 systems should be used in order to allow for variation in the number of beneficiaries (hence expenditure): beneficiaries will change when the eligibility conditions change by applying the share of 2022 to the new pool of eligible units. If previous systems were used for reforms, total expenditure would remain constant irrespective of the reform applied, since the model would always stick to the existing external statistics.

2.5.9 Rent allowance (*Subvention de loyer*), since 2016 (*bho_lu*)

- *Definitions*

The rent allowance (*Subvention de loyer*) is by principle replacing since 2016 the supplement for rental costs embedded in the "guaranteed minimum income" (see *Sections 1.2 and 2.5.5* above). The unit of analysis is the "rent allowance"-related household (*tu_bho_lu*) which is indeed involving all members of the residence household with specific conditions to be considered for dependent children (see *Section 1.2*).

- *Eligibility conditions*

The eligibility conditions concern residence (persons resident on Luxembourg territory) and rental costs to related to the private sector exclusively.

- *Income test*

This allowance is a means-tested allowance. Since 2016, only households whose the "total net disposable income" -up to 2017- or "total income" –in 2018- (made explicit in *Section 1.2*) is below a threshold may be awarded a rent allowance. This threshold remained constant until 2019, but increased in 2020 because of the COVID-19 crisis.

The threshold for net disposable income depends on the composition of the household: one-person household (1A), 2-person household without a child (2A), household with 1/2/3/4/5/6 child(ren) (A1C, A2C, A3C, A4C, A5C, A6C) or household with 7 children or more (A7C+). The thresholds corresponding to each configuration are mentioned in the table just below (in EUR/month).

Table 18. Rent allowance (*Subvention de loyer*), since 2021 (*bho_lu*) Income

Tests

	1A	2A	A1C	A2C	A3C	A4C	A5C	A6C	A7C+ (per child above 6th)
2021	2,650.00	3,950.00	4,750.00	5,500.00	6,300.00	7,100.00	7,900.00	8,650.00	+800
2022	3,065.93	4,598.90	5,528.67	6,438.45	7,358.23	8,278.01	9,197.79	10,117.56	+800
2023	3,126.83	4,800.49	5,664.27	6,405.55	6,960.63	7,736.22	8,511.80	9,287.38	+800
2024	3,430.75	5,267.08	6,214.83	7,028.17	7,637.17	8,488.08	9,339	10,189.92	+850.92

- *Benefit amount*

Households who satisfy the eligibility condition, the income test and which are facing rental costs (related to the private sector) lower than a "reference rent" may be awarded a rent allowance.

The reference rent to be considered is depending on the household composition (1A to A7C+) and mentioned in the table just below (in EUR/month).

Table 19. Rent allowance (*Subvention de loyer*), since 2021 (*bho_lu*) Reference rents

	1A	2A	A1C	A2C	A3C	A4C	A5C	A6C	A7C+ (per child above 6th)
2021	935	1,020	1,200	1,380	1,615	2,005	2,245	2,395	+ 125
2022	935	1,020	1,200	1,380	1,615	2,005	2,245	2,395	+ 125
2023	935	1,020	1,200	1,380	1,615	2,005	2,245	2,395	+ 125
2024	935	1,020	1,200	1,380	1,615	2,005	2,245	2,395	+ 125

Finally, the rent allowance to be considered is computed as follows (up to 2017 included):

$$\text{Reference rent} - (0.33 * \text{Net disposable income})$$

Or (since 2018):

$$\text{Reference rent} - (0.25 * \text{Net disposable income})$$

It can of course not be negative and is upper-limited, based on a maximum amount also depending on the household composition (1A to A7C+) and mentioned in the table just below (in EUR/month).

Table 20. Rent allowance (*Subvention de loyer*), since 2020 (*bho_lu*) Benefits

									A7C+ **(per child above 6th)**
	1A	**2A**	**A1C**	**A2C**	**A3C**	**A4C**	**A5C**	**A6C**	
2021	134	134	160	187	214	241	267	294	0
2022	200	280	320	360	400	400	400	400	0
2023	200	280	320	360	400	400	400	400	0
2024	200	280	320	360	400	400	400	400	0

ceiling

Source : https://logement.public.lu/fr/locataire/obtenir-aide-location/subventionloyer.html and https://logement.public.lu/dam-assets/documents/publications/aides-logement/location/bro-location-fr-web.pdf

EUROMOD modelling

The last known "income after tax" is basically referring to a year anterior to the simulation period. We do not transfer those amounts across years in EUROMOD and therefore consider here the "income after tax" corresponding to the "present" period (the one presently simulated), which may deviate from reality. This is the reason why the new policy is implemented after income taxation in the simulation spine, which may make the "interaction" between the former rent allowance (necessarily embedded in the minimum guaranteed income computation) and the new one rather complex if all possible feedbacks had to be taken into account, what is not done in the present version of the model for sake of simplicity (anyway, the expected noise is low).

Moreover, the non take-up rate for this rent allowance as observed in 2017 and early 2018, despite decreasing rapidly, still appears to be rather high, out of beneficiaries of the guaranteed minimum income scheme who are informed on a more systematic basis and may still benefit from the former system. Therefore, we choose to implement the new system for the beneficiaries of the guaranteed minimum income exclusively, maintain the former system in EUROMOD in 2016, 2017 and 2018, compute the new one and simply add to benefits at large the difference between the two amounts, provided that there is a positive difference (otherwise maintaining the former level of support). Based on the evolution of the take-up of this benefit, the situation will be re-evaluated the next year.

https://www.lesfrontaliers.lu/societe/la-subvention-de-loyer-cette-belle-oubliee/

2.5.10 Expensive life allowance (*Allocation de vie chère*) (*bsaht_lu*)

NB: formerly (prior to 2009) "Heating allowance", hence the policy acronym

- *Definitions*

The expensive life allowance *(Allocation de chauffage)* aims to support the cost of living for low income families. The unit of analysis is the household (*tu_household_lu*).

- *Eligibility conditions*

The eligibility conditions concern residence (persons resident on Luxembourg territory).

- *Income test*

This allowance is a means-tested allowance. To be eligible in 2021, the global annual income should not exceed: € 26,445.24/year for a person living alone (€ 30,939.53/year in 2024), €

39,667.8/year for a two-person family (€ 46,409.29/year in 2024), € 47,601.36/year for a three-person family (€ 55,691.15/year in 2024), € 55,534.92/year for a four-person family (€ 56,922.72/year in 2024) and € 63,468.48/year for a five-person or more family (€ 65,054.54/year in 2024).

The global annual income of the family involves labor earnings, replacement income, revenue from movable and immovable property, pensions and rents, allowances and other benefits from public as well as private bodies and alimonies. In 2019, child benefits (*allocations familiales*), new school year allowances (*allocation de rentrée scolaire*) and birth grants (*allocation de naissance*) are excluded from the total amount to be considered.

- *Benefit amount*

Table 21. Expensive life allowance (Allocation de vie chère) benefit amounts (bsaht_lu)

	One-person household		Two-person household		Three-person household		Four-person household		Five-person household and more	
	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year
2021	26,445.24	1,452	39,667.80	1,815	47,601.36	2,178	55,534.92	2,541	63,468.48	2,904
2022	27,106.05	1,652	40,659.08	2,065	48,790.90	2,478	56,922.72	2,891	65,054.54	3,304
2023	28,730.76	1,652	43,096.20	2,065	51,715.44	2,478	60,334.68	2,891	68,953.92	3,304
2024	30,939.53	1,652	46,409.29	2,065	55,691.15	2,478	64,973.01	2,891	74,254.87	3,304

In 2021, the amount of the expensive life allowance is € 1,452/year for a person living alone, € 1,815/year for a two-person family, € 2,178/year for a three-person family, € 2,514/year for a four-person family and € 2,904/year for a five-person or more family. Those annual amounts increased in 2022 and has remained the same since: € 1,652/year for a person living alone, € 2,065/year for a two-person family, € 2,478 for a three-person family, € 2,891 for a four-person family and € 3,304 for a five-person or more family.

The allocation increase of 2022 was more than usual (at least € 200) due to the substantial increase in consumer prices, including energy prices.

The allowance is not subject to taxation or to social contributions.

Persons with an income higher than the limits defined in the "income test" paragraph are entitled to a reduced allowance that corresponds to the difference between the amounts of the expensive life allowance and the part of the annual income that exceeds the income limits.

Source: guichet.public.lu/allocation-vie-chere

- *EUROMOD modelling*

The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.5.11 Energy bonus (Prime énergie) (bsaht_lu)

- *Definitions*

The energy bonus *(Prime énergie)* was introduced in 2022 and maintained in subsequent years for low-income households as compensation for increased energy prices. The unit of analysis is the household (*tu_household_lu*). Households eligible for the expensive life allowance automatically receive the energy bonus.

- *Eligibility conditions*

The eligibility conditions concern residence (residents in Luxembourg territory).

- *Income test*

This allowance is a means-tested allowance. The maximum income limits for eligible are those of the expensive life allowance, increased by 25%. To be eligible in 2024, the global annual income should not exceed: € 38,674.41/year for a person living alone, € 58,011.61/year for a two-person family, € 69,613.93/year for a three person family, € 81,216.25/year for a four-person and € 92,818.57/year for a five-person or more family.

- *Benefit amount*

Table 22. Energy bonus (Prime énergie) benefit amounts

	One-person household		Two-person household		Three-person household		Four-person household		Five-person household and more	
	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year	Upper limit €/year	Ben. €/year
2022	33,882.56	200	50,823.85	250	60,988.63	300	71,153.40	350	81,318.18	400
2023	35,913.45	200	53,870.28	250	64,644.36	300	75,418.44	350	86,192.52	400
2024	35,913.45	200	53,870.28	250	64,644.36	300	75,418.44	350	86,192.52	400

The amount of the energy bonus was fixed at € 200/year for a person living alone, € 250/year for a two-person family, € 300/year for a three-person family, € 350/year for a four-person family and € 400/year for a five-person or more family.

The allowance is not subject to taxation or to social contributions.

Persons with an income higher than the limits defined in the "income test" paragraph are entitled to a reduced bonus.

Source: guichet.public.lu/allocation-vie-chere

- *EUROMOD modelling*

The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.5.12 Unemployment benefit (*Indemnité de chômage*) (*bunss_lu*)

- *Definitions*

The unemployment benefit *(indemnité de chômage)* is a benefit related to remuneration previously earned. The unit of analysis is the individual *(tu_individual_lu)*.

- *Eligibility conditions*

The main conditions for being eligible for the unemployment benefit are the following: to be involuntarily unemployed, work not permitted, unless part-time and with anti-accumulation rules applying, to be fit to work, to be available for work, to be aged between 16 and 64, to have registered for employment, to accept suitable employment or an active measure offered, to be resident in Luxembourg when the redundancy occurs; claim for the benefit within 2 weeks. The qualifying period for this benefit is at least 26 weeks of employment during the last year (with at least 16 hours of work per week).

- *Income test*

None.

- *Benefit amount*

The benefit is determined by the salary earned before unemployment starts : 80% of previous gross wages or 85% if the unemployed has one or more children. The earnings taken are the gross earnings during the 3 months which precede unemployment (6 months for special cases). The allowance cannot exceed 2.5 times the minimum wage (€ 5,504.83/month in 2021, € 6,427.33/month in 2024) or 2 times the minimum wage (€ 4,403.86/month in 2021, € 5,141.86/month in 2024) in the case that the unemployment exceeds 182 days in a period of 12 months. For the period of complementary benefit (in case of unemployment benefit is allowed after the 356 days of the normal duration of compensation) the ceiling is fixed at 1.5 times the minimum wage (€ 3,302.90/month in 2021, € 3,856.40/month in 2024). The rate of the benefit is 80% of reference earnings, increasing to 85% of earnings if there are dependent children. The duration of payment is 365 calendar days during a reference period of 24 months (without exceeding the duration of working days over the reference period); 182 extra calendar days for persons who are particularly "difficult" to place. For unemployed of 50 years and more, prolongation of 12, 9 or 6 months respectively if 30, 25 or 20 years of affiliation to pension. Loss of allowance for 7 days (30 days if repeated) if the unemployed person refuses to report to the employment office. Accumulation with other social security benefits is not possible. If income from a gainful professional activity exceeds 10% of the maximum threshold of the provided compensation, the unemployment benefit is reduced by the amount exceeding the provided ceiling (* *Euromod modelling* section). The benefit is subject to taxation and to social contributions for health care, long-term care insurance and pension insurance.

The following table summarises the main characteristics of unemployment insurance benefit in Luxembourg.

Table 23. Characteristics of the unemployment benefit

		2021	**2022**	**2023**	**2024**
Eligibility	Contribution period	6 months	6 months	6 months	6 months
	Other conditions	See above	See above	See above	See above
Payment	Contribution base	Last 3 months gross earning	Last 3 months gross earning	Last 3 months gross earning	Last 3 months gross earning
	Basic amount	80% of reference earnings	80% of reference earnings	80% of reference earnings	80% of reference earnings
	Additional amount	€ 3,302.9/month	€ 3,470.07/month	€ 3,762.36/month	€ 3,856.40/month
	Floor	80% of reference earnings	80% of reference earnings	80% of reference earnings	80% of reference earnings
	Ceiling				
	Until the 6th month	€ 5,504.83/month	€ 5,783.45/month	€ 6,270.60/month	€ 6,427.33/month
	After the 6th month	€ 4,403.86/month	€ 4,626.76/month	€ 5,016.48/month	€ 5,141.86/month
Duration	Standard (in months)	6/12month	6/12month	6/12month	6/12month
	Special cases (in month)	12±months	12± months	12± months	12± months
Subject to	Taxes	Yes	Yes	Yes	Yes
	SIC	Yes	Yes	Yes	Yes

Source: https://guichet.public.lu/fr/citoyens/travail-emploi/chomage/indemnite

- *EUROMOD modelling*

No information concerning the salary earned before unemployment starts and other eligibility conditions is available. To make it possible to simulate unemployment benefit, an inverse function of the unemployment benefit for the current recipients of the benefit has been implemented in order to estimate the salary earned before unemployment starts. From the estimated salary earned before unemployment starts it is then possible to estimate the unemployment benefit using the 80% or 85% replacement rate. Concerning the ceiling of the benefit, it is only possible to use 2.5 times the minimum wage.

(*) Moreover, due to difficulty of implementation, both the accumulation rule with other social security benefit and the rule on benefit reduction if income from professional activity exceed 10% of the befit amount are not simulated in the model.

- *COVID-19 crisis measures*

People whose unemployment benefit ended during the crisis are extended until the end of it.

Source: https://adem.public.lu/en/employeurs/demander-aides-financieres/maintenir-emploi/chomage-partiel/chomage-partiel-covid19.html

2.6 Social insurance contributions

Social contributions are compulsorily paid by insured persons and, if appropriate, by their employers. Social contributions are calculated on the basis of the professional incomes (or replacement incomes) through an equal contributions rate independently from the individual situation (age, gender, family situation, health status) but depending on the risks insured (health, sickness and maternity, pension, long-term care, accident) and the socio-professional categories (employees, civil servant, self-employed, farmers…). Unlike in many other countries, unemployment benefits are not financed by social contributions but by income tax.

Sources: https://www.pwc.lu/en/newsletter/2022/social-parameters-april-2022.html and https://ccss.public.lu/fr/parametres-sociaux.html

2.6.1 Employee social contributions *(tscee_s)*

Employee social contributions are composed of social contributions for health care – cash benefits *(tsceesi_s),* social contributions for health care – benefits in kind *(tsceehl_s),* social contributions for pension *(tsceepi_s* and *tsceepbpi_s)* and social contributions for long-term care *(tsceeot_s).* Social contributions are paid on an individual basis *(tu_individual_lu).*

Social contribution for health care - cash benefits *(Cotisations sociales pour soins de santé – prestations en espèce)* finance sickness and maternity cash benefits. All employees from the private sector are entitled to these social contributions. Civil servants who benefit from continuation of the salary in the case of sickness or maternity do not have to pay this social contribution. The contribution basis is composed of the professional income, i.e., the gross pay including all the advantages even if they are in kind but excluding occasional allowances and bonuses. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

Since 2009, a uniform status (*statut unique*) has been introduced for blue- and white-collar workers. A surcharge for BC which was intended for the "Mutualité des employers" decreased from 2.10% in 2009, 2010 and 2011 to 1% in 2012, 0.5% in 2013 until 0% in 2014, the year in which this administrative differentiation for health care disappeared completely.

Since the "statut unique", both white-collar and blue-collar workers continue to receive pay - imposed on the employer for the month in which the sickness occurs and for the following three months.

Sources: http://www.ogbl.lu/wp-content/uploads/2011/10/statut_unique_fr.pdf

Table 24. `Employee social contributions (tscee_s) rates and amounts`

	Rate for blue-collar workers	Rate for white-collar workers	Minimum contributory amount	Maximum contributory amount	Value of the minimum wage (MW)
2021	0.25%		MW	5 x MW	2,201.93€/month
2022	0.25%		MW	5 x MW	2,313.38€/month

| 2023 | 0.25% | MW | 5 x MW | 2,508.24€/month |
| 2024 | 0.25% | MW | 5 x MW | 2,570.93€/month |

*EUROMOD modelling***:** The contribution basis is composed of the professional income, i.e., the gross pay including all the advantages even if they are in-kind but excluding occasional allowances and bonuses. However, for the simulation we consider only the gross pay and not the fringe benefits.

Social contribution for health care - benefits in kind *(Cotisations sociales pour soins de santé-prestations en nature).* The contribution basis is composed of the professional incomes defined above including occasional allowances and bonuses, the pensions and all replacement incomes subject to social contributions. The contribution rate is 5.6% in total since 2016: 2.8% for the insured and 2.8% for the employer. For the contribution basis there is a minimum that corresponds in principle to the minimum wage (for a full-time job). In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. The minimum is increased by 30% for persons receiving a pension. If the pension does not reach the minimum, the contribution basis is the effective amount of the pension and the institution that pays the pension will pay the difference. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

Table 25. Social contribution for health care – benefits in kind (Cotisations sociales pour soins de santé– prestations en nature) amounts

	Rate	**Minimum contributory amount***	**Maximum contributory amount**	**Value of the minimum wage (MW)**
2021	2.8%	MW	5 x MW	2,201.93€/month
2022	2.8%	MW	5 x MW	2,313.38€/month
2023	2.8%	MW	5 x MW	2,508.24€/month
2024	2.8%	MW	5 x MW	2,570.93€/month

*MW+30% for pensioners

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

Social contribution for long-term care insurance *(Cotisations sociales pour l'assurance dépendance).* The contribution basis is composed of the professional incomes, the replacement incomes and the wealth incomes. The contribution rate amounts to 1.40 % for employees (there is no employer contribution). No maximum is applied to the contribution basis. The monthly contribution basis is reduced by 25% of the minimum wage for persons receiving a wage or a replacement income from the social security.

Table 26. Social contribution for long-term care insurance rates and amounts

	Rate	**Amount disregarded for wage earner or recipients of a replacement income from the social security**	**Value of the minimum wage (MW)**
2021	1.4%	25% MW	2,201.93€/month
2022	1.4%	25% MW	2,313.38€/month

| 2023 | 1.4% | 25% MW | 2,508.24€/month |
| 2024 | 1.4% | 25% MW | 2,570.93€/month |

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

Social contribution for pension insurance (*Cotisations sociales pour pension*). The contribution basis is composed of the professional incomes or by the following replacement incomes (unemployment benefit, sickness benefit, maternity benefit, parental leave benefit). The contribution rate is 24% in total: 8% for the insured, 8% for the employer and 8% for the State. For the contribution basis there is a minimum that corresponds in principle to the minimum wage (for a full-time job). In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024). Nevertheless, there is no ceiling for civil servants.

Table 27. Social contribution for pension insurance rates and amounts

	Rate	**Minimum contributory amount**	**Maximum contributory amount**	**Value of the minimum wage (MW)**
2021	8%	MW	5 x MW	2,201.93€/month
2022	8%	MW	5 x MW	2,313.38€/month
2023	8%	MW	5 x MW	2,508.24€/month
2024	8%	MW	5 x MW	2,570.93€/month

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.6.2 Employer social contributions *(tscer_s)*

Employer social contributions are composed of social contributions for health care – cash benefits *(tscersi_s),* social contributions for health care – benefits in kind *(tscerhl_s),* social contributions for pension *(tscerpi_s)* and social contributions for an accident *(tscerac_s).* Except for the contributions for an accident, the rules for the other employer social contributions are exactly the same as those concerning employee social contributions.

Social contribution for health care - cash benefits (*Cotisations sociales pour soins de santé – prestations en espèce*) Regarding health care – cash benefits, the participation of the employers to the "Mutualité des employeurs" has been made compulsory since 2009, due to the "statut unique". The employer's contribution rate involves a fix part (0.25% for all employers since 2009) and a variable part funding the so-called *Mutualité des employeurs* and depending on the "class of risk" regarding absenteeism within the firm. The corresponding variable part of rate was comprised between 0.53% and 2.88% in 2021 (0.01% and 1.36% in 2024).

Source: https://mde.public.lu/fr/affiliation-financement/financement.html

*EUROMOD modelling***:** Given lack of data and for simplicity reasons, we have implemented an unweighted average variable rate only, changing through time:

Table 28. `Social contribution for health care – cash benefits rates`

	Rate *(1)*
2021	0.25% + *1.71%*
2022	0.25% + *1.79%*
2023	0.25% + *1.78%*
2024	0.25% + *0.69%*

Social contribution for health care - benefits in kind *(Cotisations sociales pour soins de santé-prestations en nature).* See "Employee social contributions", Section 2.6.1.

Employer social contributions for accident (*Cotisations sociales de l'assurance accident*). These contributions are paid exclusively by the employer. Since 2011 to 2018, all industrial firms are ranged in 22 risk classes and the contribution rate is uniform with a level of 1.00% in 2016 and 2017, 0.90% in 2018. Since 2019, there are 17 risk classes according to the main activity and a bonus-penalty system varies the rate. A bonus-penalty factor (BPF) is calculated by comparing the contributor to the other contributors from the same class, using a load coefficient of the contributor and a load coefficient of his risk class, and depending on the result, the basic contribution rate (0.75% since 2019) is adapted and varies according to 5 values which are in 2024:
  - 0.595% for a BPF less than 0.85 (a bonus is applied),
  - 0.70% for a BPF between 0.9 and 1.0 (no bonus, no penalty),
  - 0.77% for a BPF between 1.0 and 1.1,
  - 0.91% for a BPF between 1.1 and 1.3,
  - 1.05% for a BPF greater than 1.3 (a penalty is applied).

For the contribution basis there is a minimum that corresponds in principle to the minimum wage (for a full-time job). In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024). Concerning the agricultural or forestry sector, the contributions are calculated according to the size of the land, the vineyard or the forest.

Table 29. `Employer social contributions for accident – cash benefits rates & cash benefit bonus penalty factor rate (since 2021)`

	2021	**2022**		**2023**	**2024**
Bonus-penalty factor	**Rate**	**Rate**	**Bonus-penalty factor**	**Rate**	**Rate**
0.9	0.68%	0.68%	0.85	0.64%	0.595%
1.0	0.75%*	0.75%*	1.0	0.75%*	0.70%*
1.1	0.83%	0.83%	1.1	0.83%	0.77%
1.3	0.98%	0.98%	1.3	0.98%	0.91%
1.5	1.13%	1.13%	1.5	1.13%	1.05%

* The basic rate % (no bonus, no penalty)

Source: https://aaa.public.lu/fr/prestations-cotisations/cotisations/bonusmalus.html

EUROMOD modelling: Given lack of data about risk classes necessary to determinate the rate and for simplicity reasons, we have implemented an average variable rate only.

2.6.3 Self-employed social contributions *(tscse_s)*

Self-employed social contributions are composed of social contributions for health care – cash benefits *(tscsesi_s),* social contributions for health care – benefits in kind *(tscsehl_s),* social contributions for pension *(tscsepi_s),* social contributions for long-term care *(tscseot_s)* and social contributions for accident *(tscseac_s).* Social contributions are paid on an individual basis *(tu_individual_lu).*

Social contribution for health care - cash benefits *(Cotisations sociales pour soins de santé – prestations en espèce)* finance sickness and maternity cash benefits. The contribution basis is composed of the professional income of the insured person. For the self-employed, excluding agricultural activity, the professional income corresponds to the net income defined by the tax law. For the agricultural self-employed, the professional income is fixed on the basis of the production. The contribution rate is 0.50% since 2009. For the contribution basis there is a minimum that corresponds in principle to the minimum wage (for a full-time job). In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

EUROMOD modelling: As SILC does not provide information on the production of the agricultural self-employed, we use the professional income as for the other self-employed.

Social contribution for health care - benefits in kind *(Cotisations sociales pour soins de santé-prestations en nature).* The contribution basis is composed of the professional incomes defined above. The contribution rate is 5.6%. For the contribution basis there is a minimum that corresponds in principle to the minimum wage (full-time job). In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024).

Table 30. `Social contribution for health care – benefits in kind rates and`

amounts

	Rate	Minimum contributory amount	Maximum contributory amount	Value of the minimum wage (MW)
2021	5.6%	MW	5 x MW	2,201.93€/month
2022	5.6%	MW	5 x MW	2,313.38€/month
2023	5.6%	MW	5 x MW	2,508.24€/month
2023	5.6%	MW	5 x MW	2,570.93€/month

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

Social contribution for long-term care insurance (*Cotisations sociales pour l'assurance dépendance*). The contribution basis is composed of the professional incomes. The contribution rate amounts to 1.40 %. No maximum is applied to the contribution basis.

Table 31. Social contribution for long-term care insurance rates

	Rate
2021	1.4%
2022	1.4%
2023	1.4%
2024	1.4%

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

Social contribution for pension insurance *(Cotisations sociales pour pension)***.** The contribution basis is composed of the professional incomes. The contribution rate is 16%. For the contribution basis there is a minimum that corresponds in principle to the minimum wage (full-time job). In the case of a part-time job, the minimum is reduced proportionally regarding the duration of the job. There is also a ceiling for the contribution basis that corresponds to 5 times the minimum wage, which means for 2021: 5 x € 2,201.93/month = € 11,009.65/month (€ 12,854.65/month for 2024). Nevertheless, there is no ceiling for civil servants.

Table 32. Social contribution for pension insurance rates and amounts

	Rate	Minimum contributory amount	Maximum contributory amount	Value of the minimum wage (MW)
2021	16%	MW	5 x MW	2,201.93€/month
2022	16%	MW	5 x MW	2,313.38€/month
2023	16%	MW	5 x MW	2,508.24€/month
2024	16%	MW	5 x MW	2,570.93€/month

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

Self-employed social contributions for accident *(Cotisations sociales de l'assurance accident)*. Same configuration and implementation as for "Employer social contributions", Section 2.6.2.

2.6.4 Social contributions on social assistance *(tsceebeot_s)*

Two types of social contributions are levied on the social assistance benefit *(revenu mimum garanti)*: the social contribution for health-benefit in kind that is calculated in the module "Employee social contributions (section 2.6.1)" and the social contribution for long-term care *(tsceebeot_s)*.

The rules for calculating these two social contributions are exactly the same as those described above for employees. The contribution basis is the gross amount of the social assistance.

2.6.5 Credited social contributions *(tscct_s)*

Credited social contributions are composed of social contributions for health care – benefits in kind *(tsccthl_s)* and social contributions for pension *(tsccctpi_s)*. The rules for these social contributions are exactly the same as those concerning employee social contributions. The contribution basis is the replacement income or the pension income.

2.6.6 Credited social contributions for social assistance *(tscctsi_s)*

Credited social contributions for social assistance are composed of social contributions for health care – benefits in kind. The rules for these social contributions are exactly the same as those concerning employee social contributions. The contribution basis is the gross amount of the social assistance.

2.7 Direct taxes

2.7.1 Tax unit

Personal income tax (*Impôt sur le revenu des personnes physiques*) is taxed jointly at the family unit *(tu_tin_lu)*.

The family unit is defined by the marriage or the legal consensual union and children less than 18 years old on 1 January of the tax year without a salary.

Taxpayers are granted a tax class according to their family status.
Until 2018, married taxpayers (even in the case of a wedding or divorce during the calendar year), widowed persons for the 3 years following the year in which they became widowed, divorced or separated individuals for the 3 years following the year of divorce or separation and civil partners who live together for a full tax year and elect to file jointly, belong to tax class 2.
Widowed persons not included in tax class 2, individuals aged at least 65 on 1 January and single parents belong to tax class 1a.
All other individuals belong to tax class1.

For tax class purposes, the definition of a child is different from that used in the tax unit. A child is less than 21 years old on 1 January of the tax year or 21 years old and more continuing to study.

Table 33. `Personal income tax classes eligibility by marriage status`

	Without children	With children	More than 64 years old on 1 January
Single	1	1a	1a
Married/ Legal consensual union*	2	2	2
Separated**	1	1a	1a
Divorced**	1	1a	1a
Widow**	1a	1a	1a

* If the persons in legal consensual union ask to be taxed jointly, the rules concerning married couples are applied

** These taxpayers continue to benefit from splitting (tax class 2) during the 3 years after the separation, the divorce or being widowed.

Since 2018, a tax reform of 2017 introduced a distinction between resident and non-resident taxpayers who are married with multiple cases.

Table 34. `Personal income tax classes eligibility by marriage status and residence`

	Without children	With children	More than 64 years old on 1 January
Married taxed collectively, including spouses' native and foreign income (non-resident spouses must fulfil the conditions of assimilation to benefit class 2), the resident generating at least 90% of the household income in Luxembourg	2	2	2
Married, with one resident taxpayer and the other non-resident	1	1a	1a
Married non-residents, from the 2018 tax year, each spouse is taxed separately only on his own native income in Luxembourg	1	1	1
Married non-residents, for the fiscal year 2017 (or earlier if no break in the life and interests community), having more than 50% of the household income in Luxembourg	2	2	2
Married non-residents, for the fiscal year 2017 (or earlier if no break of the life and interests community), having less than 50% of the household income in Luxembourg	1a	1a	1a
Married non-residents, for fiscal years prior to 2017, in break of the life and interests community	1	1a	1a

Source: https://impotsdirects.public.lu/fr/salpens/fiche/classe_impot.html

Reform in 2018

Before 2018, married taxpayers were necessarily taxed collectively with their spouses. From fiscal year 2018, these married taxpayers can choose between either a pure individual taxation, an individual taxation with reallocation of income, or a collective taxation (as before 2018).

The pure personal taxation takes into account only the own income of the married taxpayer. If the couple chooses this tax, each spouse is taxed in class 1 taking into account his/her own income. Tax allowances (limits), for example the extra-professional allowance, are divided equally between the two spouses.

Individual taxation with income reallocation takes into account the total income of the couple. Then the couple chooses the share of adjusted taxable income to be allocated to each spouse. Therefore, each spouse is taxed based on class 1 and taking into account the share of income allocated to him/her.

If nothing is explicitly specified by the spouses, the adjusted taxable income is equally shared between the two taxpayers. This is a so-called "convergent reallocation". In the case where the spouses explicitly indicate the share of adjusted taxable income to be allocated to each, we face a "divergent reallocation".

In the case of individual taxation with reallocation, there is no distribution of tax allowances because the reallocation is done at the level of the adjusted taxable income - that is to say after the imputation of all the allowances to which the household may be entitled.

EUROMOD applies to resident population and considers tax computation for all households, whatever the marital status, income levels, etc. of the members. In case of married taxpayers, joint taxation tends to dominate, in terms of net disposable income downstream, over all other configurations. Therefore, for all resident-households in Luxembourg, the tax reform as seen from EUROMOD has no effect.

Non-resident (cross border) households fully or partially taxable in Luxembourg might benefit from the 2018 reform but they are not integrated in the EUROMOD target population and therefore the tax module in EUROMOD remains unchanged despite the reform. It is still under discussion whether the measure will be mandatory or not. Moreover, the data (the ratio/total number of beneficiary) needed to implement/validate the reform is not available and therefore the policy is not included in the model, but remains to be included if it becomes mandatory.

Exemptions

We define exemptions following Verbist (2004): "income components (that) are part of pre-tax income, but do not have to be declared to the tax authorities, and thus are not included in the concept of taxable income (e.g. child benefits in most countries)".

Exemptions concern child benefit, new school year benefit, education benefit, maternity benefit, birth benefit, parental leave benefit, heating allowance benefit, 30% of the wage of the agricultural worker, additional wages for night work, Sunday work and bank holiday work, payment for additional hours, and severance pay.

***EUROMOD modelling*:** Because of missing information in data, all married couples are simulated collectively taxed. Additional wages for night work, Sunday work and bank holiday work, and payment for additional hours could not be identified in EUROMOD. The exemption of 30% of the wage of agricultural worker is simulated like an allowance in EUROMOD.

2.7.2   Tax allowances

Here, we define tax allowances as any amount subtracted from pre-tax income (including social insurance contributions). Unlike Verbist (2004), there is no distinction between those that are fixed amounts (tax allowances) and those whose level is a function of pre-tax income (deductions).

There are many allowances in the Luxembourg income tax regime. According to the data available in the input data, it is impossible to simulate all of them. The table below presents the main allowances present in the personal income tax regime. Three types of allowances can be distinguished: acquisition costs, special expenses and allowances.

Acquisition costs (*frais d'obtention)* correspond to expenses in order to earn income. For wage earners, the acquisition costs correspond to a lump-sum of € 540/year (this lump-sum can be replaced by the allowable expenses if they are higher – no information about allowable expenses in Euromod, hence basic lump-sum is used-) and travelling costs: a minimum of € 0/ and a maximum of € 2,574/year depending on the distance home-workplace (no information about the distance home-workplace in Euromod, hence the minimum is used). For recipients of pensions, the acquisition costs correspond to a lump-sum of € 300/year. When married couples jointly taxed receive each one a wage and/or a pension, the two members of the couple are entitled to these acquisition costs. For persons having income form a movable asset, acquisition costs correspond to a lump-sum of € 25/year (doubled in case of joint taxation). These three acquisition costs can be cumulated by the same taxpayer.

The acquisition costs for rental income correspond to 35% of the gross annual rentals. The rental value of a dwelling occupied by an owner-occupier is regarded as taxable (the value of the rent is calculated by the tax administration. The value is unknown in Euromod but it is very low) and the interest repayments on mortgage for the acquisition of the dwelling are considered as acquisition costs. Since 2017, these costs were fixed per annum per family member for the first five years of occupation at € 2,000, for the next five years at € 1,500 and for the next years at € 1000 (no information about the year of occupation in Euromod – we use the value that corresponds to 6-10 years of occupation).

Source: https://impotsdirects.public.lu/fr/az/f/frais_obten.html   and https://guichet.public.lu/fr/citoyens/logement/acquisition/aides-indirectes

*EUROMOD modelling***:** For allowance resulting from a rent, we simulate only Social assistance. The allowance for travelling costs is not simulated due to lack of data (distance home-workplace). We keep the mid-amount of deduction in interest repayments on mortgage for the main residence because the information about duration of occupancy is not available in the data.

Special expenses *(dépenses spéciales)* correspond to the compulsory social contributions (except social contributions for long- term care insurance) and other expenses. They are several other expenses but all taxpayers benefit at least from a lump-sum of € 480/year without any justification (time two in case of joint taxation and both members of the couple have a salaried occupation). In case of higher expenses than the lump-sum, taxpayers can deduct the amount of the expenses instead the lump-sum (no information about expenses in Euromod – lump-sum is used). Next to the lump-sum, other expenses can be deducted. The most common are :

i) interest expenses (excluded the mortgage interests of the main residence that are considered as acquisition costs – see above) and

ii) insurance payment merged into a single category since 2017 up to € 672/year (amount increased by its own amount for the spouse and for each child in the household),

iii) private pension contributions (3rd pillar) up to € 3,200/year since 2017 (the age is not considered anymore) and

iv) maintenance payments up to € 24,000/year since 2011.

Source: https://impotsdirects.public.lu/fr/az/d/depens_spe.html

*EUROMOD modelling***:** Deductions for interest expenses and insurance payment are not simulated because the information is not available in the data.

Other allowances *(abattements)* are obtained to reduce the taxable income. The most common allowances are :

i) allowance for extraordinary burden (childcare costs, domesticity costs…); the allowance is maximum equal to € 5,400/year and cannot exceed the real costs (no information about these costs in EUROMOD – not simulated),

ii) Extra-professional allowance equal to € 4,500/year applicable to married couples jointly taxed if both of them are working (wage earners or self-employed) and

iii) 50% of pensions from private pension plans (3rd pillar).

*EUROMOD modelling***:** Allowance for extraordinary burden is not simulated because the information is not available in the data.
It is the same for transfer or termination allowance.

Table 35. Other Allowances yearly amounts (2021-2024)

Allowances *(yearly amounts, in €)*		2021-2024
Acquisition costs *(Frais d'obtention)*		
Income from a salaried occupation*		540
Income resulting from a pension or a rent (like REVIS)*		300 (x2 for spouses collectively taxed)
Income from a movable asset*		25 (x2 for spouses collectively taxed)
*These 3 acquisition costs can be granted to the same taxpayers if he receives incomes from these 3 categories		
Travelling costs (depending on the distance home-workplace)	Min	0
	Max	2,574
Rental income		35% of the rent
	Max	2,700 per building
Interest repayments on mortgage for the main residence	1-5 years after first occupation	2,000 per member of the HH
	6-10 years after first occupation	1, 500 per member of the HH
	11 and more years after first occupation	1,000 per member of the HH

Special expenses *(Dépenses spéciales)*

Compulsory social contributions (except social contributions for long- term care insurance)		No limit
For lack of higher expenses, lump-sum (times two in case of joint taxation and both members of the couple have a salaried occupation)		480
Interest expenses & insurance payment (amount multiplied by the number of persons in the tax unit)		672
Private pension contributions	Max	3,200 independent of age
Maintenance payment (*)	Max	24,000

Allowances *(Abattements)*

Allowance for extraordinary burden (childcare costs, domesticity costs…); the allowance cannot exceed the real costs	5,400
Extra-professional allowance	4,500
Transfer or termination allowance	10,000
Pensions from private pension plans (3rd pillar)	50% of the pension

Notes: Allowances in grey could not be implemented in the simulation

(*) These are paid amounts ; private inter-households transfers (received) are part of taxable income (included in "other net income", see *Section 1.4*) up to a maximum level identical to the one mentioned here for maintenance payments

Source: https://impotsdirects.public.lu/fr/az/d/depens_spe.html

2.7.3 Tax base

The tax base is called "income to tax according to the schedule" *(revenu à imposer suivant barème),* which is equal to the sum of the eight categories of taxable income:
- Commercial/business profits,
- Profits from agriculture and forestry,
- Profits derived from self-employed professions (*profession libérale*),
- Net income from employment,
- Net income from pensions and/or annuities,
- Net income from investments (movable capital),
- Net income from rental of property,
- Other net income (including capital gains).

By net income we mean the difference between the receipts and the costs of obtaining these receipts *(dépenses d'exploitation et frais d'obtention)* (for example, travelling costs). Social contributions except for social contributions for long-term care and several allowances *(dépenses spéciales et abattements)* are finally deducted from the net income to obtain the adjusted tax base.

2.7.4 Tax schedule

In 2017, the tax brackets and marginal tax rates have been significantly reshaped, with a maximal rate of 42% for annual incomes greater than € 200,004. The tax schedule has been readjusted in 2024 allowing a tax reduction of around 10%, with a maximal of 42% for annual incomes greater than € 220,788.

For taxpayers in tax class 1, tax is determined by applying the tax schedule presented in the table below to the adjusted taxable income (ATI).

For taxpayers in tax class 1a, there are two possibilities:
- For an ATI greater than € 45,000 per year, the tax is on the entire ATI;
- For an ATI lower than € 45,000 per year, half of the difference between the ATI and the threshold of € 45,000 is subtracted from the net salary. It is this new amount that will be taken into account for the tax schedule.

For taxpayers in tax class 2, tax is determined by applying the tax schedule presented in the table below to the ATI divided by 2 and then the tax obtained is multiplied by 2.

Finally, a surcharge is added as a contribution to the unemployment fund (see *Section 1.4*). This surcharge is fixed to 7% if yearly adjusted tax base (*revenu ajusté*) is lower than € 150,000 for tax classes 1 and 1a or € 300,000 for tax class 2. In other cases, the surcharge is 9%.

Table 36. Tax schedules (2021-2024)

Years	2021-2023			2024	
Bracket number	Lower Limit (€/year)	Upper Limit (€/year)	Rate	Lower Limit (€/year)	Upper Limit (€/year)
1	0	11,265	0%	0	12,438
2	11,265	13,137	8%	12,439	14,508
3	13,137	15,009	9%	14,508	16,578
4	15,009	16,881	10%	16,578	18,648
5	16,881	18,753	11%	18,648	20,718
6	18,753	20,625	12%	20,718	22,788
7	20,625	22,569	14%	22,788	24,939
8	22,569	24,513	16%	24,939	27,090
9	24,513	26,457	18%	27,090	29,241
10	26,457	28,401	20%	29,241	31,392
11	28,401	30,345	22%	31,392	33,543
12	30,345	32,289	24%	33,543	35,694
13	32,289	34,233	26%	35,694	37,845
14	34,233	36,177	28%	37,845	39,996
15	36,177	38,121	30%	39,996	42,147
16	38,121	40,065	32%	42,147	44,298
17	40,065	42,009	34%	44,298	46,449
18	42,009	*43,953*	36%	46,449	*48,600*
19	*43,953*	45,897	38%	*48,600*	50,751
20	*45,897*	100,002	39%	*50,751*	110,403
21	100,002	150,000	40%	110,403	165,600
22	150,000	200,004	41%	165,600	220,788
23	200,004		42%	220,788	

Source: https://impotsdirects.public.lu/fr/az/t/tarif_pers.html

2.7.5 Tax credits

Since 2009, four refundable tax credits were introduced by the Government (to replace former tax allowances): the tax credit for employees *(crédit d'impôt pour salaries, CIS)*, the tax credit for the retired *(crédit d'impôt pour pensionnés, CIP)*, the tax credit for the self employed *(crédit d'impôt pour travailleurs indépendants, CII)* and the tax credit for lone parents *(crédit d'impôt monoparental, CIM)*.

In 2019 was introduced the tax credit for social minimum wage *(crédit d'impôt salaire social minimum, CISSM)* and from middle 2022 until the end of the first quarter of 2023, all workers and pensioners received a tax credit for energy *(credit d'impôt énergie, CIE)* to lessen the impact of the sudden rise in energy prices.

At last in mid-2023, a tax credit for conjuncture was established (covering the whole year retroactively) to compensate the tax increase caused by each index which is greater than the increase in net salary. It disappeared in 2024 and replaced by the new and more advantageous tax schedule.

A new tax credit for CO2 is introduced in 2024, to compensate families and retirees whose incomes are lower after the increase of the CO_2 tax.

All these tax credits policies have been implemented in the model:

- **Tax credit for employees, CIS** *(tintcee_lu):* the unit of analysis is the individual *(tu_individual_lu).*
  Since 2017, the amount of tax credit for employees varies with the employee's annual gross income.
  For a gross income amounting:
  - between € 936 and € 11,265: the amount is [396+(gross income -936)*0.029] euros per year from 2021 to 2023 and [300+(gross income -936)*0.029] euros per year until 2024,
  - between € 11,266 and € 40,000: the amount is € 696 per year from 2021 to 2023 and € 600 per year in 2024,
  - between € 40,001 and € 79,999: the amount is [696-(gross income -40,000)*0.0174] euros per year from 2021 to 2023 and [600-(gross income -40,000)*0.015] euros per year in 2024,
  - lower to € 936 or exceeding € 80,000, the amount is 0.

  Source: https://impotsdirects.public.lu/fr/az/c/credit-impot-salaries.html

  EUROMOD modelling: The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

- **Tax credit for self employed, CII** *(tintcse_lu)*: the unit of analysis is the individual *(tu_individual_lu).*
  Since 2017, the amount of tax credit for self-employed depends on annual net profit.
  For a net profit:
  - lower to € 936, the amount is € 396 per year from 2021 to 2023 and € 300 in 2024,
  - between € 936 and € 11,265: the amount is [396+(net profit -936)*0.029] euros per year from 2021 to 2023 and [300+(net profit -936)*0.029] euros per year in 2024,
  - between € 11,266 and € 40,000: the amount is € 696 per year from 2021 to 2023 and € 600 in 2024,
  - between € 40,001 and € 79,999: the amount is [696-(net profit -40,000)*0.0174] from 2021 to 2023 and [600-(net profit -40,000)*0.015] euros per year in 2024,
  - exceeding € 80,000, the amount is 0.

  This tax credit cannot be cumulated with tax credit for employees and retired.

Source: https://impotsdirects.public.lu/fr/az/c/CII.html

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

- **Tax credit for retired, CIP** *(tintcpe_lu)***:** the unit of analysis is the individual *(tu_individual_lu).*
Since 2017, the amount of tax credit for retired varies with the annual gross pension.
For a gross pension amounting:
- between € 0 and € 936 : the amount is € 396 per year from 2021 to 2023 and € 300 in 2024,
- between € 936 and € 11,265 : the amount is [396+(gross pension -936)*0.029] euros per year from 2021 to 2023 and [300+(gross pension -936)*0.029] euros per year in 2024,
- between € 11,266 and € 40,000 : the amount is € 696 per year from 2021 to 2023 and € 600 in 2024,
- between € 40,001 and € 79,999 : the amount is [696-(gross pension -40,000)*0.0174] euros per year from 2021 to 2023 and [600-(gross pension -40,000)*0.015] euros per year in 2024,
- exceeding € 80,000 the amount is 0.

This tax credit cannot be cumulated with tax credit for employees or self-employed.

Source: https://impotsdirects.public.lu/fr/az/c/CIP.html

EUROMOD modelling: The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

- **Tax credit for CO2, CI-CO2** *(tintco2ee_lu, tintco2cse_lu, tintco2pen_lu)***:** the unit of analysis is the tax household.
Introduction in 2024 as an answer of the increase of the CO2 tax, this tax credit is composed since then as follows:
For <u>employees</u> the amount is based on the yearly gross income.
For a gross income/pension amounting:
- between € 936 and € 40,000: the amount is € 168 per year,
- between € 40,001 and € 79,999: the amount is [168 – (monthly gross income – 40,000) x 0.0042] euros per year.

For <u>self-employed</u> the amount is based on the net profit.
For a net profit amounting:
- between € 936 and € 40,000: the amount is € 168 per year,
- between € 40,001 and € 79,999: the amount is [168 – (net profit – 40,000) x 0.0042] euros per year.

For <u>pensioners</u>, the pension is used in the calculation.
For a pension amounting:
- between € 300 and € 40,000: the amount is € 168 per year,
- between € 40,001 and € 79,999: the amount is [168 – (pension – 40,000) x 0.0042] euros per year.

Source: https://impotsdirects.public.lu/fr/az/c/credit-impot-salaries/cis2024.html and https://impotsdirects.public.lu/fr/az/c/CII/credit-indep-2024.html and https://impotsdirects.public.lu/fr/az/c/CIP/cip2024.html.

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

- **Tax credit for lone parent, CIM** *(tintclp_lu)***:** the unit of analysis is the tax household *(tu_tin_lu).*
  Since 2017 until 2022, the maximum amount of the tax credit for lone parent was € 1,500 for single-parent taxpayers who have an adjusted taxable income less than € 35,000.
  From an adjusted taxable income exceeding € 35,000 the tax credit decreases linearly from € 1,500 to reach the amount applicable before 2017 (€ 750) as soon as the adjusted taxable income is € 105,000. The computation is (in €): 1,875 - adjusted taxable income * 750 / 70,000.
  In 2023, it was increased by more than 65% to reach € 2,505 for an adjusted taxable income less than € 60,000.
  From € 60,000 to € 105,000, the calculation is [2,505 - (adjusted taxable income – 60,000) x 0.039].
  Beyond € 105,000, the tax credit is € 750 as before.

  Source: https://impotsdirects.public.lu/fr/az/c/cim.html

  *EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

- **Tax credit for social minimum wage, CISSM** *(tintsmw_lu)***:** the unit of analysis is the tax household.
  Introduced in 2019, this tax credit allow the revaluation of the minimum wage.
  The amount is calculated from the monthly gross income, or the fictive gross income for part-time (gross income x full-time hours/part-time hours).
  Until 2022, for a gross income amounting:
  - between € 1,500 and € 2,500 (€ 1,800 and € 3,000 since 2023): the amount is € 70 per month,
  - between € 2,500 and € 3,000 (€ 3,000 and € 3,600 since 2023): the amount is [70/500 x (3,000-gross income)] euros per month ([70/600 x (3,600-gross income)] since 2023),
  - lower to € 1,500 or exceeding € 3,000 (€ 1,800 and € 3,600 since 2023), the amount is 0.

  In case of part-time, the CISSM is calculated on the basis of a fictive gross monthly salary, which corresponds to the salary that the employee would have earned if he had been employed for the whole month, full-time under the same conditions of remuneration:
  Fictive gross monthly income = gross monthly income x full-time hours/part-time hours.
  The corresponding CISSM amount is granted only up to the ratio between the real hours of work and the number of full-time hours: *CISSM amount* x *part-time hours/full-time hours*.

  Note: we used the weekly standard hours worked instead of the monthly hours worked because of data availability.

  Source: https://guichet.public.lu/fr/entreprises/fiscalite/impots-revenus/credit-impot-salaire-social-minimum.html and
  https://impotsdirects.public.lu/fr/az/c/credit-impot-salaire-social-minimum.html

  *EUROMOD modelling***:** For the part-time case, the fictive gross monthly salary is calculated using the weekly standard hours worked instead of the real hours worked by month (each month has different hours worked) which are not available in the data.

- **Tax credit for energy, CIE** *(tintengee_lu, tintengcse_lu, tintengpen_lu)***:** the unit of analysis is the tax household.
  In application from August 2022 to March 2023, this tax credit is composed since then as follows:
  For employees and pensioners the amount is based on the monthly gross income/pension.
  For a gross income/pension amounting:
  - between € 78 and € 3,667: the amount is € 84 per month,

- between € 3,667 and € 5,667: the amount is [84 – (monthly gross income – 3,667) x (8/2,000)] euros per month,
- between € 5,667 and € 8,334: the amount is [76 – (monthly gross income – 5,667) x (76/2,667)] euros per month.

For <u>self-employed</u>, the net profit is used in the calculation.
For a net profit amounting:
- between € 936 and € 44,000 : the amount is € 84 x N per year, where N is the number of months between the first month of income (counting starting in May) and the end of the year in 2022 (€ 252 per year in 2023),
- between € 44,001 and € 68,000 : the amount is [N x 84 – (net profit – 44,000) x (N x 8/24,000)] euros per year in 2022 ([252 - (net profit – 44,000) x (24/24,000)] euros per year in 2023),
- between € 68,001 and € 100,000 : the amount is [N x 76 – (net profit – 68,000) x (N x 76/32,000)] euros per year in 2022 ([228 - (net profit – 68,000) x (228/32,000)] euros per year in 2023).

Source: https://impotsdirects.public.lu/fr/az/c/credit-impot-energie.html

EUROMOD modelling: The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

- **Tax credit for conjuncture, CIC** *(tintceecon_lu, tintcpencon_lu, tintcsecon_lu)*: the unit of analysis is the tax household.
  Applied only one year, in July 2023 (but covering the whole year retroactively) to compensate the equivalent of two index brackets (each index causes a tax increase greater than the observed increase in net income), this tax credit is composed as follows:
  For <u>employees</u> and <u>pensioners</u> the amount is based on the monthly gross income/pension.
  For a gross income/pension amounting:
  - lower to € 1,125, the amount is 0,
  - between € 1,125 and € 1,250: the amount is [(monthly gross income – 1,125) x (4/125)] euros per month,
  - between € 1,250 and € 2,100: the amount is [(monthly gross income – 1,250) x (3/850) + 4] euros per month,
  - between € 2,100 and € 4,600: the amount is [(monthly gross income – 2,100) x (37/2,500) + 7] euros per month,
  - between € 4,600 and € 9,500: the amount is € 44 per month,
  - between € 9,500 and € 9,925: the amount is [(monthly gross income – 9,500) x (4/425) + 44] euros per month,
  - between € 9,928 and € 14,175: the amount is € 48 per month,
  - between € 14,175 and € 14,916: the amount is [(monthly gross income – 14,175) x (3/356) + 48] euros per month,
  - exceeding € 14,916: the amount is € 54.25 per month

  For <u>self-employed</u>, the net profit is used in the calculation.
  For a net profit amounting:
  - lower to € 13,500, the amount is 0,
  - between € 13,500 and € 15,000: the amount is [(net profit – 13,500) x (4/125)] euros per year,
  - between € 15,000 and € 25,200: the amount is [(net profit – 15,000) x (3/850) + 48] euros per year,
  - between € 25,200 and € 55,200: the amount is [(net profit – 25,200) x (37/2,500) + 84] euros per year,
  - between € 55,200 and € 114,000: the amount is € 528 per year,

- between € 114,000 and € 119,100: the amount is [(net profit – 114,000) x (4/425) + 528] euros per year,
- between € 119,100 and € 170,100: the amount is € 576 per year,
- between € 170,100 and € 179,000: the amount is [(net profit – 170,100) x (3/356) + 576] euros per year,
- exceeding € 179,000: the amount is € 651 per year

Source: https://impotsdirects.public.lu/fr/az/c/credit-impot-conjoncture.html

*EUROMOD modelling***:** The policy can be fully simulated in EUROMOD, without any particular data or modelling limitations.

2.8   Consumption taxes

Consumption taxes simulated in EUROMOD can be divided in two groups: VAT (value added tax) and excises (additional duties paid over consumption, typically on energy, alcoholic beverages, and tobacco).

Simulated consumption tax liabilities paid by households depend on the tax rules (e.g. the VAT rate) and on the tax base (consumption expenditures or quantities). This is why, to simulate consumption taxes in EUROMOD, the input data must contain information on household expenditures. The expenditures matched in the EUROMOD input files based on SILC are reported directly by households in the HBS surveys at purchasing prices. Therefore, they already include the consumption taxes paid.

 i) **VAT** (il_tva variable in EUROMOD) is the value-added tax. The model also simulates at high disagregation level the VAT liabilities paid for each consumption category (output variables are tva01111, tva01112, and so on and so forth, corresponding to COICOP codes 01111 and 01112, etc.)

ii) **Excises** (il_tx variable in EUROMOD) are additional duties paid over consumption and can be classified in two groups: ad-valorem excises (il_txv) that depend on producer prices, and of specific or ad-quantum excises (il_txa) that depend on consumed quantities.

 Since consumption data from HBS refers to expenditures (price x quantity), for the simulation of specific excises information on consumption prices are needed.

Further information on methodology and specific calculations and the independence of these consumption taxes is common across countries (this is why they are placed in an add-on and not in the policy spine of each country) and can be found in Akzogu et al (2020).

2.8.1   VAT (il_tva)

To extract the baseline VAT embedded in this reported consumption we only need the VAT rate of the policy system year. VAT rates usually do not vary too much across product, and are typically 3 rates (standard, reduced and zero), although in some countries there are more like in Luxembourg where there is also an intermediate rate and a super-reduced:
- Standard rate (the lowest standard VAT rate in the European Union) applies for all goods and services for which no exemption,
- Intermediate rate (e.g. some types of wine, certain types of fuel and other means of energy, advertising brochures, management and custody of credit guarantees),
- Reduced rate (e.g. some types of energy (such as electricity and gas), plants and other floricultural products, bicycle repair services, shoes and other leather products, cleaning, hairdressing),

- Super-reduced rate (e.g. good products, pharmaceuticals, books, magazines and newspapers, children's clothing and shoes, restaurant services, passenger transport and admission to cultural events).
- Exempted supplies such as doctor's and dentist's services, postal services, education, cultural services and sport activities, and financial and insurance transactions

<div align="center">

VAT rates (2021–2024)

</div>

Products	2021	2022	2023	2024
Standard3	17%	17%	16%	17%
Intermediate	14%	14%	13%	14%
Reduced	8%	8%	7%	8%
Super-reduced	3%	3%	3%	3%
Zero	0%	0%	0%	0%
Exempted4	-	-	-	-

Luxembourg government reduced the VAT rates in 2023 to compensate the inflation.

2.8.2 Ad-valorem excises (il_txv)

Ad-valorem excises cover only tabacs products.

Table 37. Ad-valorem excise rates (2021–2024)

	2021	2022	2023	2024
Cigarettes	46.65%	46.65%	48.04%	48.08%
Cigars/cigarillos	10%	10%	10%	10%
Fine cut tobacco and other tobacco	33.75%	33.75%	35.10%	35.10%

Source: https://douanes.public.lu/content/dam/douanes/fr/accises/taux-accises-lu-01052024.pdf
https://douanes.public.lu/content/dam/douanes/fr/accises/taux-accises-lu-01072023.pdf
https://douanes.public.lu/content/dam/douanes/fr/accises/Taux-Accises-LU-2022.pdf
https://douanes.public.lu/content/dam/douanes/fr/accises/Taux-Accises-LU-2021-123.pdf

2.8.3 Specific excises (il_txa)

Specific excises apply to tabacs products.

In this case, both tax rates and prices are collected, in order to allow the model to estimate the implicit quantities behind the reported household consumption expenditure amounts.

Table 38. Specific (ad-quantum) excise rates (2021–2024)

	Unit	2021	2022	2023	2024
Cigarettes	€/1000units	19.14	19.39	20.14	20.64
Fine cut tobacco and other tobacco	€/kg	18.75	19.5	21	22.5

Table 39. Prices of Excise products (2021–2024)

	Unit	2021	2022	2023	2024[n]
Alcoholic beverages					
Beer $\leq$ 50.000 hl/year (=Cat.1)	€/hL	0.40	0.40	0.40	0.40
Beer $\leq$ 200.000 hl/year (=Cat.2)	€/hL	0.45	0.45	0.45	0.45
Beer $>$ 200.000 hl/year (=Cat.3)	€/hL	0.79	0.79	0.79	0.79
Intermediate products $\leq 15°$	€/hL	47.10	47.10	47.10	47.10
Intermediate products $> 15°$	€/hL	66.93	66.93	66.93	66.93
Surtax on prepared drinks	€/hL	600	600	600	600
Alcohols 100% vol.	€/hL	1,041.15	1,041.15	1,041.15	1,123.10
Energy					
Leaded petrol	€/1000L	569.90	580.71	591.52	602.33
Unleaded petrol	€/1000L	516.31	527.15	537.99	548.64
Gasoline - fuel	€/1000L	404.42	416.54	428.75	440.86
Gasoline - industrial use/comm	€/1000L	70.42	82.54	94.75	106.86
Gasoline - domestic fuel (heating)	€/1000L	63.55	76.89	90.34	103.73
Kerosene - fuel	€/1000L	378.51	390.64	402.77	416.74
Kerosene - industrial use/comm	€/1000L	69.51	81.64	93.77	107.74
Kerosene - combustible	€/1000L	58.51	70.64	82.77	96.74
Fuel lourd (combustible)	€/1000kg	76.92	92.40	107.88	123.36
LPG/Methane - fuel	€/1000kg	161.63	176.95	192.14	206.31
LPG/Methane - industrial use/comm	€/1000kg	97.17	112.49	127.68	141.85
LPG/Methane - combustible	€/1000kg	69.99	85.31	100.50	114.67
Coal and coke	€/1000kg	5	5	5	5
Natural gas - fuel	€/MWh	4	5	6.04	7.07
Natural gas - combustible					
Consumption $\leq$ 550 MWh/year (=Cat. A)	€/MWh	5.08	6.08	7.12	8.15
Consumption $>$ 550 MWh/year (=Cat. B)	€/MWh	4.54	5.54	6.58	7.61
Electricity					
Consumption $\leq$ 25 MWh/year (=Cat. A)	€/MWh	1	1	1	1
Consumption $>$ 25 MWh/year (=Cat. B)	€/MWh	0.5	0.5	0.5	0.5
Metal/mineral processes. (=Cat. C)	€/MWh	0.1	0.1	0.1	0.1

n: nowcasted

Consumer prices of goods subject to excise duties are nowcasted, similarly to what done with income data from SILC. We combine the latest available data from the following sources:

- Prices per product, usually from last year, but for instance, fuel prices have only 15 days delay.
- Inflation: Harmonised Index of Consumer Prices (HICP, Eurostat) at COICOP 5 digits, usually for the first quarter for beta release and up to third quarter 3 for final release.
- Inflation quarter-on-quarter forecasts (DG ECFIN, confidential) by HICP main groups (Unprocessed food, Processed food including alcohol and tobacco, Non-energy industrial goods, Energy, Services - overall index excluding goods) of quarters 2, 3 and 4, as needed for each release.

For more details on the specific source of the price of each good, see Akoguz et al (2020) and for the nowcasting method (document to be released based on Prices Excise Goods.docx).

The price of (indicate product) did not followed this general sources/nowcasting strategy but was sourced from (indicate source) because (indicate reason).

EUROMOD modelling: Consumption taxes (tco_cc policy) require extended EUROMOD input data (with imputed income shares of consumption expenditures at the household level) and an add-on to run. The policy is set to off in the baseline. To activate it, the CT_xbase add-on must be run, and the yyyy_x* type of input files (see Section 3 for more information on the methodology and features behind these extended input files) should be used (as defined in the database configuration of each country). The other add-ons (CT_*) can be used to undertake reform simulations, under the behavioural assumption of constant quantities (CT_XCQ), constant income shares (CT_XCIS) or constant expenditure shares (CT_XCES). Auxiliary output files are generated by running the first baseline simulation (as either the quantities or expenditures and savings from the baseline are kept constants and enter as inputs in the simulated reform scenarios).

2.9   (Social) Minimum Wage

Unless exceptional and specific agreements possible in some circumstances, wages are submitted to minimum rates in Luxembourg: € 2,201.93 /month for non-qualified wage-earners in 2021 for a full time (40 hours/week) job (€ 12.7279 /hour with a basis of 173 hours/month), € € 2,313.38/month in 2022, € 2,508.24/month in 2023 and € 2,570.93/month in 2024.

Those basic amounts are increased by 20% for qualified workers and also modulated based on the age of the wage-earner: 80% of the basic amount if aged 17 or 18, 75% of the basic amount if between 15- and 17-year-old.

The basic amount is defined as the "Social Minimum Wage/Income" *(salaire social minimum)*, hereafter "Minimum Wage" or "MW" and is also an important parameter for the tax-benefit system as a whole : several amounts are defined based on this MW : upper limit of the monthly old-age pension in the general scheme (5 times the MW), ceilings for social contributions, etc.

*EUROMOD modelling***:** Only the basic amount is simulated in EUROMOD.

3. DATA

3.1 General description

The underlying data base

This section outlines the foundation of the EUROMOD input data, derived from the Luxembourg segment of the European Union Statistics on Income and Living Conditions (EU-SILC 2022). Starting in 2016, the EUSILC sample has been sourced from the Luxembourg National Population Register (RNPP), which encompasses the entire population residing in Luxembourg. To minimize social interactions between households and interviewers during the COVID-19 crisis, the traditional face-to-face survey was not conducted in 2020. Instead, all addresses that participated in the 2019 survey were recontacted in 2020. Consequently, to restart the rotating panel in 2021, it was decided to renew 50% of the 2020 sample in 2021. Therefore, the sample for LU-SILC 2022 is composed of:
- 297 addresses that participated in the survey for the first time in 2019
- 1,594 addresses that participated in the survey for the first time in 2021
- 11,482 newly selected addresses in 2022, of which 2,020 responded to the survey

Regarding the EU-SILC, the original sample size for Luxembourg in 2022 was 15,029 households, but the actual sample achieved was 3,911 households. Until 2015, the sampling unit was the "fiscal" household; however, starting in 2016, the sampling unit shifted to individuals aged 18 or older. This significant change affects the EUROMOD input database and its outcomes compared to previous methods. Given the new methodological choices for sampling, the International Civil Servants ("ICS") rather numerous in Luxembourg in % of resident population (they represent around 4% of the resident active population and earn mid to high wages), are from now properly represented. This was not assured previously and conducted the EUROMOD Luxembourg national team to exclude from the input dataset and therefore from simulations and analyses all the households involving at least one ICS. Improved sampling now enables to keep those households in the input dataset. Of course, International civil servants ("ICS") are facing a tax-benefit system different from the national one (and certainly not implemented through EUROMOD at date) and we have no access to relevant external sources with regard to either their contributions to the social security systems at large (both national and international ones) or the benefits they are entitled to. Therefore, ICS households are not taken into account in the baseline scenario. However if one wishes to do so, they can now apply the national tax and benefit rules on those households. The survey takes place mostly in the first half of the year following the income reference year. The unit of assessment is the sociological household, defined as the persons living at the same address. In order to ensure more representative, the LU-SILC data are calibrated to external population benchmarks. The non-response rate for the total sample is 70.53%. Table 40 provides the descriptive statistics of EUROMOD database LU_2022_b1.

Table 40. EUROMOD database description

EUROMOD database	LU_2022_b1
Original name	EU-SILC wave 19
Provider	STATEC
Year of collection	2022
Period of collection	January 2022 to July 2022
Income reference period	2021
Sampling	Stratified sampling
Unit of assessment	Fiscal household
Coverage	Private households
Sample size	3,911 households and 15,029 persons aged 18 years and more
Response rate	83%

The Data Base on which the EUROMOD model is build is the combination of the user Data Base provided by Eurostat, and the "national" Data Base with more detailed, especially concerning the income components provided by STATEC.

Sample quality and weights

Sample weights are produced in order to infer from sample observations to the whole target population of EU-SILC that is, the private households and their current members currently residing within Luxembourg's national territory. These coefficients aim to reflect unequal probabilities of selection for the sampling units, differential non-response rates and are also calibrated to external benchmarks.

The calculation of sampling weights is a stepwise procedure whereby weight are first calculated for each sub-sample separately and then combine in order to obtain final weights for the whole sample.

Table 41. Descriptive statistics of the grossing-up weight

Number	9,038
Mean	68.52134
Median	38.95195
Maximum	1226.751
Minimum	0.04234
Max/Min	28973.80
Decile 1	0.77712
Decile 9	145.276
Dec 9 / Dec1	186.94

Note: the numbers in the table correspond to the adjusted dataset (see *Section 3.2*, Data adjustment).

3.2   Data adjustment

Adjustments to variables are kept to a minimum. Some minor data cleaning 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 the EUROMOD simulation is based), all children born between the end of the income reference period and the date of interview have been dropped from the sample. After having dropped the children born between the end of the income reference period and the date of interview (60 cases), the dataset contains 9,038 observations.

3.3   Imputations and assumptions

Time period

- Reference period of socio-demographic, labour, economic characteristics corresponds to the time of data collection (September-December 2022). However, some labour information (monthly main activity) corresponds to the time of income reference period (2021).
- Information on incomes refers to the calendar year 2021.
- For the following income components, information about how many number of months they were paid is present: employment income (*yemmy*), self-employment income

(*ysemy*), unemployment income (*bunmy*), fringe benefit (*kfbmy*), invalidity income (*pdimy*), old-age pension (*poamy*) and survivor pension (*psumy*).

Gross incomes

The EU-SILC survey contains information on both gross and net monetary incomes. Both incomes are collected during the fieldwork.

Disaggregation of harmonized variables

Since Luxembourg uses the national version of EU-SILC with detailed information on income components, no specific imputation has been done to disaggregate the income component present in the EU-SILC UDB.

In order to simulate the unemployment benefit, the variable *yempv* (previous year income) has been derived reversing the rule for the calculation of unemployment benefit.

3.4   Updating

To account for any time inconsistencies between the input dataset and the policy year, updating factors are used. Each monetary variable (i.e. each income component) is updated to account for changes in the non-simulated variables that have taken place between the year of the data and the year of the simulated tax-benefit system. Updating factors are generally based on changes in the average value of an income component between the year of the data and the policy year. For detailed information about the construction of each updating factor as well as the sources that have been used, see Annex 1 (and DRD).

Updating factors are provided for non-simulated monetary components present in the input dataset only. No other updating adjustments are employed. Thus, the distribution of characteristics (such as employment status and demographic variables), and the distribution of each income source that is not simulated, remain as they were in 2021.

3.5   Extended input data (with household expenditures for the simulation of consumption taxes)

For the simulation of consumption taxes, the model needs to be run with extended EUROMOD input files. They consist of the core EUROMOD input files based on EU-SILC or National SILC, extended with new variables (household-level income shares of expenditures by product) imputed from EU/National-HBS. The semi-parametric method implemented for the imputation follows the methodology developed by Akoğuz et al (2020).

Table 42 summarizes the major features of the most recent database used to be run with the policy systems of 2021-2024.

Table 42. Extended EUROMOD database description

Extended EUROMOD database for the simulation of consumption taxes	**SILC 2022 – Income year 2021 – Expenditures from HBS 2015**
EUROMOD database	LU_2022_b1_2015_03_e2
Year of collection (HBS) and source	HBS 2015 – EU/National
Year of collection (SILC) and source	SILC 2022 – EU/National
Coverage and sample size	3.911 households (9.098 individuals)
Share of households with negative incomes excluded from the matching procedure	0.0049%

These extended EUROMOD files contain all the variables included in the standard EUROMOD input files plus the income shares of each consumption category included in HBS. For example, for countries with consumption disaggregation at 4 COICOP level (5 digits), there will be close to 200 additional variables, each one with the income shares of expenditure (household level) for that particular consumption category (e.g. starting from the income share of rice consumption: xs_01111; bread: xs_01112, and so on and so forth). The number of additional variables depends on the granularity available in HBS, and it varies across countries).

For the case of CNT (Luxembourg), data LU_2022_b1_2015_03_e2, the number of variables included (income shares of expenditures, xs_c*) are 193, corresponding to the harmonized consumption categories defined at COICOP [2003] level 4 (five digits)

This database is an extension of the core EUROMOD input database, and so it is based on the same sample (i.e., same identifiers "idperson" and "idhh" to identify persons and households, respectively) and contains the same variables plus the income shares of expenditure (xs_* variables).

In Table 43 we present the share of households' consumption expenditures by product (and total) captured in our matched databases (extended EM input files) with respect to the original reported expenditures in HBS. The column that refers to the same year (in this case, HBS 2015 with Extended EM Input 2015) directly depends on the quality of the imputation procedure, while the comparison across different years is influenced not only by the matching noise but also by the changes in population characteristics and in the underlining distribution of income. Therefore, the coverage displayed in the second column is just informative but is not and should not be used to evaluate nor validate the imputation procedure.

Information on the coverage of these simulated expenditures (coming from the imputation of HBS 2015 to more recent SILC-based data) with respect to the expenditures reported by National Accounts is included in section 4 of this report, together with the other macro-validation results.

Below we summarize the main findings from the imputation validation checks for LU.

Table 43. Extenditure coverage of Extended EM Input files

COICOP group	HBS 2015 – Extended EM Input 2015	HBS 2015 – Extended EM Input 2022
1	90.9%	121.6%
2	90.3%	127.3%
3	94.8%	120.7%
4	89.2%	119.9%
5	95.7%	128.6%
6	94.6%	134.8%
7	90.8%	124.8%
8	91.0%	110.9%
9	93.2%	114.1%
10	104.8%	85.4%
11	95.0%	125.4%
12	99.7%	129.9%
Total	94.2%	120.3%

4. VALIDATION

4.1. Aggregate Validation

EUROMOD results are validated against external benchmarks. Detailed comparisons of the number of people receiving a given income component and total yearly amounts are shown in Annex 3. Both market incomes and simulated/non-simulated taxes and benefits are validated against external official data.

Often, the results are good. The main discrepancies between EUROMOD results and external benchmarks are discussed in the following Sections. The discrepancies observed between the EUROMOD and external sources numbers can be partially explained by seven main factors:

i)   persons living in collective households are present in external sources and not in EUROMOD,

ii)   the definition of some income components may differ slightly from one source to another,

iii)   for some components, we had to hypothesise concerning the share of resident recipients and the % expenditure/revenue concerning specifically residents,

iv)   income variables in external administrative sources are sometimes indirectly derived from social contributions rather than directly registered/observed as in SILC data,

v)   a few income components are not well understood during the survey,

vi)   we hypothesize full take-up of some simulated benefits in EUROMOD Luxembourg (Expensive life allowance, Scholarship for Tertiary Education) and

vii)   a few employer health social contributions are involving payments to the so-called "*Mutualité des Employeurs*" for which no acceptable external source has been gathered yet by the EUROMOD national team.

4.1.1. Components of disposable income

The definition of disposable income in EUROMOD follows closely the EU-SILC definition. The minor differences are outlined in Table 44. Note that disposable income in EUROMOD is constructed using simulated components whenever possible.

Table 44. Components of disposable income

	EUROMOD 2022	EU-SILC [2022 / *income 2021*]
	ils_dispy	HY020
Employee cash or near cash income	+	+
Employer's social insurance contribution	0	0
Company car	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	+	+
Rent 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	+

Source: EUROMOD and EU-SILC (2022)

4.1.2. Validation of incomes inputted into the simulation

Tables A3.1 and A3.2 present a comparison between EUROMOD simulated and non-simulated number of recipients (thousands) and annual amounts (millions) of market incomes for the years 2021 to 2024 and external sources for the years 2021 and 2024. Ratio to external sources corresponds to EUROMOD numbers/amount divided by the numbers/amount from external sources. EUROMOD numbers of recipients are always the same for non-simulated variables because there are *no* demographic *updates after 2021*. No sufficient external data available for 2023 and 2024.

The number (see Table A3.1) of recipients of employee gross income simulated by EUROMOD is higher than in the external figures for the years 2021 and 2022 (25% for the year 2021 and 21% for the year 2022). However, the number of recipients of self-employment income in EUROMOD is lower than in the external figures (46% for years in 2021 and 47% for years in 2022). This is probably because self-employment income is insufficiently covered in EU-SILC and can be caused by an underreporting of self-employment incomes in households for whom it concerns only small amounts. Then again, the ratio (see Table A3.2) of the annual amount of employee gross income simulated by EUROMOD and in the external figures for year 2021and for year 2022 are 1.28 and 1.25 respectively. While the ratio about the annual amount of self-employed income are 0.66(for 2021) and 0.63 (for 2022).

4.1.3. Validation of taxes and social insurance contributions

Tables A3.3 and A3.4 present EUROMOD simulated and non-simulated number of payers (thousands) and annual amounts (millions) of taxes and social insurance contributions (SIC) for the years 2021 and 2022. Again, the ratio to external source corresponds to EUROMOD numbers divided by the numbers from external sources.

Most discrepancies observed between the EUROMOD and external sources can be explained by the factors listed in *Section 4.1*. Some of them are now illustrated for inputting incomes. For example, in Luxembourg external sources do not always provide taxes and social insurance contributions paid by residents and by non-residents. For some components, we had to hypothesise concerning recipients and the % revenue concerning residents only. For simulated taxes (tin_s) and the sum of the contributions for healthcare, we hypothesise that residents pay 65% of the income tax (the ratio between all kinds of resident "workers" and pensioners and the same population whatever the residence status). For other components, ratios are derived based on the target resident population/amount compared to the whole target population/amount. If unknown, a share is derived from similar components.

The simulations for the number of individuals paying social insurance contributions show a payer ratio of 1.14 for employees in 2021, and for employers, a ratio of 1.26 in 2021 and 1.21 in 2022. The simulations for self-employed social contributions, however, are underestimated by 33% in 2021. The personal income tax estimated in EUROMOD corresponds very well with the external sources. The ratios compared to external statistics are close, with values of 1.12 for 2021 and 1.10 for 2022. The discrepancies can largely be attributed to the following factors: 1) EU-SILC data includes information only on main residences; 2) income variables in external administrative sources are sometimes inferred from social contributions rather than being directly recorded, as is done in SILC data; and 3) EUROMOD Luxembourg assumes full take-up of several simulated benefits.

The EUROMOD simulation is an underestimation of the administrative data about the Total annual amounts (in millions) of Employer Contributions (ratio of 0.60 in 2021 and 0.59 in 2022) in Table A3.4.

4.1.4. Validation of benefits

Tables A3.5 and A3.6 present a comparison between EUROMOD simulated and non-simulated number (thousands) and annual amounts (million) of benefit recipients and external sources for the years 2021 to 2024. EUROMOD numbers of recipients are always the same (for non-simulated variables) in 2021-2024 as in 2021 (no demographic update). But the benefits figures are updated using the income updating factors. Most discrepancies observed between the EUROMOD and external sources can be explained by the factors listed in Section 4.1. Some of them are now illustrated for inputting incomes. For example, in Luxembourg the concept of early retirement (préretraite) coexists with the concept of anticipated retirement (retraite anticipée). These two concepts may explain why the number of recipients of the early retirement benefit is higher in EUROMOD than in external sources (Table A3.5). However, overall, the results are satisfactory. The ratio of simulation of parental leave benefits are underestimated to external statistics (ratio of 0.88 in 2021 and 0.81 in 2022). In 2021 and 2022, the numbers of recipients are over estimated by 27% and 20% respectively. In 2021 and 2022, the external statistic also includes information on COVID-19-related parental leave benefits. This can partly explain the difference between the simulated and the external figure. The validation of the annual amounts of benefits is shown in Table A3.6. The ratio (EUROMOD statistics/external statistics) of the annual amount of early retirement pension is 5.50 for 201 and 4.49 for 2022.

Differences in Gross sickness benefit (Indemnité brute de maladie), Parental leave allowances (Allocation de congé parental), and survivor pensions between EUROMOD and external sources are striking, maybe due to factor i), ii), and iii) mentioned in section 4.1 and part of survivors (mainly women) living in collective households.

The EUROMOD statistics about the number of recipients of the unemployment benefit is 28% lower than the external statistics for 2021 and 36% lower for 2022. A possible explanation are: 1) the information regarding the number of months spent in unemployment spell (Variable bunssmy) discontinued from SILC 2021 on; 2) the information regarding number of months spent in employed without unemployment spell is not collected in SILC 2022.

4.1.5. Validation of outputted (simulated) expenses

The validation of simulated expenditures used to model consumption taxes includes two types of comparisons: (1) simulated household consumption expenditures compared to expenditures collected by National Accounts (NA) of the same year; and (2) simulated consumption taxes (based on NA-adjusted simulated expenditures) compared to administrative data on consumption tax revenues.

Table A3.9 and A3.10 show the validation of consumption taxes related amounts. The top part of table A3.9 compares aggregate expenditure amounts from EUROMOD simulations with NA external statistics reported by EUROSTAT. As shown, the performance of COICOP level 1 is performs markedly well in relation to NA in categories such as "01 Food and non-alcoholic beverages", "03 Clothing and footwear", "04 Housing, water and fuel (exc. Imputed rent)", "05 Furnishings, household equipment, etc.". "07 Transport", "09 Recreation and Culture" and "11 Hotels and restaurants". Conversely, all other categories are under-simulated with the exception of "08 Communications". The remaining categories are all under-simulated. This is likely due to under-reporting of these categories in the original data (e.g. tobacco and alcohol).

The second part of Table A3.9 compares aggregate revenues from consumption taxes (i.e. VAT and excises) to external statistics from EUROSTAT. The bottom part of the table shows simulated aggregate revenue for some category of interest such as alcoholic drinks, tobacco and energy products. In Luxembourg, revenue from VAT and excises is markedly under-simulated. The simulation covers between 27% and 30% revenue from VAT and 16% from excises. When

looking at consumption taxes for specific items, the simulation significantly underestimates the government revenue of alcohol and tobacco products, which is consistent with the low coverage identified in relation to NA values. Conversely, consumption taxes for Energy (electricity, natural gas, coal-coke) appear significantly over-estimated. The discrepancies are partly due to the fact that the survey data underpinning the CT simulation are based on consumers declared consumption that may differ from the actual consumption (e.g. people misreport about how much they smoke and drink). To correct for this problem, EUROMOD provides also adjusted consumption aggregates, where the calibration/correcting factor is the ratio between NA aggregated expenditures and EM aggregated simulated expenditures level 1 at baseline. Effectively NA adjustment scales-up (or down) consumption and tax liabilities of all individuals. As a result, 36% to 37% of VAT and 37% of excises revenues are simulated in EUROMOD. When looking at specific items at lower COICOP details, the calibration also improves the estimation of government revenue although some discrepancies remain with respect to official statistics.

4.2. Income distribution

All income distribution results in Table A3.7 are based on individuals' household disposable income (HDI), which is equivalised using the "modified OECD" equivalence scale. HDI is calculated by summing all income sources from household members, net of income tax and social insurance contributions. The OECD equivalence weights are as follows:

- First adult: 1

- Additional members aged 14 or older: 0.5

- Additional members under 14: 0.3

Discrepancies between EUROMOD computations and EU-SILC ("external") estimates can be partly attributed to inconsistencies in the definitions of disposable income, specifically "ils_dispy" for EUROMOD and "hy020" for EU-SILC. Additionally, the coverage of input data for EUROMOD varies because international civil servants (who typically have higher incomes) are excluded from its input data. A third factor also plays a significant role, as explained below.

4.2.1. Income inequality

Figure A4.1 compares income inequality indicators generated by EUROMOD with those from an external source. The inequality measures (e.g., S80/20) produced by EUROMOD appear to be lower than the external figures (see Figure A4.1). This discrepancy may be partly due to the model's assumption of full take-up of social benefits. Additionally, the difference may stem from variations in target populations, as international civil servants are excluded from the EUROMOD simulations but included in the SILC data.

Figure A4.1. Distribution of Inequality Index during 2009 – 2022.
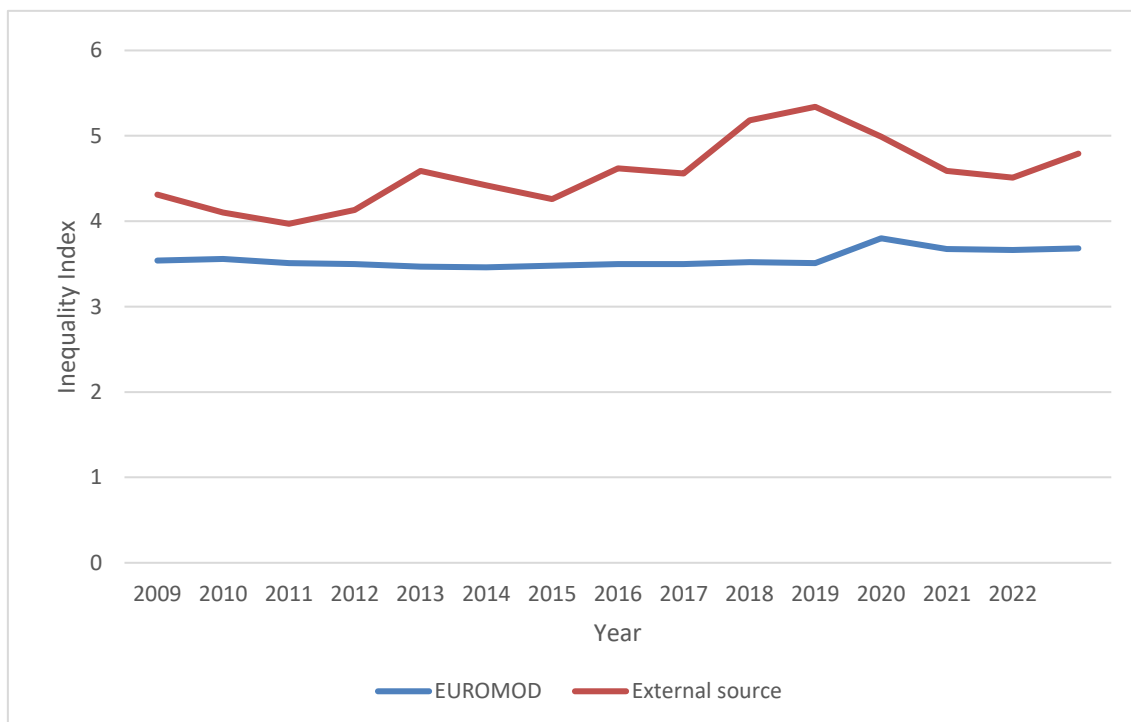
Source: EUROSTAT

4.2.2. **Poverty rates**

Figure A4.2. compares poverty rates generated by EUROMOD with the official poverty rates from EU-SILC 2009. The rates from EUROMOD are noticeably lower than those from SILC. This discrepancy can be explained similarly to the previous discussions, particularly considering the assumption of full take-up of social benefits as simulated in EUROMOD.

Figure A4.2. At-risk -of-poverty rates (%) (60% median of Household Disposable Income) during 2009 – 2022.
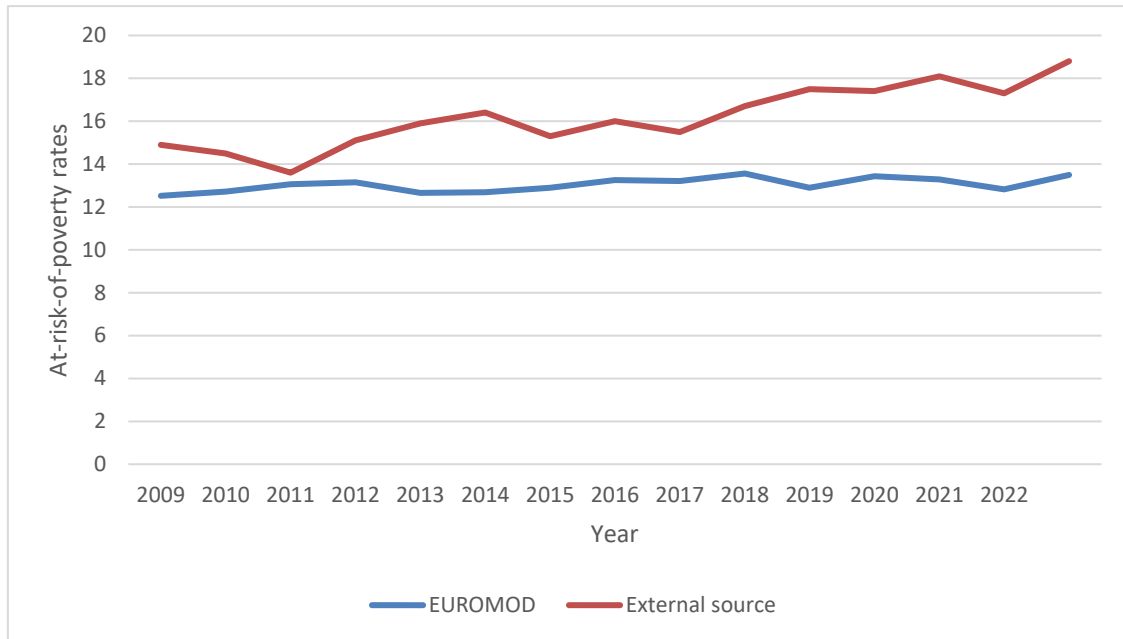
Source: STATEC

4.3. Summary

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

- The new procedure for building-up the EU-SILC dataset, including intermediary more disaggregated "national" variables, is since EU-SILC 2018 solely governed by the Luxembourg National Statistical Office (STATEC). Operational choices made can differ from past practices and this may induce some variability in outcomes compared to previous provisions by the EUROMOD Luxemburgish national team (close to some kind of rupture in statistical series that might be observed for specific variables, hence EUROMOD outputs).

- In particular and up to 2015, the sampling unit was the "fiscal" household, while sampling units in 2016 are individuals aged 18 or more. This is essential and implies a significant change for the EUROMOD input data basis (hence outcomes) compared to the previous provisions. Given the new methodological choices for sampling (see Section 3), the International Civil Servants ("ICS") rather numerous in Luxembourg in % of resident population, are from now properly represented, hence are kept in the input dataset. This representativeness was not assured previously and conducted the EUROMOD Luxembourg national team to exclude all the households involving at least one ICS.

- Of course, International civil servants ("ICS") are facing tax-benefit systems different from the national one (and certainly not implemented through EUROMOD at date) and we have no access to relevant external sources with regard either their contributions to the social security systems (both national and international) at large or the benefits they are entitled to. Therefore for the aggregate validation of the model all households involving at least one ICS have been dropped from the outcomes before comparisons to external sources.

- The input database contains only residents affiliated to the national social security system. That means that international civil servants who have their own social security system and their own tax system have been excluded from the sample. In Luxembourg, a small country with several international institutions, they represent around 4% of the resident active population. Care should be taken in comparing EUROMOD outputs with EU-SILC outputs. One must know that international civil servants earn mid to high wages.

- Around 40% of the labour force is composed by cross-border workers in Luxembourg. They are not included in the database because the sample covers only residents. Care should be taken in comparing some EUROMOD outputs with external statistics. External statistics do not always make the difference between residents and cross-border workers.

- External statistics about income tax are extremely rare in Luxembourg. It is impossible to know the numbers of persons or fiscal households who pay income tax and the aggregate amount of income tax does not make the difference between residents and cross-border workers. So, the validation for income tax is difficult to achieve.

o The simulation of consumption taxes sensitively depends on the quality of the match of the extended EUROMOD files, as well as on the frequency of this data and the gaps between the input data files and the policy systems. At this point, the most recent HBS data available for all countries (EU-HBS) is 2015.

o When the user runs a policy system year (e.g., 2024) that does not coincide with the incomes reported in the SILC-data used (e.g., 2022, with reported incomes from 2021), expenditures in EUROMOD are simulated under the constant income shares assumption (by default). This is because the income shares of expenditure included in the extended input files are not updated and remain constant regardless of the policy system that is used for the simulation. This means that a household that spends 10% of its income in food (e.g. the sum of all the xs_1* variables, i.e. xs01111, xs01112, and so on and so forth, is 0.10) will still spend 10% of their income in 2024, regardless of the change in incomes driven by the uprating factors and tax-benefit changes. This implicitly assumes an income elasticity of one.

The simulation of monetary compensation schemes (bwkmcee_s and yemmc_s) is triggered by the simulation of labour market transitions defined in policy TransLMA_lu. 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 2023/2024 to be higher than disposable income in previous years.

5. REFERENCES

Administration des Contributions Directes (2022): http://www.impotsdirects.public.lu

Administration De l'Emploi: Rapports annuels 2019, 2020 and 2021

http://www.adem.public.lu/fr/publications/index.php

Amétépé, F. (2012). The effectiveness of Luxembourg's minimum guaranteed income. International Social Security Review, 65(1), 99-116.

Bargain, O., Immervoll, H. & Viitamäki, H. (2012). No claim, no pain. Measuring the non-take-up of social assistance using register data. The Journal of Economic Inequality, 10(3), 375-395. doi:10.1007/s10888-010- 9158-8.

Beine M. et al (2020). "Health Risks and Economic Benefits from Lifting Containment Measures in Luxembourg". Working note; LISER, Luxembourg.

Callan, T. & Keane, C. (2008). Non-take-up of means-tested benefits: National Report for Ireland, Economic and Social Research Institute, Dublin.

Dubois, H. & Ludwinek, A. (2014). Access to benefits. Eurofound Working Paper, October 2014.

European Commission (2022): https://ec.europa.eu/social/home.jsp?langId=en

Eurostat (2022): https://ec.europa.eu/eurostat/data/database

Fonds National de Solidarité (2022): http://www.fns.lu/

Ministère des Finances: Rapports d'activité 2019, 2020 and 2021
https://mfin.gouvernement.lu/fr/publications.html

Ministère de la Sécurité Sociale (2022): Publications
https://mss.gouvernement.lu/fr/publications.html

Ministère de la Sécurité Sociale (2022): Base de données http://www.isog.public.lu

OECD (2022): http://stats.oecd.org/Index.aspx .

Service National d'Action Sociale (2022): http://www.snas.public.lu

STATEC (2022): https://statistiques.public.lu/fr/themes.html

Verbist, G. (2004) "Redistributive effect and progressivity of taxes An International Comparison across the EU using EUROMOD", EUROMOD Working Paper No. EM5/04.

ANNEX 1. UPRATING FACTORS

Table A1.1-Uprating factors values

Index	Constant name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Harmonised Index of Consumer Prices	$HICP	88.94	88.95	91.44	94.85	97.59	99.25	99.94	100	100.04	102.15	104.21	105.93	105.93	109.61	118.55	122.02	124.88
National Consumer Price index (IPCN)	$f_IPCN	108.61	109.01	111.49	115.29	118.37	120.42	121.18	121.75	122.1	124.22	126.12	128.31	129.37	132.63	141.04	146.32	149.35
Annual average of (former) pensions	$f_upr2	665.64	688.16	707.08	723.32	739.32	761	775.17	775.17	779.03	805.85	816.53	835.83	859.09	871.62	918.1	983.16	983.16
Annual average care allowance	$f_upr3	608.96	624.19	634.56	646.4	662.56	679.12	691.76	691.76	691.76	709.05	709.05	726.78	744.94	744.94	763.56	822.26	842.81
Annual average long term care allowance	$f_upr4	53.26	56.92	59.27	61.58	63.63	65.22	66.43	66.43	67.9	71.51	71.51	75.74	77.64	82.59	84.66	89.14	91.37
Annual average minimum wage	$f_upr5	1602.99	1675.92	1703.79	1768.54	1812.75	1885.9	1921.03	1922.96	1922.96	1998.59	2048.54	2089.75	2141.99	2201.93	2256.95	2508.24	2570.93
Annual average of the Cost of living allowance	$f_upr6	660	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1452	1652	1652	1652
Annual average minimum wage (lagged 1 year)	$f_upr7	1570.28	1602.99	1675.92	1703.79	1768.54	1812.75	1885.9	1921.03	1922.96	1922.96	1998.59	2048.54	2089.75	2141.99	2201.93	2256.95	2508.24
Stock market indices	$f_upr8	1990.6	1118.31	1384.13	1406.91	1145.93	1126.48	1545.86	1653.66	1399.4	1711.42	1590.1	1302.97	971.94	1562	1442.44	1439.28	1504.17
Annual sliding scale average (salary increase)	$f_upr9	682.39	699.44	711.07	724.34	742.44	761	775.17	775.17	775.17	794.54	802.82	814.4	834.76	839.98	871.66	921.63	921.63
No Uprating	$f_one	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Average hourly wage, Agriculture and Fishing (lindi = 1), units of national currency	$f_hourly_wage_lindi_1	15.873	16.7802	17.4594	18.018	18.4624	18.8091	19.0575	18.9189	18.9904	19.8598	20.3762	20.9818	21.2311	22.322	23.6167	25.3513	26.2513
Average hourly wage, Mining, Manufact. and Utilities (lindi = 2), units of national currency	$f_hourly_wage_lindi_2	26.9501	29.1501	28.3109	28.9985	29.8298	30.8435	30.3106	31.4231	31.7286	32.6184	32.8493	33.4847	33.8826	35.6237	37.6898	40.4581	41.8944
Average hourly wage, Construction (lindi = 3), units of national currency	$f_hourly_wage_lindi_3	21.2332	22.7438	22.6797	23.8409	24.493	25.3384	25.4879	25.4889	25.6968	26.4209	26.993	27.8751	28.2063	29.6557	31.3757	33.6802	34.876
Average hourly wage, Wholesale and retail (lindi = 4), units of national currency	$f_hourly_wage_lindi_4	23.4892	24.4329	24.8019	26.5028	27.1576	27.9419	29.1514	28.3926	28.1532	29.2104	29.5038	29.8476	30.2023	31.7542	33.596	36.0635	37.3439
Average hourly wage, Hotels and restaurants (lindi = 5), units of national currency	$f_hourly_wage_lindi_5	18.6291	19.3183	20.0385	21.8117	22.0539	22.5496	23.1196	22.9009	23.0605	23.774	23.8995	24.6682	24.9613	26.2439	27.766	29.8054	30.8636

Average hourly wage, Transport and communication (lindi = 6), units of national currency	$f_hourly_wage_lindi_6	31.2142	32.5017	33.0022	34.9801	35.0346	35.9209	37.0576	37.4832	37.5339	39.037	39.2154	40.1934	40.671	42.7609	45.241	48.5638	50.288
Average hourly wage, Financial intermediation (lindi = 7), units of national currency	$f_hourly_wage_lindi_7	51.2119	52.6839	55.6191	55.4782	56.5207	60.2374	60.4074	61.3853	62.5106	64.0659	66.723	67.0125	67.8088	71.2931	75.428	80.9681	83.8427
Average hourly wage, Real estate and business (lindi = 8), units of national currency	$f_hourly_wage_lindi_8	31.3404	33.1865	33.4762	36.3233	36.8903	38.0405	39.4625	39.9356	40.871	42.7926	44.9575	45.6232	46.1654	48.5375	51.3527	55.1245	57.0815
Average hourly wage, Public administ. and defence (lindi = 9), units of national currency	$f_hourly_wage_lindi_9	37.2842	38.8046	39.781	40.4832	41.1221	42.0941	43.6966	44.6935	44.8359	46.3717	48.6163	53.8816	54.5219	57.3234	60.6481	65.1027	67.414
Average hourly wage, Education (lindi = 10), units of national currency	$f_hourly_wage_lindi_10	41.2216	42.0613	44.8601	45.6486	46.7645	47.8586	49.2649	50.2036	50.4338	52.0565	55.4887	58.2211	58.913	61.9402	65.5326	70.3459	72.8434
Average hourly wage, Health and social work (lindi = 11), units of national currency	$f_hourly_wage_lindi_11	33.4699	34.5476	34.8016	35.4458	35.4582	36.0798	36.99	36.7319	36.7929	39.0361	40.9692	41.7586	42.2548	44.4261	47.0028	50.455	52.2463
Average hourly wage, Other (lindi = 12), units of national currency	$f_hourly_wage_lindi_12	22.9643	23.779	23.7987	25.0635	25.1468	26.0006	25.7663	26.0993	25.862	26.5763	27.5601	28.7135	29.0547	30.5477	32.3194	34.6932	35.9249
Average hourly wage, All NACE sectors, units of national currency	$f_hourly_wage	31.1679	32.5823	33.1706	34.4234	35.0585	36.3088	37.0001	37.3754	37.7188	39.1171	40.4703	41.5589	42.0528	44.2136	46.778	50.2138	51.9965

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Table A1.2-Usage and sources of uprating factors

Harmonised Index of Consumer Prices	$hicp		EUROSTAT; AMECO 2023 spring forecasts for 2023 values
National Consumer Price index (IPCN)	$f_ipcn	xhc, xhcmomi, xhcot, xhcrt, xmp, xpp, xed00 (2019, 2020, 2021, 2022, 2023, 2024), xhl00 (2019, 2020, 2021, 2022, 2023, 2024)	https://statistiques.public.lu/dam-assets/fr/donnees-autres-formats/indicateurs-court-terme/economie-totale-prix/E5010.xls
Annual average of (former) pensions	$f_upr2	bacpm, bdisv, pdi00, poacc, poacm, poamr, poaps, poapu, poawr, poaxp, psups, psupu, pdi, poa, psu, psupups, poapups	https://mss.gouvernement.lu/fr/support/recherche.html?q=param%C3%A8tres+sociaux&b=0 No value for 2024 (set equal to 2023)
Annual average care allowance	$f_upr3	bca01	https://mss.gouvernement.lu/fr/support/recherche.html?q=param%C3%A8tres+sociaux&b=0
Annual average long term care allowance	$f_upr4	bca02	https://mss.gouvernement.lu/fr/support/recherche.html?q=param%C3%A8tres+sociaux&b=0
Annual average minimum wage	$f_upr5		https://mss.gouvernement.lu/fr/support/recherche.html?q=param%C3%A8tres+sociaux&b=0
Annual average of the Cost of living allowance	$f_upr6	bsaht	https://mss.gouvernement.lu/fr/support/recherche.html?q=param%C3%A8tres+sociaux&b=0 No value for 2024 (set equal to 2023)
Annual average minimum wage (lagged 1 year)	$f_upr7	yempv, yempv_a, ymwdt, tscer	https://mss.gouvernement.lu/fr/support/recherche.html?q=param%C3%A8tres+sociaux&b=0
No Uprating	$f_one	afc, bched01, bched02, bched03, bched04, tad, tis, tpr, yds, yot, ypp, ypr, ypt, yse, ysv, kfb, kivho, kfbcc, ydses_o, bched05, yptmp	Factor for no-uprating
Average hourly wage, Agriculture and Fishing (lindi = 1), units of national currency	$f_hourly_wage_lindi_1	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Mining, Manufact. and Utilities (lindi = 2), units of national currency	$f_hourly_wage_lindi_2	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Construction (lindi = 3), units of national currency	$f_hourly_wage_lindi_3	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Wholesale and retail (lindi = 4), units of national currency	$f_hourly_wage_lindi_4	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Hotels and restaurants (lindi = 5), units of national currency	$f_hourly_wage_lindi_5	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Transport and communication (lindi = 6), units of national currency	$f_hourly_wage_lindi_6	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Financial intermediation (lindi = 7), units of national currency	$f_hourly_wage_lindi_7	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.

Average hourly wage, Real estate and business (lindi = 8), units of national currency	$f_hourly_wage_lindi_8	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Public administ. and defence (lindi = 9), units of national currency	$f_hourly_wage_lindi_9	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Education (lindi = 10), units of national currency	$f_hourly_wage_lindi_10	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Health and social work (lindi = 11), units of national currency	$f_hourly_wage_lindi_11	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, Other (lindi = 12), units of national currency	$f_hourly_wage_lindi_12	yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Average hourly wage, All NACE sectors, units of national currency	$f_hourly_wage	bmawk, bsaot, bunss, byr, yivwg, yem_a, bun, bsa, yem20_a, yem19_a, yem18_a, bsacm, yem	Computed from ESTAT tables nama_10_a64 (wages) and nama_10_a64_e (hours worked) up to 2019. The values for 2020-2022 are computed by multiplying the value of the previous year by the yearly increase of nominal compensation per employee, total economy, from AMECO.
Stock market indices	$f_upr8	yiy	
Annual salary increase in %	$f_upr9	bed, bfapl, bfauc, bhl, bho, bmaba, bmals, bfa	Annual sliding scale average. No value for 2024 (set equal to 2023)

ANNEX 2. POLICY EFFECTS IN 2022-2023

Table A2 and Figure A2 illustrate the impact of 2024 policies on the mean equivalised household disposable income, broken down by income component and income decile group, as a percentage of the 2023 mean. This effect is calculated as the difference between household net income simulated under 2024 tax-benefit policies (adjusted using Eurostat's projected Harmonized Index of Consumer Prices, HICP) and net income simulated under 2023 policies.

The analysis reveals that policy changes from 2023 to 2024 led to a 0.12% increase in the mean disposable income across the population, with varied effects across the income distribution. Notably, public pensions decreased by 0.52%, with the largest declines (-0.62%) observed in the seventh and eighth deciles. Means-tested benefits saw slight increases, peaking at 0.49% in the first decile. Additionally, direct taxes rose by 0.61%, ultimately contributing to a modest increase in average household disposable income.

Table A2: Results for Luxembourg with alpha: CPI [1.02343878052778] on dataset LU_2022_b1

	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
Decile 1	0,00	-0,34	-0,14	-0,16	0,03	0,00	0,00	-0,40	-1,01
Decile 2	0,00	-0,40	0,11	-0,01	0,01	0,00	0,00	-0,15	-0,44
Decile 3	0,00	-0,34	0,10	-0,24	0,02	0,00	0,00	0,12	-0,34
Decile 4	0,00	-0,56	0,07	-0,08	0,02	0,00	0,00	0,40	-0,14
Decile 5	0,00	-0,59	0,03	-0,04	0,02	0,00	0,00	0,70	0,12
Decile 6	0,00	-0,46	0,05	-0,06	0,03	0,00	0,00	0,63	0,19
Decile 7	0,00	-0,62	0,02	-0,03	0,05	0,00	0,00	0,81	0,23
Decile 8	0,00	-0,53	0,01	-0,03	0,04	0,00	0,00	0,79	0,30
Decile 9	0,00	-0,47	0,01	-0,03	0,07	0,00	0,00	0,81	0,40
Decile 10	0,00	-0,62	0,01	-0,02	0,15	0,02	0,00	0,77	0,31
Total	0,00	-0,52	0,03	-0,05	0,06	0,01	0,00	0,59	0,11

Notes: Displayed as the percentage change in mean equivalised household disposable income by income component and decile group. Income decile groups are based on 2023 equivalised household disposable income, using the modified OECD equivalence scale. Each policy system is applied to identical input data, with 2024 monetary parameters adjusted by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure A2: Policy effects for Luxembourg with alpha: CPI [1.02343878052778] on dataset
LU_2022_b1
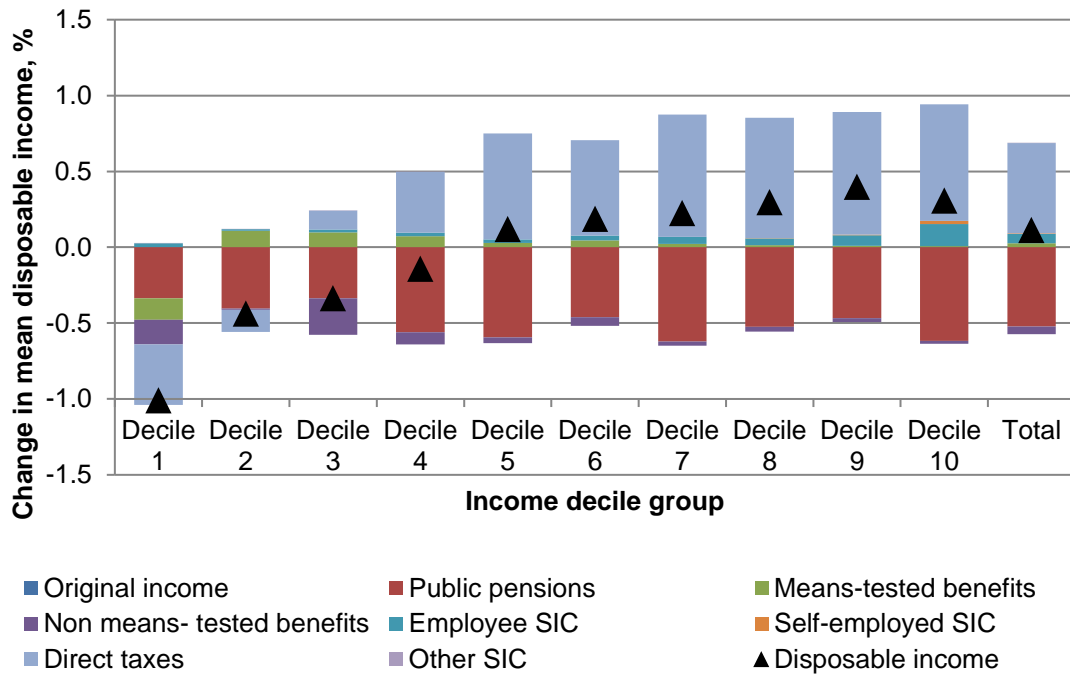
ANNEX 3. VALIDATION TABLES

See statistical annex 1 for details and tables.

ANNEX 4. (COVID19) WAGE COMPENSATION/SHORT TIME WORKING SCHEME

Table A4.1: The employment share of a move from employment status to short time work by sector of activity

| No. | Industry | Share of wage compensation scheme | | | |
| | | Employee | | Self-employed | |
		Female	Male	Female	Male
1	NACE A-E	16,8%	15,6%	0,0%	0,0%
2	NACE F	27,7%	36,8%	0,0%	24,4%
3	NACE G,H,J-N	19,5%	14,9%	30,9%	28,3%
4	NACE I	43,5%	37,7%	32,4%	0,0%
5	NACE O-U	17,9%	12,9%	24,7%	29,1%

Notes: the table is generated following the table proposed by Beine M. et al (2020) based on EU Statistics on Income and Living Conditions (EU-SILC) in 2018.

Table A4.2: The employment share of a move from employment status to short time work by duration

	Share of wage compensation scheme	
	Employee	Self-employed
Duration		
1 month	25,3%	12,6%
2 months	52,6%	37,8%
3 months	74,7%	76,8%
4 months	91,2%	86,9%
5 months	94,3%	92,7%
6 months	97,7%	100,0%
7 months	99,1%	100,0%
8 months	99,4%	100,0%
9 months	100,0%	100,0%
Hours of work per week		
0 hour	42,1%	36,0%
15 hours	74,3%	83,5%
45 hours	91,7%	100,0%

Notes: the table is generated following the proposal by Beine M. et al (2020), based on EU Statistics on Income and Living Conditions (EUSILC) in 2018.

Table A4.3: Market Incomes and Government Revenue & Expenditure (Yearly, in million)

	Baseline	*Covid19*	*Difference*
Total market incomes	18,849.85	18,541.09	-308.76
... income from (self) employment	18,098.96	17,790.20	-308.76
... other sources	750.89	750.89	0.00
Government revenue through taxes and social insurance contributions	9,070.09	9,094.80	24.71
... direct taxes	4,796.84	4,841.98	45.14
... employee social insurance contributions	2,149.34	2,194.68	45.34
... self-employed social insurance contributions	171.41	161.30	-10.11
... other social insurance contributions	2.48	2.49	0.01
... employer social insurance contributions (not part of disposable income)	1,950.02	1,894.35	-55.66
Credited social insurance contributions (not part of disposable income)	218.63	314.52	95.89
Government expenditure on social transfers	7,473.75	7,931.46	457.70
by target group	0	0	0
... unemployment benefits	295.53	757.27	461.74
... family and education benefits	788.28	787.94	-0.34
... social assistance and housing benefits	426.78	423.08	-3.70
... pensions, health and disability benefits	5,963.16	5,963.16	0.00
by benefit design	0	0	0
... means-tested non-pension benefits	520.59	516.55	-4.04
... non-means-tested non-pension benefits	991.14	1,452.88	461.74
... pensions	5,962.02	5,962.02	0.00

Note: simulations based on EU Statistics on Income and Living Conditions (EU-SILC) data from 2018, with 2020 policy-system of EUROMOD (Luxembourg model).

STATISTICAL ANNEX 1. VALIDATION TABLES

Table A3.1. Original income in EUROMOD - Number of recipients (thousands)

	Simulated	EUROMOD				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Earnings (ils_earns)													
Employee gross income (Revenu salarié brut) (yem)	N	315	315	315	315	252	259	NaN	NaN	1.25	1.21	NaN	NaN
Gross income from self-employment (Revenu brut en provenance d'une activité indépendante) (yse)	N	12	12	12	12	23	23	NaN	NaN	0.54	0.53	NaN	NaN
covid-19 compensation paid by the firm (yemmc_s)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other original income (ils_origy - ils_earns)													
Interest, dividends, profit from capital investments in unincorporated business (Revenu mobilier : Intérêts, dividendes, revenu du capital -assurance-vie & 3ème pilier si age < 65-) (yiy)	N	65	65	65	65	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other income received by children under 16 (Autres revenus reçus par les enfants âgés de 15 ans ou moins) (yot)	N	2	2	2	2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension from private pension plans (Pension en provenance de plans de pension privés / 3ème pilier SI age>=65) - NB: NOT in "pensions/ils_pen" here below because these are PUBLIC pensions (ypp)	N	3	3	3	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Expenditure - Maintenance Payments (Dépenses - Pensions alimentaires) (xmp)	N	32	32	32	32	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Gains from property (Revenu de la propriété / loyers) (ypr)	N	53	53	53	53	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Simulated	EUROMOD				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Regular inter-household cash transfers received (Transfert monétaire privéentre ménages reçu) (ypt)	N	15	15	15	15	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

Continued...

	Source	Comments
Earnings (ils_earns)		
Employee gross income (Revenu salarié brut) (yem)	IGSS	-
Gross income from self-employment (Revenu brut en provenance d'une activité indépendante) (yse)	IGSS	-
covid-19 compensation paid by the firm (yemmc_s)	-	No data available
Other original income (ils_origy - ils_earns)		
Interest, dividends, profit from capital investments in unincorporated business (Revenu mobilier : Intérêts, dividendes, revenu du capital -assurance-vie & 3ème pilier si age < 65-) (yiy)	-	No data available
Other income received by children under 16 (Autres revenus reçus par les enfants âgés de 15 ans ou moins) (yot)	-	No data available
Pension from private pension plans (Pension en provenance de plans de pension privés / 3ème pilier SI age>=65) - NB: NOT in "pensions/ils_pen" here below because these are PUBLIC pensions (ypp)	-	No data available
Expenditure - Maintenance Payments (Dépenses - Pensions alimentaires) (xmp)	-	No data available
Gains from property (Revenu de la propriété / loyers) (ypr)	-	No data available

Continued...

	Source	Comments
Regular inter-household cash transfers received (Transfert monétaire privéentre ménages reçu) (ypt)	-	No data available

Table A3.2. Original income in EUROMOD - Annual amounts (millions)

	Simulated (Y / N)	EUROMOD				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Earnings (ils_earns)													
Employee gross income (Revenu salarié brut) (yem)	N	21,100	22,324	23,963	24,814	16,527	17,858	NaN	NaN	1.28	1.25	NaN	NaN
Gross income from self-employment (Revenu brut en provenance d'une activité indépendante) (yse)	N	775	775	775	775	1,181	1,237	NaN	NaN	0.66	0.63	NaN	NaN
covid-19 compensation paid by the firm (yemmc_s)	Y	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other original income (ils_origy - ils_earns)													
Interest, dividends, profit from capital investments in unincorporated business (Revenu mobilier : Intérêts, dividendes, revenu du capital -assurance-vie & 3ème pilier si age < 65-) (yiy)	N	85	78	78	82	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other income received by children under 16 (Autres revenus reçus par les enfants âgés de 15 ans ou moins) (yot)	N	2	2	2	2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension from private pension plans (Pension en provenance de plans de pension privés / 3ème pilier SI age>=65) - NB: NOT in "pensions/ils_pen" here below because these are PUBLIC pensions (ypp)	N	11	11	11	11	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Expenditure - Maintenance Payments (Dépenses - Pensions alimentaires) (xmp)	N	357	379	394	402	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Gains from property (Revenu de la propriété / loyers) (ypr)	N	868	868	868	868	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Simulated	EUROMOD				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Regular inter-household cash transfers received (Transfert monétaire privéentre ménages reçu) (ypt)	N	81	81	81	81	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

Table A3.3. Direct taxes and SIC - Number of payers (thousands)

	Simulated (Y / N)	EUROMOD				SILC				Ratio				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Direct taxes (ils_tax)																					
Income Tax (tin_s)	Y	308	309	308	306	0	0	0	0	0.00	0.00	0.00	0.00	274	283	NaN	NaN	1.12	1.10	NaN	NaN
tax credit for employees (tintceent_s)	Y	217	208	197	193	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
tax credit for pensioners (tintcpent_s)	Y	86	82	78	78	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
tax credit for self-employed (MODIF OCT 2016) (tintcsent_s)	Y	11	11	11	11	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
tax credit for lone parents (tintclpnt_s)	Y	14	14	14	14	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for energy for employeee introduced 2022 & 2023 (tintengee_s)	Y	0	157	149	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for energy for self-employed introduced 2022 & 2023 (tintengcse_s)	Y	0	9	9	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for energy for pemsionar introduced 2022 & 2023 (tintengpen_s)	Y	0	14	14	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Tax credit for social minimum wage introduced since 2019 (tintsmw_s)	Y	23	22	28	26	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for conjuncture, CIC fpr employee (tintceecon_s)	Y	0	0	297	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for conjuncture, CIC for pensioner (tintcpencon_s)	Y	0	0	98	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for conjuncture, CIC for self employed (tintcsecon_s)	Y	0	0	7	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ New Tax credit for CO2 applied for employee in 2024 (tintco2ee_s)	Y	0	0	0	123	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ New Tax credit for CO2 applied for pensioner in 2024 (tintco2pen_s)	Y	0	0	0	54	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ New Tax credit for CO2 applied for selfemployed in 2024 (tintco2cse_s)	Y	0	0	0	9	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Property tax (tpr)	N	196	196	196	196	196	196	196	196	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Employee Social Insurance Contributions (ils_sicee)																					
Employee Total Contribution (tscee_s)	Y	424	425	425	425	0	0	0	0	0.00	0.00	0.00	0.00	373	NaN	NaN	NaN	1.14	NaN	NaN	NaN
Self-employed Social Insurance Contributions (ils_sicse)																					
Total Self Employed Contributions (tscse_s)	Y	12	12	12	12	0	0	0	0	0.00	0.00	0.00	0.00	18	NaN	NaN	NaN	0.67	NaN	NaN	NaN

	Simulated	EUROMOD				SILC				Ratio				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Employer Social Insurance Contributions (ils_sicer)																					
Total Employer Contributions (tscer_s)	Y	315	315	315	315	301	301	301	301	1.05	1.05	1.05	1.05	251	259	NaN	NaN	1.26	1.21	NaN	NaN
Credited Contributions (ils_sicct)																					
Total Credited Social Insurance Contributions (tscct_s)	Y	121	121	121	121	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Credited contributions for social assistance recipients: health Care benefit in kind (tscctsi_s)	Y	8	8	8	8	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other Contributions (ils_sicot)																					
Contribution for long-term care insurance paid on social assistance (Cotisations sociales pour l'assurance dépendance) (tsceebeot_s)	Y	5	4	5	5	0	0	0	0	0.00	0.00	0.00	0.00	391	NaN	NaN	NaN	0.01	NaN	NaN	NaN

Continued...

	Source	Comments
Direct taxes (ils_tax)		
Income Tax (tin_s)	Ministère des Finances	-
tax credit for employees (tintceent_s)	ACD, Ministère des Finances, IGSS (for ratios)	Incomplete data for 2020
tax credit for pensioners (tintcpent_s)	ACD, Ministère des Finances, IGSS (for ratios)	-
tax credit for self-employed (MODIF OCT 2016) (tintcsent_s)	ACD, Ministère des Finances, IGSS (for ratios)	Incomplete data for 2020
tax credit for lone parents (tintclpnt_s)	ACD, Ministère des Finances, IGSS (for ratios)	Incomplete data for 2020
~ Tax credit for energy for employeee introduced 2022 & 2023 (tintengee_s)	-	-
~ Tax credit for energy for self-employed introduced 2022 & 2023 (tintengcse_s)	-	-
~ Tax credit for energy for pemsionar introduced 2022 & 2023 (tintengpen_s)	-	-
Tax credit for social minimum wage introduced since 2019 (tintsmw_s)	-	-
~ Tax credit for conjuncture, CIC fpr employee (tintceecon_s)	-	-
~ Tax credit for conjuncture, CIC for pensioner (tintcpencon_s)	-	-
~ Tax credit for conjuncture, CIC for self employed (tintcsecon_s)	-	-

Continued...

	Source	Comments
~ New Tax credit for CO2 applied for employee in 2024 (tintco2ee_s)	-	-
~ New Tax credit for CO2 applied for pensioner in 2024 (tintco2pen_s)	-	-
~ New Tax credit for CO2 applied for selfemployed in 2024 (tintco2cse_s)	-	-
Property tax (tpr)	-	-
Employee Social Insurance Contributions (ils_sicee)		
Employee Total Contribution (tscee_s)	IGSS	-
Self-employed Social Insurance Contributions (ils_sicse)		
Total Self Employed Contributions (tscse_s)	IGSS	-
Employer Social Insurance Contributions (ils_sicer)		
Total Employer Contributions (tscer_s)	IGSS	-
Credited Contributions (ils_sicct)		
Total Credited Social Insurance Contributions (tscct_s)	-	No data available
Credited contributions for social assistance recipients: health Care benefit in kind (tscctsi_s)	-	No data available
Other Contributions (ils_sicot)		
Contribution for long-term care insurance paid on social assistance (Cotisations sociales pour l'assurance dépendance) (tsceebeot_s)	IGSS	-

Table A3.4. Direct taxes and SIC - Annual amounts (millions)

	Simulated	EUROMOD				SILC				Ratio				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Direct taxes (ils_tax)																					
Income Tax (tin_s)	Y	5,820	6,355	6,646	6,515	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	3,511	3,884	NaN	NaN	1.66	1.64	NaN	NaN
tax credit for employees (tintceent_s)	Y	113	107	99	81	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
tax credit for pensioners (tintcpent_s)	Y	44	42	39	33	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
tax credit for self-employed (MODIF OCT 2016) (tintcsent_s)	Y	6	6	6	5	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
tax credit for lone parents (tintclpnt_s)	Y	17	17	28	27	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for energy for employeee introduced 2022 & 2023 (tintengee_s)	Y	NaN	54	31	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for energy for self-employed introduced 2022 & 2023 (tintengcse_s)	Y	NaN	4	2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for energy for pemsionar introduced 2022 & 2023 (tintengpen_s)	Y	NaN	5	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Tax credit for social minimum wage introduced since 2019 (tintsmw_s)	Y	16	13	18	17	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for conjuncture, CIC fpr employee (tintceecon_s)	Y	NaN	NaN	131	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for conjuncture, CIC for pensioner (tintcpencon_s)	Y	NaN	NaN	39	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ Tax credit for conjuncture, CIC for self employed (tintcsecon_s)	Y	NaN	NaN	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ New Tax credit for CO2 applied for employee in 2024 (tintco2ee_s)	Y	NaN	NaN	NaN	14	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ New Tax credit for CO2 applied for pensioner in 2024 (tintco2pen_s)	Y	NaN	NaN	NaN	6	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
~ New Tax credit for CO2 applied for selfemployed in 2024 (tintco2cse_s)	Y	NaN	NaN	NaN	1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Property tax (tpr)	N	19	19	19	19	19	19	19	19	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Employee Social Insurance Contributions (ils_sicee)																					

	Simulated (Y / N)	EUROMOD				SILC				Ratio				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Employee Total Contribution (tscee_s)	Y	2,760	2,907	3,132	3,221	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	1,769	1,905	NaN	NaN	1.56	1.53	NaN	NaN
Self-employed Social Insurance Contributions (ils_sicse)																					
Total Self Employed Contributions (tscse_s)	Y	122	123	128	128	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	300	316	NaN	NaN	0.41	0.39	NaN	NaN
Employer Social Insurance Contributions (ils_sicer)																					
Total Employer Contributions (tscer_s)	Y	2,711	2,869	3,095	2,952	3,240	3,240	3,240	3,240	0.84	0.89	0.96	0.91	4,518	4,836	NaN	NaN	0.60	0.59	NaN	NaN
Credited Contributions (ils_sicct)																					
Total Credited Social Insurance Contributions (tscct_s)	Y	202	212	227	229	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Credited contributions for social assistance recipients: health Care benefit in kind (tscctsi_s)	Y	2	2	3	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other Contributions (ils_sicot)																					
Contribution for long-term care insurance paid on social assistance (Cotisations sociales pour l'assurance dépendance) (tsceebeot_s)	Y	1	1	1	1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	343	369	NaN	NaN	0.00	0.00	NaN	NaN

Table A3.5. Benefits - Number of recipients (thousands)

	Simulated (Y / N)	EUROMOD				SILC				Ratio				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Pensions (ils_pen)																					
Benefit - Early retirement pension (Pré-retraite) (byr)	N	6	6	6	6	6	6	6	6	1.00	1.00	1.00	1.00	1	1	NaN	NaN	7.26	7.02	NaN	NaN
Pension - Disability (Invalidity), specific to Luxembourg (Pension d'invalidité, variable spécifique au Luxembourg) (pdi00)	N	7	7	7	7	7	7	7	7	1.00	1.00	1.00	1.00	9	9	NaN	NaN	0.76	0.76	NaN	NaN
pension for past education of children (forfait d'education ou mammenrent) (poacc)	N	4	4	4	4	4	4	4	4	1.00	1.00	1.00	1.00	17	16	NaN	NaN	0.25	0.26	NaN	NaN
Pension - Old-age - Additional from Employer (2nd pilier) (Pension de retraite - 2nd pilier) (poacm)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
complement pension for miners and metal workers (prestations supplémentaires pour ouvriers mineurs, métallurgistes). (poamr)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension - Old Age - For private sector (Pension de vieillesse - secteur privé). (poaps)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	72	74	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Old Age - For public sector (régime général) (Pension de vieillesse - secteur public). (poapu)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	16	17	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Old-age - Complement for war captivity (Rente de captivité pour dommage de guerre) (Pension de vieillesse - complément pour prisonnier de (poawr)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension - Old-age - End of year allowance (Pension de vieillesse - allocation de fin d'année) (poaxp)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension - Survivors - Private sector (reversion pension) (Pension de survie - secteur privé) (psups)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	20	20	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Survivors - Public sector (reversion pension) (Pension de survie - secteur public) (psupu)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	5	5	NaN	NaN	0.00	0.00	NaN	NaN

	Simulated	EUROMOD				SILC				Ratio				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Pension - Old Age - Both public and private sectors (Pension de vieillesse - secteurs privé et public) - New (aggregate) since EU-SILC 2016 (poapups)	N	91	91	91	91	91	91	91	91	1.00	1.00	1.00	1.00	87	91	NaN	NaN	1.04	1.00	NaN	NaN
Pension - Survivors - Both public and private sectors (reversion pension) (Pension de survie - secteurs public et privé) - New (aggregate) since EU-SILC 2016 (psupups)	N	9	9	9	9	9	9	9	9	1.00	1.00	1.00	1.00	25	25	NaN	NaN	0.35	0.35	NaN	NaN
Means-tested benefits (ils_benmt)																					
Social assistance (Revenu minimum garanti) (bsacm_s)	Y	8	8	8	8	5	5	5	5	1.78	1.73	1.81	1.79	10	10	NaN	NaN	0.81	0.81	NaN	NaN
heating allowance (allocation de chauffage) (bsaht_s)	Y	31	45	42	40	24	24	24	24	1.28	1.84	1.75	1.63	22	NaN	NaN	NaN	1.38	NaN	NaN	NaN
Rent allowance (since 2016 on) - NB: supplement, compared to "bsaho_s", included in" bsacm_s" (see "bho_lu" policy) (bho_s)	Y	10	11	10	10	39	39	39	39	0.25	0.28	0.25	0.26	7	8	NaN	NaN	1.36	1.30	NaN	NaN
Scholarship for Tertiary education (bed_s)	Y	28	27	27	27	22	22	22	22	1.27	1.27	1.27	1.27	22	22	NaN	NaN	1.27	1.27	NaN	NaN
Non-means-tested benefits (ils_bennt)																					
Child benefit (Allocations familiales) (bfauc_s)	Y	76	76	77	77	126	126	126	126	0.60	0.60	0.61	0.61	74	75	NaN	NaN	1.03	1.01	NaN	NaN
New school year allowance (rentrée scolaire) (bched01_s)	Y	57	57	58	58	57	57	57	57	1.01	1.01	1.01	1.01	48	49	NaN	NaN	1.19	1.17	NaN	NaN
Tax bonus for children (Boni pour enfant) - Dropped since 1st Aug 2016 (bch00_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	74	75	NaN	NaN	0.00	0.00	NaN	NaN
accident permanent benefit. Since this benefit is not exiists (bacpm)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	6	6	NaN	NaN	0.00	0.00	NaN	NaN
care benefit (allocation de soins) (bca01)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
dependence allowance (allocation dépendance) (bca02)	N	4	4	4	4	4	4	4	4	1.00	1.00	1.00	1.00	6	7	NaN	NaN	0.58	0.56	NaN	NaN
primary and post-primary school subsidies. Since 2016 this benefit is not exixts (bched02)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
communal subsidies for scolarity. Since 2016 this benefit is not exists (bched03)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
education allowance (allocation d'éducation) - simulated (bched04_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	0	NaN	NaN	0.00	0.00	NaN	NaN

	Simulated (Y / N)	EUROMOD 2021	2022	2023	2024	SILC 2021	2022	2023	2024	Ratio 2021	2022	2023	2024	External 2021	2022	2023	2024	Ratio 2021	2022	2023	2024
Allowance for looked after children (indemnité pour accueil d'enfant en placement familial) (bched05)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Benefit - Heavy handicapped Person (Allocation pour personne gravement handicapée). Since 2016 this benefit is not exists (bdisv)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	1	0	NaN	NaN	0.00	0.00	NaN	NaN
Parental leave allowances (Allocation de congé parental) (bfapl)	N	8	8	8	8	8	8	8	8	1.00	1.00	1.00	1.00	6	7	NaN	NaN	1.27	1.20	NaN	NaN
prenatal birth and postnatal allowances (allocations de naissance) (bmaba)	N	19	19	19	19	19	19	19	19	1.00	1.00	1.00	1.00	8	8	NaN	NaN	2.43	2.42	NaN	NaN
Maternity Allowance, lump-sum amount at birth (Allocation de maternité, forfaitaire à la naissance) - Simulated, but dropped since 2015 (bmals_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
work related maternity payments (indemnités de maternité) (bmawk)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	5	5	NaN	NaN	0.00	0.00	NaN	NaN
PARBEN: Maternity allowance (bmact_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
PARBEN: Parental leave allowance (bplct_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
PARBEN: Paternity leave allowance (bpact_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other benefits from the solidarity national fund (FNS) (Autres bénéfices en provance du Fond National de Solidarité) (bsaot)	N	1	1	1	1	1	1	1	1	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Unemployment benefit (indemnité de chômage) (bunss_s)	Y	5	5	5	5	6	6	6	6	0.87	0.87	0.87	0.87	19	15	NaN	NaN	0.28	0.36	NaN	NaN
Gross sickness benefit (Indemnité brute de maladie) (bhl)	N	4	4	4	4	4	4	4	4	1.00	1.00	1.00	1.00	16	19	NaN	NaN	0.26	0.22	NaN	NaN
Benefit, if fired (Indemnité de préavis) (ysv)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
covid-19 compensation paid by the state (bwkmcee_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

Continued...

Source	Comments
Pensions (ils_pen)	
Benefit - Early retirement pension (Pré-retraite) (byr) — Ministère du Travail	-

Continued...

	Source	Comments
Pension - Disability (Invalidity), specific to Luxembourg (Pension d'invalidité, variable spécifique au Luxembourg) (pdi00)	IGSS	-
pension for past education of children (forfait d'education ou mammenrent) (poacc)	IGSS	-
Pension - Old-age - Additional from Employer (2nd pilier) (Pension de retraite - 2nd pilier) (poacm)	-	No data available
complement pension for miners and metal workers (prestations supplémentaires pour ouvriers mineurs, métallurgistes). (poamr)	-	No data available
Pension - Old Age - For private sector (Pension de vieillesse - secteur privé). (poaps)	IGSS	-
Pension - Old Age - For public sector (régime général) (Pension de vieillesse - secteur public). (poapu)	IGSS	-
Pension - Old-age - Complement for war captivity (Rente de captivité pour dommage de guerre) (Pension de vieillesse - complément pour prisonnier de (poawr)	-	No data available
Pension - Old-age - End of year allowance (Pension de vieillesse - allocation de fin d'année) (poaxp)	-	No data available
Pension - Survivors - Private sector (reversion pension) (Pension de survie - secteur privé) (psups)	IGSS	-
Pension - Survivors - Public sector (reversion pension) (Pension de survie - secteur public) (psupu)	IGSS	-
Pension - Old Age - Both public and private sectors (Pension de vieillesse - secteurs privé et public) - New (aggregate) since EU-SILC 2016 (poapups)	IGSS	-
Pension - Survivors - Both public and private sectors (reversion pension) (Pension de survie - secteurs public et privé) - New (aggregate) since EU-SILC 2016 (psupups)	IGSS	-

Continued...

	Source	Comments
Means-tested benefits (ils_benmt)		
Social assistance (Revenu minimum garanti) (bsacm_s)	IGSS	No data available
heating allowance (allocation de chauffage) (bsaht_s)	IGSS	-
Rent allowance (since 2016 on) - NB: supplement, compared to "bsaho_s", included in" bsacm_s" (see "bho_lu" policy) (bho_s)	Ministère du Logement	-
Scholarship for Tertiary education (bed_s)	Ministère de l'Enseignement supérieur et de la Recherche	-
Non-means-tested benefits (ils_bennt)		
Child benefit (Allocations familiales) (bfauc_s)	IGSS	-
New school year allowance (rentrée scolaire) (bched01_s)	IGSS	-
Tax bonus for children (Boni pour enfant) - Dropped since 1st Aug 2016 (bch00_s)	-	-
accident permanent benefit. Since this benefit is not exiists (bacpm)	IGSS	-
care benefit (allocation de soins) (bca01)	-	Since 2016 this benefit no longer exists
dependence allowance (allocation dépendance) (bca02)	IGSS	-
primary and post-primary school subsidies. Since 2016 this benefit is not exixts (bched02)	-	Since 2016 this benefit no longer exists
communal subsidies for scolarity. Since 2016 this benefit is not exists (bched03)	-	Since 2016 this benefit no longer exists
education allowance (allocation d'éducation) - simulated (bched04_s)	IGSS	Abolished in 2015, last allowances given in 2019
Allowance for looked after children (indemnité pour accueil d'enfant en placement familial) (bched05)	-	No data available
Benefit - Heavy handicapped Person (Allocation pour personne gravement handicapée). Since 2016 this benefit is not exists (bdisv)	IGSS	-
Parental leave allowances (Allocation de congé parental) (bfapl)	IGSS	-

Continued...

	Source	Comments
prenatal birth and postnatal allowances (allocations de naissance) (bmaba)	IGSS	-
Maternity Allowance, lump-sum amount at birth (Allocation de maternité, forfaitaire à la naissance) - Simulated, but dropped since 2015 (bmals_s)	-	-
work related maternity payments (indemnités de maternité) (bmawk)	IGSS	-
PARBEN: Maternity allowance (bmact_s)	-	Abolished since 2015
PARBEN: Parental leave allowance (bplct_s)	-	Same as bfapl??
PARBEN: Paternity leave allowance (bpact_s)	-	No data available
Other benefits from the solidarity national fund (FNS) (Autres bénéfices en provance du Fond National de Solidarité) (bsaot)	-	No data available
Unemployment benefit (indemnité de chômage) (bunss_s)	ADEM	-
Gross sickness benefit (Indemnité brute de maladie) (bhl)	IGSS	-
Benefit, if fired (Indemnité de préavis) (ysv)	-	No data available
covid-19 compensation paid by the state (bwkmcee_s)	-	No data available

Table A3.6. Benefits - Annual amounts (million)

	Simulated (Y / N)	EUROMOD				SILC				Ratio				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Pensions (ils_pen)																					
Benefit - Early retirement pension (Pré-retraite) (byr)	N	273	289	310	321	273	273	273	273	1.00	1.06	1.14	1.18	50	64	NaN	NaN	5.50	4.49	NaN	NaN
Pension - Disability (Invalidity), specific to Luxembourg (Pension d'invalidité, variable spécifique au Luxembourg) (pdi00)	N	218	230	246	246	218	218	218	218	1.00	1.05	1.13	1.13	253	259	NaN	NaN	0.86	0.89	NaN	NaN
pension for past education of children (forfait d'education ou mammenrent) (poacc)	N	12	12	13	13	12	12	12	12	1.00	1.05	1.13	1.13	34	NaN	NaN	NaN	0.34	NaN	NaN	NaN
Pension - Old-age - Additional from Employer (2nd pilier) (Pension de retraite - 2nd pilier) (poacm)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
complement pension for miners and metal workers (prestations supplémentaires pour ouvriers mineurs, métallurgistes). (poamr)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension - Old Age - For private sector (Pension de vieillesse - secteur privé). (poaps)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	2,814	3,056	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Old Age - For public sector (régime général) (Pension de vieillesse - secteur public). (poapu)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	1,230	1,362	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Old-age - Complement for war captivity (Rente de captivité pour dommage de guerre) (Pension de vieillesse - complément pour prisonnier de (poawr)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension - Old-age - End of year allowance (Pension de vieillesse - allocation de fin d'année) (poaxp)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Pension - Survivors - Private sector (reversion pension) (Pension de survie - secteur privé) (psups)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	591	615	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Survivors - Public sector (reversion pension) (Pension de survie - secteur public) (psupu)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	207	215	NaN	NaN	0.00	0.00	NaN	NaN
Pension - Old Age - Both public and private sectors (Pension de vieillesse - secteurs privé et public) - New (aggregate) since EU-SILC 2016 (poapups)	N	5,045	5,314	5,691	5,691	5,045	5,045	5,045	5,045	1.00	1.05	1.13	1.13	4	4,286	NaN	NaN	#####	1.24	NaN	NaN

	Simulated	EUROMOD				SILC				Ratio				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Pension - Survivors - Both public and private sectors (reversion pension) (Pension de survie - secteurs public et privé) - New (aggregate) since EU-SILC 2016 (psupups)	N	323	340	364	364	323	323	323	323	1.00	1.05	1.13	1.13	798	823	NaN	NaN	0.40	0.41	NaN	NaN
Means-tested benefits (ils_benmt)																					
Social assistance (Revenu minimum garanti) (bsacm_s)	Y	87	83	100	96	72	72	72	72	1.22	1.16	1.39	1.35	165	169	169	169	0.53	0.49	0.59	0.57
heating allowance (allocation de chauffage) (bsaht_s)	Y	55	63	65	71	34	34	34	34	1.62	1.84	1.90	2.07	44	NaN	NaN	NaN	1.26	NaN	NaN	NaN
Rent allowance (since 2016 on) - NB: supplement, compared to "bsaho_s", included in" bsacm_s" (see "bho_lu" policy) (bho_s)	Y	18	32	27	27	41	41	41	41	0.43	0.78	0.67	0.65	11	18	NaN	NaN	1.66	1.78	NaN	NaN
Scholarship for Tertiary education (bed_s)	Y	109	108	115	124	92	92	92	92	1.19	1.18	1.25	1.35	111	122	NaN	NaN	0.98	0.88	NaN	NaN
Non-means-tested benefits (ils_bennt)																					
Child benefit (Allocations familiales) (bfauc_s)	Y	492	526	536	544	435	435	435	435	1.13	1.21	1.23	1.25	487	518	NaN	NaN	1.01	1.01	NaN	NaN
New school year allowance (rentrée scolaire) (bched01_s)	Y	16	16	16	16	11	11	11	11	1.41	1.41	1.41	1.41	17	17	NaN	NaN	0.94	0.93	NaN	NaN
Tax bonus for children (Boni pour enfant) - Dropped since 1st Aug 2016 (bch00_s)	Y	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	0	NaN	NaN	NaN	NaN	NaN	NaN
accident permanent benefit. Since this benefit is not exiists (bacpm)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	41	42	NaN	NaN	0.00	0.00	NaN	NaN
care benefit (allocation de soins) (bca01)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
dependence allowance (allocation dépendance) (bca02)	N	45	46	48	49	45	45	45	45	1.00	1.03	1.08	1.11	56	58	NaN	NaN	0.80	0.79	NaN	NaN
primary and post-primary school subsidies. Since 2016 this benefit is not exixts (bched02)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
communal subsidies for scolarity. Since 2016 this benefit is not exists (bched03)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
education allowance (allocation d'éducation) - simulated (bched04_s)	Y	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	0	NaN	NaN	0.00	0.00	NaN	NaN
Allowance for looked after children (indemnité pour accueil d'enfant en placement familial) (bched05)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Benefit - Heavy handicapped Person (Allocation pour personne gravement handicapée). Since 2016 this benefit is not exists (bdisv)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	5	5	NaN	NaN	0.00	0.00	NaN	NaN

	Simulated (Y / N)	EUROMOD				SILC				Ratio				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Parental leave allowances (Allocation de congé parental) (bfapl)	N	101	104	110	110	101	101	101	101	1.00	1.04	1.10	1.10	114	129	NaN	NaN	0.88	0.81	NaN	NaN
prenatal birth and postnatal allowances (allocations de naissance) (bmaba)	N	11	11	12	12	11	11	11	11	1.00	1.04	1.10	1.10	13	13	NaN	NaN	0.80	0.82	NaN	NaN
Maternity Allowance, lump-sum amount at birth (Allocation de maternité, forfaitaire à la naissance) - Simulated, but dropped since 2015 (bmals_s)	Y	NaN	NaN	NaN	NaN	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
work related maternity payments (indemnités de maternité) (bmawk)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	133	124	NaN	NaN	0.00	0.00	NaN	NaN
PARBEN: Maternity allowance (bmact_s)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
PARBEN: Parental leave allowance (bplct_s)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
PARBEN: Paternity leave allowance (bpact_s)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other benefits from the solidarity national fund (FNS) (Autres bénéfices en provance du Fond National de Solidarité) (bsaot)	N	16	16	18	18	16	16	16	16	1.00	1.06	1.14	1.18	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Unemployment benefit (indemnité de chômage) (bunss_s)	Y	74	76	78	87	110	110	110	110	0.67	0.69	0.71	0.79	26,409	234	NaN	NaN	0.00	0.33	NaN	NaN
Gross sickness benefit (Indemnité brute de maladie) (bhl)	N	83	86	91	91	83	83	83	83	1.00	1.04	1.10	1.10	106	118	NaN	NaN	0.78	0.72	NaN	NaN
Benefit, if fired (Indemnité de préavis) (ysv)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
covid-19 compensation paid by the state (bwkmcee_s)	Y	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

Table A3.7. Distribution of equivalised disposable income

	EUROMOD				External				Ratio			
	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Decile 1	3.68	3.57	3.57	3.51	3.00	3.00	NaN	NaN	1.23	1.19	NaN	NaN
Decile 2	5.67	5.77	5.76	5.75	5.20	5.00	NaN	NaN	1.09	1.15	NaN	NaN
Decile 3	6.82	6.86	6.81	6.78	6.10	5.80	NaN	NaN	1.12	1.18	NaN	NaN
Decile 4	7.73	7.78	7.77	7.76	7.20	7.00	NaN	NaN	1.07	1.11	NaN	NaN
Decile 5	8.70	8.80	8.72	8.71	8.50	8.10	NaN	NaN	1.02	1.09	NaN	NaN
Decile 6	9.76	9.68	9.81	9.85	9.50	9.30	NaN	NaN	1.03	1.04	NaN	NaN
Decile 7	11.01	10.95	10.94	10.92	10.80	10.90	NaN	NaN	1.02	1.00	NaN	NaN
Decile 8	12.34	12.40	12.39	12.42	12.60	12.40	NaN	NaN	0.98	1.00	NaN	NaN
Decile 9	14.29	14.27	14.33	14.42	14.80	14.70	NaN	NaN	0.97	0.97	NaN	NaN
Decile 10	20.01	19.91	19.90	19.87	22.30	23.60	NaN	NaN	0.90	0.84	NaN	NaN
Median	45,293	47,239	50,719	52,329	45,310	47,636	NaN	NaN	1.00	0.99	NaN	NaN
Mean	49,848	52,075	56,523	58,211	50,125	54,673	NaN	NaN	0.99	0.95	NaN	NaN
Gini	25.22	25.04	25.07	25.21	29.10	30.60	NaN	NaN	0.87	0.82	NaN	NaN
S80/20	3.67	3.66	3.67	3.70	4.54	4.79	NaN	NaN	0.81	0.76	NaN	NaN

Table A3.8. At-risk-of-poverty rates (%) by sex and age

	EUROMOD				External				Ratio			
	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
40% median HDI by sex												
Total	3.22	2.62	2.83	2.94	5.10	4.00	NaN	NaN	0.63	0.66	NaN	NaN
Males	2.93	2.49	2.55	2.66	4.80	4.10	NaN	NaN	0.61	0.61	NaN	NaN
Females	3.53	2.76	3.13	3.23	5.50	4.00	NaN	NaN	0.64	0.69	NaN	NaN
50% median HDI by sex												
Total	6.68	6.02	6.04	6.68	8.90	10.90	NaN	NaN	0.75	0.55	NaN	NaN
Males	6.43	5.61	5.63	6.47	8.20	9.80	NaN	NaN	0.78	0.57	NaN	NaN
Females	6.94	6.45	6.46	6.89	9.50	12.10	NaN	NaN	0.73	0.53	NaN	NaN
60% median HDI by sex												
Total	13.24	12.82	13.49	13.13	17.30	18.80	NaN	NaN	0.77	0.68	NaN	NaN
Males	12.49	12.06	12.83	12.51	15.90	17.30	NaN	NaN	0.79	0.70	NaN	NaN
Females	14.02	13.61	14.19	13.79	18.80	20.50	NaN	NaN	0.75	0.66	NaN	NaN
70% median HDI by sex												
Total	21.61	21.14	20.78	21.46	27.40	26.60	NaN	NaN	0.79	0.79	NaN	NaN
Males	20.26	19.60	19.86	20.06	26.20	24.70	NaN	NaN	0.77	0.79	NaN	NaN
Females	23.03	22.75	21.75	22.92	28.70	28.60	NaN	NaN	0.80	0.80	NaN	NaN
60% median HDI by age group												
0-15 years	17.06	16.56	16.86	16.92	22.30	23.50	NaN	NaN	0.77	0.70	NaN	NaN
16-24 years	18.39	18.68	20.40	18.32	24.80	35.10	NaN	NaN	0.74	0.53	NaN	NaN
25-49 years	12.45	11.53	12.87	12.34	17.00	17.10	NaN	NaN	0.73	0.67	NaN	NaN
50-64 years	11.63	11.75	11.68	11.76	13.90	17.20	NaN	NaN	0.84	0.68	NaN	NaN
65+ years	8.89	8.66	8.24	8.46	11.00	10.50	NaN	NaN	0.81	0.82	NaN	NaN

Table A3.9. Consumption taxes (non-calibrated) - Annual amounts (millions)

	Simulated	EUROMOD				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Consumption-tax-related statistics non-calibrated (ils_extstat_ittncal)													
Aggregate expenditures non-calibrated (ils_extstat_ittncal_il_itt_expnc)													
01 Food and non-alcoholic beverages (il_x01)	Y	1,881	1,968	2,122	2,182	2,196	2,334	2,512	2,512	0.86	0.84	0.84	0.87
02 Alcoholic beverages, tobacco, etc. (il_x02)	Y	296	310	335	344	2,026	2,324	2,807	2,807	0.15	0.13	0.12	0.12
03 Clothing and footwear (il_x03)	Y	1,114	1,165	1,256	1,294	1,061	1,163	1,155	1,155	1.05	1.00	1.09	1.12
04 Housing, water and fuel (exc. imputed rent) (il_x04)	Y	2,869	3,006	3,257	3,349	2,285	2,466	2,527	2,527	1.26	1.22	1.29	1.33
05 Furnishings, household equipment, etc. (il_x05)	Y	1,384	1,445	1,560	1,606	1,569	1,639	1,629	1,629	0.88	0.88	0.96	0.99
06 Health (il_x06)	Y	572	598	647	665	954	980	1,085	1,085	0.60	0.61	0.60	0.61
07 Transport (il_x07)	Y	3,090	3,232	3,484	3,590	3,275	3,669	3,698	3,698	0.94	0.88	0.94	0.97
08 Communications (il_x08)	Y	497	520	562	578	317	326	330	330	1.57	1.59	1.70	1.75
09 Recreation and culture (il_x09)	Y	1,316	1,375	1,484	1,529	1,472	1,665	1,748	1,748	0.89	0.83	0.85	0.87
10 Education (il_x10)	Y	117	123	132	136	223	232	264	264	0.53	0.53	0.50	0.52
11 Hotels and restaurants (il_x11)	Y	1,783	1,864	2,014	2,074	1,217	1,635	1,889	1,889	1.47	1.14	1.07	1.10
12 Miscellaneous good and services (il_x12)	Y	1,891	1,977	2,135	2,199	3,184	3,291	3,602	3,602	0.59	0.60	0.59	0.61
Revenue from indirect taxes (non calibrated) (ils_extstat_ittncal_il_itt_revnc)													
VAT Total Revenue (il_tva)	Y	1,354	1,415	1,453	1,562	4,497	5,168	5,159	NaN	0.30	0.27	0.28	NaN
Excises Total Revenue (il_tx)	Y	283	218	288	311	1,791	NaN	NaN	NaN	0.16	NaN	NaN	NaN
Total excises (non calibrated) (ils_extstat_ittncal_il_itt_excnc)													
Revenues Excises 0211 - Spirits (il_tx0211)	Y	7	7	7	7	64	NaN	NaN	NaN	0.11	NaN	NaN	NaN
Revenues Excises 02121 - Still Wine (il_tx02121)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Simulated	EUROMOD				External				Ratio			
	(Y / N)	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Revenues Excises 02122 - Sparkling Wine (il_tx02122)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 0213 - Beer (il_tx0213)	Y	1	1	1	1	4	NaN	NaN	NaN	0.35	NaN	NaN	NaN
Revenues Excises 022 - Tobacco (il_tx022)	Y	56	59	64	67	750	NaN	NaN	NaN	0.07	NaN	NaN	NaN
Revenues Excises 045 - Energy (electricity, natural gas, coal-coke) (il_tx045)	Y	53	34	51	65	22	NaN	NaN	NaN	2.38	NaN	NaN	NaN
Revenues Excises 0451 - Electricity (il_tx0451)	Y	2	2	2	2	3	NaN	NaN	NaN	0.68	NaN	NaN	NaN
Revenues Excises 04521 - Natural Gas (il_tx04521)	Y	32	20	25	31	19	NaN	NaN	NaN	1.68	NaN	NaN	NaN
Revenues Excises All Energy (il_tx045_072)	Y	219	150	215	236	955	NaN	NaN	NaN	0.23	NaN	NaN	NaN

Table A3.10. Consumption taxes (calibrated) - Annual amounts (millions)

	Simulated (Y / N)	EUROMOD				External				Ratio			
		2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Consumption-tax-related statistics calibrated (ils_extstat_ittcal)													
Revenue from indirect taxes (calibrated) (il_itt_revc)													
VAT Total Revenue (il_tva_na)	Y	1,675	1,845	1,859	2,046	4,497	5,168	5,159	NaN	0.37	0.36	0.36	NaN
Excises Total Revenue (il_tx_na)	Y	660	669	828	881	1,791	NaN	NaN	NaN	0.37	NaN	NaN	NaN
Total excises (calibrated) (il_itt_excc)													
Revenues Excises 0211 - Spirits (il_tx0211_na)	Y	46	53	59	60	64	NaN	NaN	NaN	0.73	NaN	NaN	NaN
Revenues Excises 02121 - Still Wine (il_tx02121_na)	Y	3	3	4	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 02122 - Sparkling Wine (il_tx02122_na)	Y	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 0213 - Beer (il_tx0213_na)	Y	9	10	12	12	4	NaN	NaN	NaN	2.41	NaN	NaN	NaN
Revenues Excises 022 - Tobacco (il_tx022_na)	Y	384	443	540	572	750	NaN	NaN	NaN	0.51	NaN	NaN	NaN
Revenues Excises 045 - Energy (electricity, natural gas, coal-coke) (il_tx045_na)	Y	42	28	39	52	22	NaN	NaN	NaN	1.90	NaN	NaN	NaN
Revenues Excises 0451 - Electricity (il_tx0451_na)	Y	2	2	2	2	3	NaN	NaN	NaN	0.54	NaN	NaN	NaN
Revenues Excises 04521 - Natural Gas (il_tx04521_na)	Y	26	17	19	24	19	NaN	NaN	NaN	1.34	NaN	NaN	NaN
Revenues Excises All Energy (il_tx045_072_na)	Y	218	160	213	237	955	NaN	NaN	NaN	0.23	NaN	NaN	NaN

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