EUROMOD Country Report – Estonia

2021-2024

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2025

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JRC141175

How to cite this report: European Commission: Joint Research Centre, Toim, K., Laurimäe, M. and Vork, A., *EUROMOD Country Report - Estonia*, Ricci, M. editor(s), Publications Office, Luxembourg, 2025, JRC141175.

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INTRODUCTION

This country report gives an overview of the Estonian country component of EUROMOD. The report presents the basic information on the Estonian tax-benefit system valid in 2020-23 (as of 30th June in corresponding year), it explains which taxes and benefits are simulated in EUROMOD, together with the key aspects of implementation, and how well the model represents actual income distribution and monetary aggregates.

The current Estonian country model uses EUROMOD SILC[1] database (EMSD), which includes all UDB variables, but also is complemented with extra variables from the Estonian Social Survey (Eesti Sotsiaaluuring, EE-SILC) and EUROMOD variables imputed inside Eurostat. Estonian Social Survey is a more detailed national version of the SILC survey from where the EU-SILC variables are derived.

The report adds to and builds on earlier reports: Lüpsik et al. (2008); Võrk et al. (2010); Võrk and Paulus (2011, 2012, 2013, 2014); Võrk et al. (2015, 2016), Masso et al. (2017, 2018, 2019), Laurimäe et al. (2020, 2021, 2022) and Toim et al. (2023). Reports until 2021 were based on a single combined dataset (EU-SILC with selected variables from EE-SILC). Since 2022, reports use a new combined EUROMOD SILC database (EMSD) which combines the dataset of EU-SILC and EE-SILC. The 2024 report updates information on policy rules (adds 2024 policies) as well as validation results.

1. BASIC INFORMATION

1.1 Basic information about the tax-benefit system

- The tax system is largely a unified, national system consisting of income tax, value added tax, excise taxes, social tax and social insurance contributions. There are a few taxes set by local governments, such as land tax, motor vehicle tax, but the share of these taxes in overall tax revenues is negligible.

- The benefit system is also a unified, national system. Municipalities provide a few local benefits, such as additional family and child benefits, and additional social assistance benefits, but the share in overall social expenditures is small. Social benefits and pensions are usually assessed and delivered on a monthly basis. Amounts are referred to in monthly terms.

- The fiscal year is 1st January – 31st December. Taxes and benefits are not indexed, with the exception of state pensions, which are indexed to the weighted average of inflation and social tax revenues, though further ad hoc pension increases are also common. Indexation takes place on 1st April every year. The tax system and other benefits are changed only in ad hoc manner, usually in the beginning of the year, though there have been also some occasional exceptions (e.g., changes in family benefits taking effect in July and September). Changes in indirect taxes have taken place more frequently, often within a year. Some thresholds of benefits (i.e., minimum or maximum levels of unemployment benefits or parental benefits) are linked to the minimum wage or average contribution base in the previous year. In addition, some parameters of benefit formulae are linked to past relative or absolute poverty lines.

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[1] SILC - European Union Survey of Income and Living Conditions (EU-SILC)

- In 2024, the statutory pension age was 64 years and 9 months both for men and women. The pension age will increase to 65 by 2026 for both sexes by 3-month steps. Early or postponed retirement is possible, affecting the amount of pensions.

- Children are obliged to attend school from age 7 and until they acquire basic education or reach the age of 17.

    o Dependent children for family benefits, including needs-based family benefits (existed in 2013-2017), were until 2022 defined as aged under 16, or under 19 and enrolled in basic school, upper secondary school or vocational school in daytime study or another form of study for medical reasons. However, starting in 2023, the definition of dependent children has changed. Dependent children are now defined as those aged under 19. When a child turns 19 and continues their education in basic school, high school, vocational education or training, or is included in the list of stationary further education without having completed secondary education, they will still be considered dependent until the end of the current academic year or until they complete the further education course.

    o Dependent children for the subsistence benefit are defined as aged under 18.

    o For taxation purposes, dependent children are aged under 18. One of the parents may deduct an additional tax allowance from his or her income in the period of taxation depending on the number of children.

- For family benefit purposes single parents are the parents of resident dependent children whose birth registration certificate does not have an entry concerning the father, or since 2024, the other parent. For social assistance purposes, single adult household is a household with a single adult and dependents aged under 18.

- The income tax system is an individual system. Before 2017, a married couple also had an option to file a joint tax report (which was beneficial if one had unused tax allowances which they could have shared then). Since 2017, joint declarations were abolished though a few tax allowances could still be shared between spouses. In 2024, tax allowance for spouses was abolished, along with tax allowance for raising children and tax deductions for housing loan interest payments. Income tax liability is based on annual income and allowances are referred to in annual terms, although 1/12 of the annual basic, pension and sickness allowance can be applied on a monthly basis to calculate withholding income tax. To make use of other allowances and deductions these have to be claimed in the following year (by 30 April) when filing the tax report. The latter determines the final tax liability, taking into account tax already withheld. Overall, there are relatively few allowances and deductions in the system. Different income sources are taxed uniformly, except private pensions which have a lower income tax rate.

- The means-tested benefit system assesses entitlement according to household income. Household consists of persons living together and sharing their income and expenditures. Income is assessed either on a monthly basis (in the case of subsistence benefits) or based on the average income in the previous three months (in the case of needs-based family benefits in 2013-2017). Nearly all income sources are taken into account. Assets are taken into account in an ad hoc manner.

- The social tax is a payroll tax and is paid by employers, although all tax payments are linked to individuals when calculating pensions, sickness benefits or maternity benefits. Employers also pay part of the unemployment insurance contributions. There are a few additional social contributions paid by employees: employees' part of the unemployment insurance contributions and contributions to the pension scheme for those who continue payments to II pillar.

- Consumption taxes consist of (1) VAT with two rates (standard and reduced) including some exceptions, (2) harmonised excises on alcohol, tobacco, electricity, fuel and non-alcoholic beverage packages, (3) other minor taxes (tax on gambling, tax on heavy vehicles, customs duties, local taxes).

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

1.2.1   Pensions

The Estonian pension system is based on three pillars: state pension insurance (the 1st pillar) – a pay-as-you-go scheme; a mandatory funded pension scheme (the 2nd pillar); and a supplementary (voluntary) funded pension scheme (the 3rd pillar). The first pillar provides protection against the risks of old age, disability and survivorship, and comprises two separate tiers: a) residence-based national pensions and b) employment-based old-age, work incapacity and survivors' pensions. The mandatory funded pension scheme (voluntary since 2021, funded scheme will be used in this report) covers the risks of old-age and survivorship, the voluntary funded pension scheme covers the risks of old-age, disability and survivorship. All pensions are taxable with income tax. Before 2018 an additional tax-free pension allowance applied.

State old-age pension (*riiklik vanaduspension*) is calculated according to a formula, which consists of four additive elements: a flat-rate element; a length-of-service element (applies to pensionable service until 31st December 1998); an insurance element applying to periods after 1st January 1999 and a joint part (effective since 2021). Thus, regarding contributions made since 2021, the joint part replaces previous 100% insurance component with the following: 50% insurance component and 50% years of service part (solidarity component). The pension components are indexed annually by an arithmetic weighted average of annual increases of consumer prices and social tax revenues, ad hoc increases are also allowed.

Additional old-age pensions from the funded pension scheme (*kogumispension*) depend on total contributions over the working career and yields of pension funds. Since January 2021, the membership of the statutory funded pension scheme is voluntary (it was mandatory before that) but joining the second pillar scheme remains automatic for young people. However, it is possible to i) continue payments as before; ii) opt out of the pension fund and withdraw all the money; iii) suspend new payments and leave the collected money in the fund; iv) to transfer payments and shift the contribution from the pension fund to an individual pension investment account. Until 2020, only when people reached the pension age, they could withdraw their accumulated assets. Since 2024, it is also possible to increase the contribution rate from 2% to 4% or 6%.

National pension (*rahvapension*) is a flat-rate minimum guaranteed pension for those persons who do not fulfil the minimum length of service requirement to be eligible for old-age pensions or pension for incapacity for work, or in the case of survivor's pension a provider did not fulfil the length of service requirement.

It is possible to retire early and between 2021 – 2025 there is a choice between two systems: early retirement pension (older system that is gradually abolishing) and flexible retirement (new system in force since 2021). **Early retirement pension (*ennetähtaegne vanaduspension*)** is available up to three years before the legal pension age. The amount of pension is calculated on the basis of old-age pension formula, but permanently reduced by 0.4% for every month of earlier retirement. Pensions are suspended when the person returns to work before the pension age. Working while receiving retirement pensions is allowed after the person has reached the statutory pension age. Since 2021, there is **actuarially neutral flexible pensionable age**, which means it

is possible to retire maximum 5 years before pensionable age (40 pensionable service years – 5 years before pensionable age; 35 pensionable service years – 4 years before pensionable age; 30 pensionable service years – 3 years before pensionable age, etc.). According to the new system, cumulating work income and pension is allowed, which means that pension could be taken out partly (for instance when reaching pensionable age, it is possible to take out half of the pension and continue working part time, then half of the pension is "put on hold"). However, retiring earlier still decreases the monthly pension amount.

Deferred old-age pension (*edasilükatud vanaduspension***)**: a type of state old-age pension, that applies to those who reached retirement age before 2021. According to that, pension is increased by 0.9 per cent for every month that exceeds the statutory pension age. Since 2021, there is a new system "flexible retirement" in force according to which it is possible to postpone retirement or take out half of the pension and continue working part time. Postponing the pension or part of it will increase the eventual monthly pension amount depending on the number of postponed years, on the life table of Statistics Estonia and on the interest rate of European Central Bank bonds.

Old age pension under favourable conditions (*soodustingimustel vanaduspension***):** Under the *State Pension Insurance Act (Riikliku pensionikindlustuse seadus)*, one of the parents who has raised three or more children or a disabled child has the right to retire up to five years earlier before the legal pension age and there is no reduction in pension amount. *Old-age Pensions Under Favourable Conditions Act (Soodustingimustel vanaduspensionide seadus)* states that persons who have worked under hazardous or hard working conditions (defined by categories of professions) for a certain period of time have the right to retire up to ten years before the legal pension age. The value of a year of pensionable service is also increased, the size depending on the profession. The payment of old age pensions under favourable conditions for hazardous and hard-working conditions will gradually end, the termination date depending on profession. Additional pensionable years of service can be gained until 2030 or 2036, depending on the length of service required. Oil shale miners have a longer transitional period, and additional pensionable years of service can be collected until December 31, 2049.

Superannuated pension (*väljateenitud aastate pension***):** For specific professions (e.g., police officers, pilots, seamen, artists etc.) pension is available before normal retirement age, given that they have the required length of service. The amount of the pension depends on the profession. Upon attaining the general pensionable age, the person may switch to the old-age pension. In addition,, there are a few special occupational pensions (e.g., judges, chancellor of justice, army, etc.), regulated by special acts. However, defence forces, prosecutors, police and border guard officials who began their career in 2020 or onward will no longer be entitled to a special pension.

Pension for incapacity to work (*töövõimetuspension***)** or disability pension: granted to people aged 16 and above who are declared permanently incapacitated for work with the 40 to 100 per cent loss of the capacity for work, and who have the required length of service, which depends on the age of the person. The pension depends on the same three components as the state old-age pension, but also on the extent of person's work incapacity. There is no restriction on work and full accumulation with earnings is possible. Upon attaining the pension age, the person is transferred to old-age pension.

Due to the work ability reform that started in January 2016 there is a **work ability allowance (***töövõimetoetus***)** that gradually replaces the pension for incapacity to work. The sum of the new allowance depends whether the person has partial or no work ability and on the amount of concurrent labour market earnings. Assessment of ability to work for new entrants started from July 2016. Those who are currently receiving pension for incapacity for work are gradually transferred to the new benefit scheme through new assessments from January 2017 to the end of 2021.

Survivor's pension (*toitjakaotuspension*): Upon the death of a provider, family members who were maintained by him or her have the right to receive a survivor's pension. The pension depends on rights to the old-age pension earned by the provider and the number of family members. There are lower limits to pensions.

1.2.2 Benefits for families with children

There are various forms of support for families with children.

1) Universal family benefits that mainly depend on the age and number of children.

2) Benefits that compensate periods when a parent is out of the labour market and which depend on the parent's previous earnings – maternity benefit (*ema vanemahüvitis*), shared parental benefit *(jagatav vanemahüvitis)*, care benefit for nursing a child under 12 years of age who is ill *(hooldushüvitis)*, etc.

3) Tax allowances and deductions depending on the number of children or expenditures on children were in place until 2024. These are described in detail below where we discuss income taxation.

4) Benefits and services provided by local municipalities – additional birth grants, additional social assistance benefits, child's school allowance (at the beginning of the school year), etc.

5) Special benefits for disabled children.

6) Free or subsidised services for children (e.g., subsidised school meals; free health care, including dental care; subsidised childcare in kindergarten, etc) – these in-kind services are not discussed in detail as they are not simulated in EUROMOD.

State family benefits

The types and extent of state family benefits and the conditions under which they are granted are regulated by *Family Benefits Act (Perehüvitiste seadus)*. If a person is entitled to several types of family benefits, these benefits are usually determined and disbursed simultaneously. Dependent children for family benefits were until the end of 2022 defined as aged under 16, or under 19 and enrolled in basic school, upper secondary school, or vocational school in daytime study or another form of study for medical reasons. As of 2023, dependent children are defined as children under 19. A child who has turned 19 years old and is studying in basic school, high school, vocational education or training, or included in the list of stationary further education courses managed by the Ministry of Social Affairs, and has not completed secondary education, is considered dependent until the end of the current academic year or until the completion of the further education course or removal from the list of the student's school or further education course. All family allowances paid under the Family Benefits Act are non-taxable with income tax and non-means-tested. The Family Benefits Act also covers (taxable) parental pay (see below).

Child allowance (*lapsetoetus*): a non-means-tested benefit per dependent child per month. The amount depends on the birth rank of the child in the family.

Single parent's child allowance (*üksikvanema lapse toetus*): a non-means-tested benefit, paid as a supplement to the child allowance. Single parents are the parents of resident dependent children whose birth registration certificate does not have an entry concerning the father or the other parent is officially declared missing/wanted.

Childcare allowance (*lapsehooldustasu*): a non-means-tested monthly benefit paid to one of the parents in respect of children under 3 years of age and in respect of children from 3 to 8 years of

age if there are 3 or more children or children under 3 years of age in the family. Since 1ˢᵗ January 2009 if a parent receives parental benefits, then the parent cannot receive the childcare allowance also for any other children. Parents are allowed to work when receiving childcare allowance without reduction in the benefit. The benefit is gradually abolishing from September 2019.

Allowance for families with many children *(lasterikka pere toetus):* a non-means-tested benefit for families with 3-7 children. Until the end of 2022, the amount of the benefit was €300 per month for families with 3-6 children and €400 per month for families with 7+ children. In 2023, this was increased to €650 and €850 per month respectively. Additionally, a smooth exit scheme for the benefit was created starting from 2023, according to which families will continue to receive support payments if they have one or two children who meet the specified conditions. If the family has two eligible children, they will receive two-thirds of the support, and if there is one eligible child, they will receive one-third of the support. In 2024, the monthly benefit amounts were reduced to €450 for families with 3-6 children and to €650 for families with 7+ children. Additionally, the smooth exit scheme was discontinued at the start of 2024.

Conscript's child allowance (*ajateenija lapse toetus*) is a monthly allowance applicable to the child whose parent serves in the Estonian Defence Forces in case the child receives child allowance.

Foster care allowance (*eestkostel või perekonnas hooldamisel oleva lapse toetus*) is paid for a child who is raised by foster parents, and who receives child allowance payments.

Childbirth allowance (*sünnitoetus*). One of the parents has the right to receive childbirth allowanceAn adoptive parent, guardian or caregiver has the right to receive childbirth allowance if childbirth allowance has not been paid for the same child earlier. As of June 2021, the allowance is also paid in case of stillbirth.

Allowance for multiple births of three or more children *(kolmikute ja enamaarvuliste mitmike toetus)* is a benefit effective from March 1, 2018. It is a monthly benefit (€1,000) paid for one parent, foster parent or guardian of triplets or higher order multiples until the children reach 18 months of age.

Adoption allowance (*lapsendamistoetus*). An adoptive parent has the right to receive adoption allowance if childbirth allowance has not been paid to the family for the same child earlier. The amount of the allowance is equal to the childbirth allowance.

Needs-based family benefit (*vajaduspõhine peretoetus*) was a means-tested monthly benefit that was paid to households with children whose average income during previous three months is below a certain threshold or who receive the subsistence benefit. The benefit was introduced in July 2013 and abolished since 2018.

Benefits compensating the periods out of the labour market:

Maternity benefit (until March 2022 *sünnitushüvitis***,** as of April 2022 *ema vanemahüvitis***)** was one of the benefits for temporary incapacity for work regulated by the *Health Insurance Act (Ravikindlustuse seadus)*. Since April 2022, the benefit is regulated *Family Benefits Act (Perehüvitiste seadus).* Up to March 2022, it was paid to an insured person in the event of pregnancy and maternity leave. Starting from April 2022, the benefit is paid to all mothers, including those unemployed. An employed expectant mother has the right to maternity benefit for 100 consecutive days, 70 days of which before the predicted date of delivery and 30 days after the delivery. Unemployed mothers become entitled to maternity benefit after delivery and will receive the benefit for 30 consecutive days. Before April 2022, a pregnant woman had the right to receive maternity benefit for 140 calendar days (or in the case of a multiple births or a delivery with complications, for 154 calendar days) if the pregnancy and maternity leave of the woman

commenced at least 30 calendar days before the estimated date of delivery. The entitlement is based on her average gross income taxed with social tax (i.e. earnings) in the previous calendar year. It is subject to the income tax.

Parental benefit (*vanemahüvitis*) compensates for labour income not received by stay-at-home parent after childbirth. Since April 2022 the benefit has been renamed as shared parental benefit (*jagatav vanemahüvitis*). The duration of the parental benefit was up to 18 months. As of April 2022, there are generally 475 days of shared parental benefit per person, although the total number of days depends on the mother's employment relationship prior to birth. In special cases, such as the death or absence of both parents, the child's caregiver is entitled to have the benefit for up to 545 days. The shared parental benefit enables both parents to be on a parental leave simultaneously for up to 60 days. Parents can use shared parental benefit from the time the child reaches 31 days of age until the child turns 3 years old. Since September 2019, the calculation of parental benefit is based on the income of the 12 calendar months preceding the pregnancy (9 months) (see also section 2.5.3). Shared parental benefit is also calculated in such manner. Partial accumulation with labour earnings is allowed. Parental benefit and shared parental benefit are subject to income tax.

1.2.3   Unemployment benefits and social assistance benefits

Unemployment insurance benefit (*töötuskindlustushüvitis*) is a benefit financed from the unemployment insurance contributions. The level of the UI benefit depends on the previous average gross earnings with an upper ceiling and a floor. The period for receiving the UI benefit depends on the contribution period and, as of 30 June 2023, also on the unemployment rates compared to previous rates. The base length of the UI benefit is, depending on the contribution period 180 to 300 days. High unemployment rates can extend the UI benefit period up to 120 days. Until 29 June 2023, the maximum duration of benefits ranged from 180 to 360 days, depending on the length of contribution period. In order to receive an unemployment insurance benefit, additional requirements must be met, such as being involuntarily unemployed, being registered as unemployed and looking actively for a job. UI benefit is subject to income tax. In November 2021, a measure was added that would have increased UI benefit duration by 60 days on one occasion if the UI benefit was set to expire between September 2021 and February 2022, and the unemployment rate rose over 8.5% in the month before the previous month.

Unemployment allowance (*töötutoetus*) is a flat rate benefit for those who do not fulfil the eligibility criteria for UI benefit (e.g., students, persons who terminated their previous employment voluntarily) or who have exhausted their UI benefits. The person must have been employed or engaged in activity equal to work (e.g., studying) for at least 180 days during the 12 months prior to filing an application in order to receive UA benefits. Additional activity criteria must be fulfilled. The UA benefits are not subject to income tax. UA benefit is formally income tested: only the unemployed whose income is below the unemployment assistance are entitled to the benefits. Compensation for the price increase of gas, electricity and district heating, which was paid between September 2021 and April 2022 to low-income families was not considered as income. Maximum duration of UA benefit is generally 270 days. In November 2021, a new measure was added which would have increased the UA benefit duration by 60 days on one occasion if the unemployment rate rose over 8.5% in the month before the previous month if the UA benefit was set to expire between September 2021 and February 2022.

Severance payments *(koondamishüvitised)*: According to the *Employment Contract Act (Töölepingu seadus)* and *Unemployment Insurance Act (Töötuskindlustuse seadus)* upon cancellation of an employment contract due to lay-off, an employer shall pay an employee compensation to the extent of one month's average wages of the employee, additionally, an employee has the right to receive a benefit upon lay-offs from unemployment insurance – i.e., insurance benefit in case of lay-offs. An insurance benefit shall be paid to an employee whose

employment relationship with an employer lasted for: 1) five to ten years - in the amount of one month's average salary or wages; 2) over ten years - in the amount of two months' average salary or wages.

There are also **training allowances** (*stipendium*) and **transport and accommodation allowances** (*sõidu- ja majutustoetus*) for the unemployed that are meant to cover actual costs of participation in active labour market measures (training, work practice). Since 1 May 2017 there are also allowances for formal training (*tasemeõppes osalemise toetus*), which are offered to unemployed as well as employed people who do not have professional training, who acquired their education more than 15 years ago or who cannot continue in their current work due to health reasons. The allowance is paid for taking up studies in vocational or higher education. In May 2017 training vouchers (*koolituskaart*) and support towards acquiring qualification certificate (*kvalifikatsiooni saamise toetamine*) were also introduced for employed people. These are not strictly benefits and therefore not included in EUROMOD.

Subsistence benefit (*toimetulekutoetus*) is the main means-tested benefit guaranteeing a minimum income to all residents. Households whose income after payment for housing expenses, calculated according to certain general criteria and specific rules set by municipalities, is below the subsistence level are entitled to these benefits. From July 2022, mortgage payments will also be considered as housing costs when calculating the eligibility and the amount of the benefit. Duration is unlimited but granted and renewed on a monthly basis.

Annual refund to low-paid employees (*madala sissetulekuga töötava isiku iga-aastane tagasimakse)* is a benefit scheme, which was in effect in 2016 only. The only pay-outs were delivered in spring 2017 on the basis of submitted tax report for 2016. More detailed information could be found in previous reports.

Pensioner's living alone allowance *(üksielava pensionäri toetus)*. An annual benefit since 2017, paid to pensioners living alone and whose pension is smaller than the established threshold.

1.2.4   Social benefits for the disabled

The **social benefits paid to people with disabilities (*puuetega inimeste sotsiaaltoetused*)** depend on the extent of their disability, divided into three categories: moderate, severe and profound. The degree of severity of disability and the necessity for additional expenses due to the disability of a person is established taking into account restrictions on participation in daily activity and social life and the need for personal assistance, guidance or supervision. There are several different benefits: **disabled child allowance, the disability allowance for a person of working age, the disability allowance for a person of retirement age, disabled parent's allowance, a rehabilitation allowance, an education allowance, an in-service training allowance,** and **a work allowance.** The benefits are calculated on the basis of the rate of social benefits for disabled persons. Benefits are non-taxable. It often accumulates with pension for incapacity to work (*töövõimetuspension*) and old-age pension (*vanaduspension*). Since 1st January 2016, the administration of rehabilitation allowance and work-related allowance moved from the Estonian National Insurance Board to the Unemployment Insurance Fund as part of the Work Ability Reform.

The state also compensates a part of the cost of the device to disabled people, the elderly and children, who need prostheses, orthopaedic and other aids. Local municipalities may pay additional allowances for caregivers.

1.2.5   Health insurance benefits

Health insurance benefits (*ravikindlustushüvitis*) are regulated by the *Health Insurance Act* (*Ravikindlustuse seadus*) and compensate the insured persons for the cost of disease prevention and treatment, the cost of medicines and medical appliances and provide benefits for temporary incapacity for work and other benefits. Insured persons are residents for whom the social tax is paid by their employer, the state or by themselves if self-employed (this is discussed in detail in section 1.4), as well as equivalent persons under the Health Insurance Act for whom social tax is not paid. Health insurance benefit is either in kind (health service, necessary medicinal products or medical device), or in cash. Health insurance benefits in cash are the following.

Benefits for temporary incapacity for work (*ajutise töövõimetuse hüvitis*) provide an earnings-related benefit for periods of absence from work due to illness or for caring for another person. The types of benefit for temporary incapacity for work were until March 2022 classified as following: **sickness benefit**; **maternity benefit** (see above); **adoption benefit** and **care benefit**. However, maternity benefit and adoption benefit are as of April 2022 regulated by the Family Benefits Act (*Perehüvitiste seadus*) so they are no longer part of this category. The benefits for incapacity for work are calculated on the basis of the insured person's income (on which the social tax was paid during the previous year). The replacement rate and duration of benefits varies.

Adult dental care benefit (*täiskasvanute hambaravihüvitis, tasuta hambaravi ja proteesihüvitis*) compensates dental treatment for all adults in the maximum amount of €40 per year (person pay at least 50% of the invoice themselves). For some groups (such as old-age pensioners, work incapacity pensioners, pregnant women and mothers of children up to 1 year of age and those having greater need for dental treatment because of sickness) the compensation is higher – the maximum amount of €85 per year (person pay at least 15% of the invoice themselves). As of January 2022, the circle of recipients of the benefit capped at €85 per year was expanded to the unemployed and recipients of subsistence benefits. In some cases, dental care is free of charge (e.g. adults with severe physical and mental disabilities). In addition, for some groups a certain amount of dentures in covered by the Health Insurance Fund.

Supplementary benefit for pharmaceuticals (*täiendav ravimihüvitis*) is for those people who have high expenditures on medicines. Since 2018, it is an in-kind benefit, which is automatically deducted from the expenditure on medicines. Until 2017, it was monetary benefit, where people had to apply for the benefit.

1.2.6   Local benefits

According to the *Local Government Organisation Act (Kohaliku omavalitsuse korralduse seadus)* local municipalities can provide local benefits to their residents. Local benefits vary largely across municipalities, differing by type, amounts, application conditions etc. According to *the Social Welfare Consolidation Act* (*Sotsiaalhoolekande seadus*) there are 13 social aids that local governments must provide, such as childcare service, shelter service and social transport service. The most common benefits are for birth support, in addition emergency support, large family benefits etc are present in many municipalities.

1.3   Social contributions

Social insurance contributions finance pensions, health care, and unemployment insurance benefits. Previous contributions determine the eligibility and amount of contributory benefits (unemployment insurance benefits, maternity benefits, incapacity to work benefits, pensions).

Social tax (*sotsiaalmaks*) is paid by employers and self-employed[2] and funds state pension insurance and health insurance. Tax rate is 33% and the tax base is gross wage. 13% is transferred into the Estonian Health Insurance Fund and 20% transferred into pension insurance schemes.

In case the person participates in the funded pension insurance scheme (the so-called 2nd pillar of the pension scheme that is voluntary since 2021, but was mandatory before that), 4% of the social tax is shifted from the state pension insurance scheme to the private pension scheme and additional 2% contribution of gross wage will be paid by the <u>employee</u> into the pension scheme 2nd pillar (see Figure 1 below). Since 2024, it is possible to increase the contributions to the funded pension insurance scheme by the employee from 2% to 4% or 6%. Employee may also contribute to the voluntary pension schemes (3rd pillar) which can be deducted from the income tax base up to a certain limit. There were temporary changes in funded pension contributions in 2009-2010, 2014-2017 and 2020.

There is a minimum monthly base for social tax calculation, set by the *State Budget Act (Riigieelarve seadus)*. There is no upper ceiling of social contributions, except for the self-employed. For certain inactive groups of people (e.g., parents on maternity leave, registered unemployed, military service, etc.) the state pays the social tax, based on the minimum social tax base in most cases, i.e., credited contributions. In addition, the state pays additional contributions to the funded pension scheme (second pillar) on parental benefits for those who are joined the 2nd pillar. Some of the categories (recipients of unemployment benefits and family benefits) are also included in EUROMOD.

Figure 1. Social tax and contributions to pension schemes, 2024
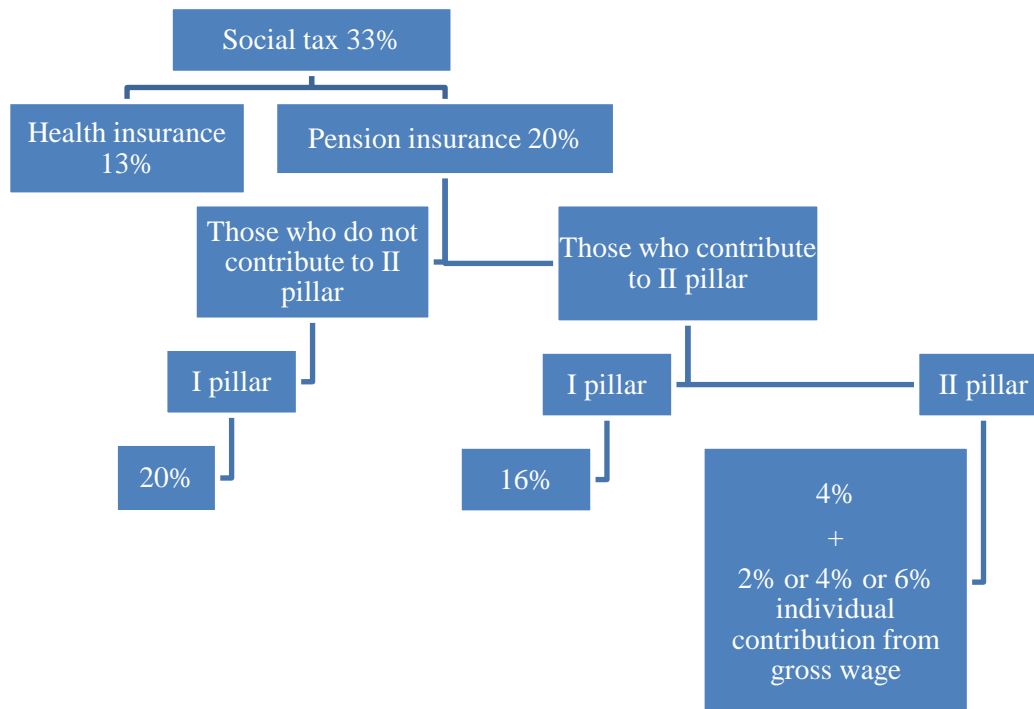
Voluntary private pension contributions (3rd pillar) may be in two different forms: a) pension insurance policies offered by licensed private insurance companies; b) units of voluntary pension funds, which are managed by private fund managers. The third pillar pension market is dominated

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[2] Throughout the report, we use the self-employed to refer to its legal concept, i.e., sole-proprietor (*füüsilisest isikust ettevõtja, FIE*), unless otherwise specified.

by insurance companies, partly due to more preferential tax treatment compared to voluntary pension funds.

Unemployment insurance contributions (*töötuskindlustusmakse*) form a compulsory insurance scheme that covers an employee in case of becoming unemployed, collective closing or insolvency of the employer, and an employer in case of collective redundancies. Unemployment insurance contributions are paid by employees and employers. The unemployment contribution payment base matches the social tax base. Generally, the employee's share is withheld from the gross wage and the employer pays the contribution in addition to the social tax. The employers' obligation to calculate and withhold the unemployment insurance premiums for an insured person shall terminate on the last day of the month when the insured person attains a pensionable age or is granted early-retirement pension, however employer is obliged to continue the unemployment insurance premiums payable by employers.

Self-employed are not subject to unemployment insurance contributions. Members of the management or controlling bodies of legal persons are making contributions and are covered. Also, persons who receive compensation when leaving their position (ministers, parliament members etc) do not hold the unemployment insurance contribution payment obligation. The unemployment insurance contribution rates are usually set annually.

1.4   Taxes

Personal income tax (*füüsilise isiku tulumaks*) is paid on personal income. The base of the income tax is relatively broad. The main exceptions are various child benefits and social assistance benefits. Different income sources are taxed uniformly (with a few exceptions). The personal income tax system is an individual system. Before 2017, married couples could also file a joint tax report if they wished (to share tax allowances). Since 2017, joint declarations were abolished though some tax allowances could still be shared between spouses. There are several allowances and deductions, which are discussed in detail in Section 2.7. The main tax allowances apply to the withholding tax as well, the rest can be claimed in the following year when filing the tax report. Therefore, there is often a difference between taxes withheld and taxes paid after filing a tax report. In recent years, there have been several changes regarding tax allowances and deductions. Starting from 2023, the tax allowance for people of pensionable age is equal to the amount of an average pension and in 2024, tax allowances for spouses and for children were abolished, along with tax deductions for housing loan interest payments. Taxable income from **self-employment** is equal to gross income from self-employment less related costs minus special allowances for the agricultural income, and minus social insurance contributions, except contributions to the funded pension scheme. The latter can be deducted from total income a self-employed person has. Taxable business income is derived on individual basis.

Since January 2018, a lower tax rate of 14% will be applied to regularly paid dividends. However, in this case income tax rate of 7% will be charged on all dividends and other profit distributions received by a person.

Land tax *(maamaks):* a state tax received in full amount by local municipalities. The amount of land tax is calculated by multiplying the taxable price of the land by the land tax rate. The rate of land tax is established by the local government council annually. The range of land tax was until 2023 between 0.1 and 2.5%. From 2024, the land tax range is between 0.1 and 1%. Land tax is paid by the owner of the land, in certain cases also by the user of the land. Land under residential buildings up to 0,15 ha per taxpayer in urban areas and 2 ha in rural regions is exempted, and there are further allowances for pensioners.

Value Added Tax *(käibemaks):* the standard rate in Estonia was 20% of the taxable value of a good or service until the end of 2023. From 2024, the standard rate for value added tax is 22%.

Reduced rates (9% and 0%) apply to specific services and goods. Due to the ongoing conflict in Ukraine, there was a tax reduction for press publications taking effect in August 2022, reducing the value added tax from 9% to 5%.

Excise taxes *(aktsiisimaksud):* excise duties are set for alcohol, tobacco, electricity, fuel and non-alcoholic beverage packages. In recent years, several excise tax rates have been changed. For instance, in 2018 the excise rate for alcohol was raised, but in July 2019 it was reduced again. In May 2020, the excise rate for fuel was reduced. Due to the COVID pandemic, excise rates on certain fuels and electricity have been reduced between May 2020 and April 2022[3]. In May 2022, excise rate for special use fuel was reduced temporarily until the end of the year.

There are a few other minor taxes (tax on gambling, tax on heavy vehicles, customs duties, local taxes), which provide a relatively small share of revenue and do not affect household budgets considerably.

1.5   Summary of the COVID-related tax-benefit policies

Following Covid-19 outbreak, the Estonian Unemployment Insurance Fund offered **wage compensation** to employers to mitigate the impact of the Covid-19 outbreak. The employers had to meet at least two of the following situations: i) the employer's turnover had decreased by 30% or more compared to the same month in 2019; ii) the employer was not able to provide the agreed amount of work to 30% or more of his/her employees; and iii) the employer had to reduce by 30% or more the wage of at least 30% of his/her employees. The compensation was 70% of the employees' gross wage (with a maximum monthly amount of €1,000); employees could receive it for maximum two months during the period between 1 March and 31 May 2020. In addition, the employer had to pay at least €150 to the employee. In total, the employee received at least the minimum wage (€584) or due to working part-time the income remained the same.

In May 2020, it was decided that the measure would have continued in June, but the requirements were changed: 1) the employer's turnover had decreased by 50% or more compared to the same month in 2019 and 2) one of the following situations applied: i) the employer was not able to provide the agreed amount of work to 50% or more of his/her employees; and ii) the employer had to reduce by 30% or more the wage of at least 50% of his/her employees. The compensation was 50% of the employees' gross wage (with a maximum amount of €800 and a minimum amount equal to the minimum wage). In addition, the employer was again required to contribute by at least €150.

Later, between 28 December 2020 and 31 January 2021, when stricter restrictions were imposed in the Counties of Harju and Ida-Viru (there are 15 counties in Estonia), the Unemployment Insurance Fund offered **salary grants** to companies, foundations, non-profit associations, and self-proprietors whose employees were employed in Harju County or Ida-Viru County and who were active in specific sectors, such as accommodation and catering establishments, sports facilities, recreational activities and culture. The grant was paid in the measure of 1.5 times the salary cost in November 2020 with a limit of €180,000 per company. For the self-proprietors, the amount of support was fixed at 1.5 times the minimum wage in 2020 (i.e., €876). As the recipients are not known in the input data and this measure was paid to companies and not employees (maximum amounts were also defined at company level), it is not simulated in EUROMOD.

Between March and April 2021, the Unemployment Insurance Fund offered **temporary subsidy** to employers who experienced disruptions because of the restrictions in place. This measure was quite similar to wage compensation. The employers had to meet one of the following situations:

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[3] More information is available at: https://www.emta.ee/et/ariklient/aktsiisid-vara-hasartmang/kutus-ja-elektrienergia/aktsiisimaarade-ajutine-vahendamine

i) the employer's turnover or income had decreased by 50% or more compared to the average turnover or income between December 2019 and February 2020 or July 2020 and December 2020; ii) the employer was not able to provide the agreed amount of work to his/her employees or had to reduce the wage of his/her employees. The compensation was set to 60% of the employees' gross wage (with a maximum monthly amount of €1,000). In addition, the employer had to pay at least €200 to the employee. In total, the employee working full-time received at least the minimum wage (€584). Temporary subsidy was also paid to self-proprietors, whose business income in 2020 had decreased by 50% compared to 2019. For the self-proprietors, the amount of support was fixed at minimum wage (€584).

Sickness benefit is paid in case of illness, quarantine, injury caused because of an occupational disease or an accident at work and traffic injury. In case of illness or quarantine, this benefit is usually paid by the employer from day 4 to day 8 where, from day 9, it is covered by the Health Insurance Fund. However, because of the Covid-19 crisis, the Health Insurance Fund started to pay also sickness benefit from day 1 to day 3 (70% of the income) between 13 March 2020 and 17 May 2020. Moreover, between January 2021 and June 2023, employers paid this benefit from day 2 to day 5 whereas, since day 6, the benefit was covered by the Health Insurance Fund.

Sickness benefit is not simulated in EUROMOD. The simulation of wage compensation is described in more detail in section 2.5.14.

1.6 Summary of the energy-crisis and inflation related tax-benefit policies in 2022 and 2023

On 28 October 2021, the Government approved two measures targeting issues related to high energy prices. First, 50% of the electricity network service fee was deducted from the electricity bill of all private and business consumers from October 2021 to March 2022. Second, below-median income households (i.e. first person of the household earns below the median level of €1126, the scales are 0.5 for every subsequent member aged 14 and older and 0.3 for members younger than 14) received 80% refund for the price increase of electricity, gas, and district heating. The measure was intended to last from September 2021 to March 2022, but was extended by a month, due to prices remaining high. The corresponding reimbursement was paid for from profits from the EU Greenhouse gas emission allowance trading system, which were higher than estimated (approximately 37 million). Households could apply for reimbursement to the local government.

On 25 January 2022, the Government adopted two additional measures. First, 100% of gas network fees were reimbursed to all private and business consumers between January 2022 and March 2022. Second, a price cap was set on electricity and gas for private consumers. Any excess was deducted from the household's monthly bill from January 2022 to March 2022.

On 3 February 2022, the Government decided to take additional action to mitigate the price increase in district heating. This measure refunded 65% of the price increase of district heating. The measure was applied automatically to all households between February 2022 and March 2022.

To combat the effects of inflation, a **one-time price relief support** of €50 was paid to all pensioners who have reached retirement age, persons with reduced work ability and recipients of child support in November 2022.

To alleviate high energy prices in the autumn-winter season of 2023, two measures were implemented – energy cost compensations for households and the universal electricity service.

Energy cost compensations were a temporary compensation scheme for alleviating electricity, gas and district heating costs of all private households. The scheme was in place from October 2022 to March 2023. The compensations were automatic, meaning that the seller reduces the prices on the invoice themselves and the consumers would receive invoices with reduced costs.

Universal electricity service is essentially an electricity package with a fixed price point that households can voluntarily join. The price of this service is formed outside of the stock exchange and is based on the electricity production cost that has been agreed upon with the Competition Authority. The service is in use since 1 October 2022 and is established until the end of April 2026. If the service is not extended, the consumer must choose a new contract.

The one-time price relief support is simulated in EUROMOD (detailed in section 2.5.15). However, other measures are not simulated either because there is insufficient information on household energy consumption or because they are outside the scope of the model.

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

2.1   Scope of simulation

Not all the taxes and benefits mentioned in the previous section are simulated in EUROMOD. Some are beyond its scope entirely and are neither included in the EUROMOD database nor in its output income variables (e.g., indirect taxes). Others are not possible to simulate accurately with the available data. They are included in the database and may be chosen as components of output variables, but they are not simulated in the model. Table 2.1 and Table 2.2 classify each of the main tax-benefit instruments (and some minor ones introduced above) into one of these three groups (simulated, partially simulated, not simulated) and provide a brief explanation as to why the instrument is not fully simulated if this is the case. In the following tables we present information on EUROMOD using the most recent dataset of EMSD database. Information on earlier input datasets for the Estonian model can be found in earlier country reports.

Most of the benefits that are simulated in EUROMOD are universal family benefits that depend on the number of children and their age. Also, the subsistence benefit, as a support of last resort, are simulated, although using several simplifications. Apart from unemployment benefits, other benefits that depend on contribution history, like various pensions and health insurance benefits, are not simulated, because the contribution history is not available in the dataset. Although the same is true for unemployment benefits, these are simulated using common assumptions across countries.

Table 2.1. Simulation of benefits in EUROMOD [2021-2024]

Benefit	Variable	2021	2022	2023	2024	Comments
Unemployment insurance benefit (*töötuskindlustushüvitis*)	bunct_s	PS	PS	PS	PS	Eligibility from data
Unemployment allowance (*töötutoetus*)	bunnc_s	PS	PS	PS	PS	Eligibility from data
Severance payments (*koondamishüvitised*)	yunsv	I	I	I	I	No data on full contribution history
Paid sick leave	bhl	I	I	I	I	No data on contribution history and health

Benefit	Variable	2021	2022	2023	2024	Comments
Disability pension (*töövõimetuspension*)	pdi	I	I	I	I	No data on contribution history, no exact data on health status
Work ability allowance (*töövõimetoetus*)	bdirw	I	I	I	I	No data on contribution history, no exact data on health status
Social benefits paid to people with disabilities		IA	IA	IA	IA	No exact data on health status. Income is part of "other benefits" (bsals) or disability pension (pdi).
Old age pension (*vanaduspension*)	poa00	I	I	I	I	No data on contribution history
National pension (minimum old age pension, *rahvapension*)		IA	IA	IA	IA	No data, part of other pensions
Survivors' pension	psu	I	I	I	I	No data on contribution history
Maternity benefit (*sünnitushüvitis*)	bmapr	S*	S*	S*	S*	No data on contribution history
Parental benefit (*vanemahüvitis*)	bmact	S*	S*	S*	S*	No data on contribution history
Childcare allowance (*lapsehooldustasu*)	bcc00_s	S	S	S	S	
Child allowance (*lapsetoetus*)	bch00_s	S	S	S	S	
Single parent child allowance (*üksikvanema lapsetoetus*)	bchlp	IA	IA	IA	IA	No data on the birth certificate of the child, or not included separately
Childbirth allowance (*sünnitoetus*)	bchba_s	S	S	S	S	
Parent's allowance for families with seven or more children (*seitsme- ja enamalapselise pere vanema toetus*)	bcclg_s	S	S	S	S	Allowance for families with many children (since 1 July 2017)
Subsistence benefit (*toimetulekutoetus*)	bsa00_s	S	S	S	S	
Pensioner's living alone allowance (*üksi elava pensionäri toetus*)	bsape	S	S	S	S	From 2023, a more accurate registry-based variable is included in input data
Scholarships and grants (*õppetoetused ja stipendiumid*)	bed	I	I	I	I	No data on grades
Other benefits (not explicitly stated in the data set)	bsals	IA	IA	IA	IA	Only partially aggregated data
Price relief support (*hinnatõusu leevendamise toetus*)	bsaxp_s	-	S	-	-	A one-off price relief measure offered in November 2022
Wage compensation scheme	bwkmcee_s	PS*	-	-	-	No data on employees entering in the scheme

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; "IA": *included* in the micro-data (in an *aggregate* income variable) 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 (S* and PS* denote that simulations are not part of the baseline scenarios).

Table 2.2. Simulation of taxes and social contributions in EUROMOD [2021-2024]

Taxes and social contributions	Variable	2021	2022	2023	2024	Comments
VAT	-	S	S	S	S	Calculations based on extended input files with consumption expenditures from HBS
Excise duties	-	S	S	S	S	Calculations based on extended input files with consumption expenditures from HBS
Employer's social insurance contributions	ils_sicer					
Unemployment insurance contributions	tscerui_s	S	S	S	S	
Pension insurance contributions (1st pillar and the transfer to the 2nd)	tscerpi_s ttferpi_s	S	S	S	S	
Health insurance contributions	tscerhl_s	S	S	S	S	
Employee social insurance contributions	ils_sicee					
III pension pillar		I	I	I	I	Voluntary size of contributions
Unemployment insurance contributions	tsceeui_s	S	S	S	S	
Funded pension insurance contributions (2nd pillar)	tpceepi_s	S	S	S	S	
Self-employed social insurance contributions	ils_sicse					
Health insurance contributions	tscsehl_s	S	S	S	S	
Pension insurance contributions (1st pillar and the transfer to the 2nd)	tscsepi_s ttfsepi_s	S	S	S	S	
Funded pension insurance contributions (2nd pillar)	tpcsepi_s	S	S	S	S	
Contributions paid on social benefits by the central government	ils_sicct					
Health insurance contributions for those receiving unemployed benefits	tsccthl_s	S	S	S	S	
Health and pension insurance contributions (the 1st pillar) for those receiving parental benefit, childcare allowance or large family parental allowance	tscctpi_s tsccthl_s	S	S	S	S	
Pension insurance contributions (the 2nd pillar) for those receiving parental benefit	tpcctpi_s	S	S	S	S	
Income Tax (final)	tin_s	S	S	S	S	
Withholding income tax	tinwh_s	S	S	S	S	
Land tax	tpr	I	I	I	I	No information on value of land or tax rates
Other local taxes		E	E	E	E	

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

All labour taxes and social insurance contributions are simulated. As social insurance contributions (social tax, unemployment insurance contributions) are largely proportional to gross

labour earnings, they can be easily calculated. For the income tax, both final tax liabilities and withheld tax amounts are calculated. The final tax liability takes into account additional deductions that can only be applied in the annual tax declaration. Other taxes, such as capital income tax, land tax, or indirect taxes, are not simulated in the current version of the model as there are little or no data for that purpose or these instruments remain outside the scope of EUROMOD altogether.

2.1.1 Policy constants

Main policy parameters are defined as constants in a separate module. These include benefit amounts, tax and contribution rates, tax allowances, various upper and lower thresholds, and pension age. Their values usually vary over time. Some of them are specified on a monthly and some on a yearly basis, corresponding to how they are defined in legislation. In addition, there are changes in the currency of monetary values as Estonia changed from *kroon* to euro on 1 January 2011.

Table 2.3. Policy parameters defined as constants in EUROMOD

Parameter	Period	Reference name	Policies where used
Standard weekly working hours	-	$lhw	Minimum wage, maternity benefit, parental benefit
Qualifying period for UA: min number of months in work	-	$UAB_QperMin	unemployment assistance benefit
Qualifying period for UA: over last … months	-	$UAB_QperTot	unemployment assistance benefit
Qualifying period for UI: min number of months in work	-	$UI_QperMin	unemployment insurance benefit
Qualifying period for UI: over last … months	-	$UI_QperTot	unemployment insurance benefit
Maximum benefit duration for singletons (days)	-	$MB_MaxDur1	maternity benefit
Maximum benefit duration for multiple birth (days)	-	$MB_MaxDur2	maternity benefit
Maximum benefit duration for unemployed mothers (days)	-	$MB_MaxDurUn	maternity benefit
Minimum benefit duration before the birth (days)	-	$MB_MinDurPre	maternity benefit
Maximum benefit duration (days since the start of maternity leave)	-	$PB_MaxDur	parental benefit
Maximum benefit duration if not eligible for maternity benefit (months since birth)	-	$PB_MaxDur_noMB	parental benefit
Maximum benefit duration if unemployed (days since the end of maternity leave)	-	$PB_MaxDurUn	parental benefit
Labour market situation compared to previous periods (yearly average). 1- good; 2 - normal; 3 - bad	-	$bunct_LabSit_index	unemployment insurance benefit
Lower limit for the shortest work history bracket	-	$bunct_thres1	unemployment insurance benefit
Lower limit for the medium work history bracket	-	$bunct_thres2	unemployment insurance benefit
Lower limit for the lenghtiest work history bracket	-	$bunct_thres3	unemployment insurance benefit
Duration for the shortest work history bracket	-	$bunct_my1	unemployment insurance benefit
Duration for the medium work history bracket	-	$bunct_my2	unemployment insurance benefit

Parameter	Period	Reference name	Policies where used
Duration for the lenghtiest work history bracket	-	$bunct_my3	unemployment insurance benefit
Maximum duration	-	$bunnc_maxmy	unemployment allowance
Average wage	m	$AvWage	average wage
Minimum wage	m	$Minwage	minimum wage, social insurance contributions by self-employed, unemployment allowance
Lagged minimum wage	m	$MinWage_lag1	unemployment insurance benefit
Average taxable earnings (in T-2)	m	$PB_AvEarn	parental benefit, contributory SIC
Amount of unemployment allowance (UA)	m/d	$UAB_amount	unemployment insurance benefits and unemployment allowance
Official pension age (males)	-	$PensionAgeMale	unemployment benefits and employee unemployment insurance contributions
Official pension age (females)	-	$PensionAgeFemale	unemployment benefits and employee unemployment insurance contributions
Child Allowance Rate (CAR) – base amount for child benefits	m	$CB_Base	child allowances
Childcare Allowance Rate (CCR) - base amount for childcare benefits	m	$CC_Base	childcare benefits
Amount for first child	m	$CB_Ch1	child allowance
Amount for second child	m	$CB_Ch2	child allowance
Amount third+ child	m	$CB_Ch3plus	child allowance
Amount per child with 3 children	(q)	$CB_Fam3	child allowance for large family
Amount per child with 4-5 children	(q)	$CB_Fam4_5	child allowance for large family
Amount per child with 6+ children	(q)	$CB_Fam6plus	child allowance for large family
Amount for child aged under 1	m	$CC_Age0_1	childcare allowance
Amount for child aged under 3	m	$CC_Age0_3	childcare allowance
Amount for child aged 3-8	m	$CC_Age3_8	childcare allowance
Amount with 3-6 children	m	$CC_Fam3_6	parental allowance for large families
Amount with 7+ children	m	$CC_Fam7plus	parental allowance for large families
Amount per child	(y)	$BE_Amount	school allowance
Main rate	y	$BA_Ch1	birth allowance
Secondary rate	y	$BA_Ch2plus	birth allowance
Income limit	m	$SACH_IncLim	needs-based family benefit
Amount for families with 1 child	m	$SACH_Fam1	needs-based family benefit
Amount for families with 2+ children	m	$SACH_Fam2plus	needs-based family benefit
Part of child allowance (for 3rd+ child) disregarded for means-test	m	$SACH_Ch3plus	needs-based family benefit
Income limit	m	$SAPE_IncLim	pensioner's living alone allowance
Benefit amount	y	$SAPE_Amount	pensioner's living alone allowance
Maximum amount / income limit	m	$SA_AmountMain	subsistence benefit
Maximum amount / income limit - increase that took place in June 2022	m	$SA_AmountH	subsistence benefit

Parameter	Period	Reference name	Policies where used
Subsistence addition	m	$SA_AmountExtra	subsistence benefit
Average housing costs	m	$SA_AvHhCost	subsistence benefit
Take-up threshold	m	$SA_TakeUpLim	subsistence benefit
Average taxable wage in the previous calendar year	d	$UI_AvEarn	unemployment insurance benefit
Minimum level of UI benefit	(m)	$UI_LowLim	unemployment insurance benefit
Benefit amount	(m)	$TINRF_Amount	Refund to low-paid employees
Withdrawal rate	-	$TINRF_WdrRate	Refund to low-paid employees
SIC minimum base	m	$SIC_MinBase	social insurance contributions by employer, self-employed and state
SIC rate for the pension contributions (the 1st pillar)	-	$SIC_RatePens1	social insurance contributions by employer, self-employed and state
SIC rate for the health contributions	-	$SIC_RateHealth	social insurance contributions by employer, self-employed and state
SIC rate for the pension contributions (transferable from the 1st to the 2nd pillar)	-	$SIC_RatePens1to2	social insurance contributions by employer, self-employed and state
Temporary SIC rate for the pension contributions (transferable from the 1st to the 2nd pillar)	-	$SIC_RatePens1to2Temp	social insurance contributions by employer, self-employed and state
SIC rate for the pension contributions (the 2nd pillar)	-	$SIC_RatePens2	social insurance contributions by employer, self-employed and state
Temporary SIC rate for the pension contributions (the 2nd pillar)	-	$SIC_RatePens2Temp	social insurance contributions by employer, self-employed and state
SIC rate for the pension contributions (the 2nd pillar) for those on maternity leave	-	$SICCT_RateMatLeave	social insurance contributions by state (credited contributions)
Employer SIC rate for the unemployment insurance contributions	-	$SICER_RateUI	social insurance contributions by employer
Employee SIC rate for the unemployment insurance contributions	-	$SICEE_RateUI	social insurance contributions by employee
Income tax rate	-	$IT_StdRate	withholding income tax and final income tax
Reduced income tax rate for private pensions	-	$IT_LowRate	withholding income tax and final income tax
Amount of basic allowance	y	$IT_BasicAlw	withholding income tax and final income tax
Child allowance for income tax, for each child from Nth	-	$IT_ChildAlwMult	final income tax
Amount of child allowance	y	$IT_ChildAlw	final income tax
Child allowance for income tax, for each child from Nth	-	$IT_ChildAlwMult3plus	final income tax
Amount of child allowance from 3+ children	y	$IT_ChildAlw3plus	final income tax
Amount of pension allowance	y	$IT_PensionAlw	withholding income tax and final income tax
Amount of allowance for those in pension age	y	$IT_PensionAgeAlw	income tax: pensionable age allowance
Upper limit on voluntary pension contributions, amount	y	$IT_PensUpLimAmount	final income tax
Upper limit for voluntary pension contributions, rate	-	$IT_PensUpLimRate	final income tax
Upper limit on deductible mortgage interest payments	y	$IT_ExpUpLimMI	final income tax
Upper limit on deductible expenditure, amount	y	$IT_ExpUpLimAmount	final income tax

Parameter	Period	Reference name	Policies where used
Upper limit on deductible expenditure, rate	-	$IT_ExpUpLimRate	final income tax
Agriculture allowance for income tax	y	$IT_AgriAlw	self-employed tax allowance, final income tax
Average taxable earnings (t-2)	m	$PB_AvEarn	parental benefit
Minimum benefit amount	m	$PB_MinAmount	parental benefit
Maximum benefit amount	(m)	$PB_MaxAmount	parental benefit
Pensions taxed at the lowest rate	-	$IT_Pens_Nt	final income tax
Pensions taxed at the second lowest rate	-	$IT_Pens_LowTx	final income tax
Benefit amount rate of previous earnings in 100 first days of receiving the benefit	-	$bunct_rate1	unemployment insurance benefit
Benefit amount rate of previous earnings from 101 days of receiving the benefit	-	$bunct_rate2	unemployment insurance benefit
Rate of deductible rental income	-	$tin_DedRentInc_rate	final income tax

Notes: "d": daily; "m": monthly; "y": yearly; "-": non applicable.

2.2 Main policy changes

The main policy changes in the period of 2021-2024 were as follows.

Changes in 2021:

- In January 2021, the daily rate of unemployment allowance increased from €6.1 to €9.42.
- Since January 2021, the statutory funded pension scheme is voluntary. Thus, it is possible to i) continue payments as before; ii) opt out of the pension fund and withdraw all previous contributions; iii) suspend new payments and leave previous contributions in the fund; iv) to transfer payments and shift the contributions from the pension fund to an individual pension investment account.
- Since January 2021, the taxation of II and III pillar pay-outs changed. In more detail, lifetime pension, fixed-term pension or payments to a person who have no work ability are not liable of income tax. However, tax rate on lump-sum private pensions which are disbursed no more than 5 years before the retirement age is 10%.
- In November 2021, a measure was added that increased the durations of unemployment insurance benefit and unemployment allowance by 60 days on one occasion if the benefit was set to expire between September 2021 and February 2022 and the unemployment rate rose over 8.5% in the month before the previous month.

Changes in 2022:

- In April 2022, there were some changes made in the parental benefit system. Maternity benefit general duration was reduced from 140 days to 100 days. The duration of the parental benefit was increased from 435 days to now being 475 days with some exceptions. The number of days the parents will be able to receive benefits compensating the period away from the labour market will therefore generally stay the same as before April 2022. In addition, both parents are now able to be on parental leave and receive parental benefits simultaneously for up to 60 days.
- In the event of stillbirth or passing of the child before reaching 70 days of age, the mother is entitled to maternity benefit and the father is eligible for paternity benefit. In case of stillbirth, the mother is entitled to childbirth allowance.

- Between September 2021 and April 2022, several different aids were temporarily offered to mitigate the increase of energy prices. However, the measures will not be simulated in the model due to a lack of data regarding the energy consumption of households or the amounts compensated.
- In order to address the challenges posed by high energy prices during the autumn-winter season of 2022-2023, two key measures were implemented. First, energy cost compensations were introduced to provide financial support to households facing increased energy expenses. Additionally, the universal electricity service was established to ensure access to affordable electricity for all. Furthermore, in November 2022, a one-time price relief support was offered to pensioners who have reached retirement age, individuals with reduced work ability, and recipients of child support, aiming to alleviate the impact of inflation and provide temporary financial relief.

Changes in 2023:

- Since January 2023, several family benefits have undergone significant increases. Notably, the child allowance for the first and second child has risen from €60 to €80 per month, while the single parent's child allowance has experienced a substantial increase from €19.18 to €80 per month. The most substantial increment, however, has been implemented for benefits for families with many children. Previously, families with 3-6 children received €300 per month, but now they are entitled to €650 per month. Families with 7 or more children have seen their benefit rise from €400 to €850.
- Eligibility criteria for family benefits benefits have been revised, extending all child benefits to children under 19 instead of the previous cut-off age of under 16.
- A gradual phase-out scheme has been introduced for the benefit for families with many children, allowing for a gradual reduction in the benefit amount until its eventual conclusion when the youngest child turns 24.
- In January 2023, significant adjustments were made to the tax allowances for personal income tax. The yearly tax allowance was raised from €6,000 to €7,848, providing individuals with a higher threshold before they are required to pay taxes on their income. Furthermore, individuals of pensionable age now benefit from a tax allowance equivalent to the amount of an average pension, which stands at €704 per month and €8,448 per year in 2023.
- Since 30 June 2023, the UI benefit is in addition to the contribution period, dependent on the current unemployment rates compared to the previous ones. In addition, the standard UI benefit periods which are applied if the unemployment rates are lower compared to previous periods, decreased from 180-360 days to 180-300 days.

Changes in 2024:

- In January 2024, the standard rate of VAT increased from 20% to 22%.
- Since January 2024, it is possible to submit an application to increase the contribution rates for the statutory funded pension scheme from 2% to 4% or 6%. The changes will take place from 2025.
- In 2024, several income tax allowances and tax deductions were abolished, including the tax allowances for children and spouses and tax deductions for housing loan interest payments.
- From January 2024, the amounts for the benefit for families with many children decreased from €650 to €450 per month for families with 3-6 children and from €850 to €650 per month for families with 7+ children.

2.3 Order of simulation and interdependencies

Table 2.3 shows the order in which the main elements of the Estonian system in 2021-2024 are simulated. Policies, which are included into the model, but not used in the EUROMOD baseline simulations are marked as "*off*". Policies, which are not applicable in a specific year are marked as "n/a". The spine structure is largely the same for all four years.

The Estonian policy simulations start with the minimum wage (switched off in the baseline). Family benefits and unemployment benefits are simulated next, as credited social contributions depend on these and some benefits are taxable. After the benefits, we simulate employee and employer social insurance contributions. The contributions are deducted from the income tax base and therefore need to be simulated before the personal income tax.

The last policy included in the spine is tco_ee (consumption taxes). It is placed at the very end because consumption tax liabilities (VAT and excises) depend on household consumption expenditures, and these are estimated by the model based on the income shares (xs_* variables included in the input data) and simulated disposable income (ils_dispy). This is why before running any simulation of consumption tax policy it is required to activate all the other policies intervening in the simulation of disposable income.

More specifically, there are the following dependencies between the instruments:

- Minimum wage (if switched on) affects employment earnings which is the basis for employer and employee SIC, income tax, subsistence benefit, needs-based family benefit, and annual refund to low-paid employees.

- Contributory benefits (maternity benefit, parental benefit, unemployment insurance benefit) are subject to income tax.

- The duration of parental benefit is dependent on the duration of maternity benefit.

- The duration of unemployment allowance is dependent on the duration of unemployment insurance benefit.

- On behalf of the recipients of unemployment benefits and family benefits (childcare benefits, parental benefits) social insurance contributions are paid by the government (either for health care or pensions or both).

- An income tax allowance for self-employment income from agriculture also applies to the tax base for self-employed social insurance contributions.

- Employee and self-employed social insurance contributions are deductible from the income tax base. Employee SIC both from the tax base for withholding and final income tax, self-employed SIC only from the latter.

- The subsistence benefit and the needs-based family benefit depend on income net of employee SIC and withholding income tax. Most of benefits are also included in the means-test.

- The upper limit of annual refund to low-paid employees is a final liability of income tax and although the benefit itself is not taxable, it is considered included in the means-test for the subsistence benefit and needs-based family benefit.

- COVID-19 policies are not included in the baseline and they only work when labour market transitions (TransLMA) are switched on (more information could be found in the sub-section 2.5.14).

Table 2.4. EUROMOD spine: order of simulation [2021-2024]

Policy	2021	2022	2023	2024	Description
SetDefault_ee	on	on	on	on	DEF: default values for variables
Uprate_ee	on	on	on	on	DEF: uprating factors
ConstDef_ee	on	on	on	on	DEF: constants
ILSDef_ee	on	on	on	on	DEF: standard income concepts
ILSudbdef_ee	on	on	on	on	DEF: standard income concepts (UDB related)
ILDef_ee	on	on	on	on	DEF: specific income concepts
random_ee	on	n/a	n/a	n/a	DEF: Random assignment for covid measure
random_pens_ee	off	n/a	n/a	n/a	DEF: Random assignment for pension contribution suspension
Random_pensIT_ee	off	off	off	off	DEF: Random assignment of income tax for III pillar pensions and allocation
TransLMA_ee	off	n/a	n/a	n/a	DEF: Modelling labour market transitions
PensCont_ee	off	n/a	n/a	n/a	DEF: Suspending pension payment: random allocation
TUDef_ee	on	on	on	on	DEF: assessment units
allocate_ee	on	on	on	on	DEF: reallocate benefits within households
BTA_ee	switch	switch	switch	switch	Benefit Take-up Adjustments: ON=non take-up (default); OFF=full take up
yem_ee	switch	switch	switch	switch	DEF: minimum wage
neg_ee	on	on	on	on	DEF: recode negative incomes (e.g. self-employment income) to zero
yemcomp_ee	on	n/a	n/a	n/a	BEN: Wage compensation scheme COVID-19
tscer_ee	on	on	on	on	SIC: employer social insurance contributions
tscee_ee	on	on	on	on	SIC: employee social insurance contributions
tintaag_ee	on	on	on	on	TAX: allowance for self-employment income from agriculture (applicable to income tax and self-employed SIC)
tscse_ee	on	on	on	on	SIC: self-employed social insurance contributions
bmapr_ee	switch	switch	switch	switch	BEN: maternity benefit (*sünnitushüvitis*)
bmactmh_ee	off	off	off	off	BEN: Mother's parental benefit (*ema vanemahüvitis*) (only in REG)
bmact_ee	switch	switch	switch	switch	BEN: parental benefit (*vanemahüvitis*)
bchba_ee	on	on	on	on	BEN: childbirth allowance (*sünnitoetus*)
bch00_ee	on	on	on	on	BEN: child allowance (*lapsetoetus*)
bchlg_ee*	n/a	n/a	n/a	n/a	BEN: allowance for families with 3+ children (*kolme- ja enamalapselise pere toetus*)
bched_ee**	n/a	n/a	n/a	n/a	BEN: school allowance (*koolitoetus*)
bcc00_ee	on	on	on	on	BEN: childcare allowance (*lapsehooldustasu*)
bcclg_ee	on	on	on	on	BEN: parental allowance for families with 7+ children (*seitsme- ja enamalapselise pere vanema toetus*)
bunct_ee	on	on	on	on	BEN: unemployment insurance benefit (*töötuskindlustushüvitis*)

Policy	2021	2022	2023	2024	Description
bunnc_ee	on	on	on	on	BEN: unemployment assistance benefit (*töötu abiraha*)
tscct_ee	on	on	on	on	SIC: credited social insurance contributions
tinwh_ee	on	on	on	on	TAX: withholding income tax (*jooksvalt kinnipeetud tulumaks*, current liability)
tin_ee	on	on	on	on	TAX: income tax (*deklaratsioonijärgne ehk lõplik maksukohustus*, final liability)
tinrf_ee***	n/a	n/a	n/a	n/a	TAX: refund to low-paid employees (*madalapalgalistele suunatud tagasimakse*)
bsa00_ee	on	on	on	on	BEN: subsistence benefit (incl. housing component) (*toimetulekutoetus*)
bsach_ee	n/a	n/a	n/a	n/a	BEN: needs-based family benefit (*vajaduspõhine peretoetus*)
bsape_ee	on	on	on	n/a	BEN: pensioner's living alone allowance (*üksi elava pensionäri toetus*)
bsaxp_ee****	n/a	on	n/a	n/a	BEN: one-time price relief support (*hinnatõusu leevendamise toetus*)
tco_ee	off	off	off	off	TAX: Commodities

* Simulated for 2005-2007 in the model (was abolished from 1st July 2007).
** Simulated for 2005-2008 in the model (was abolished from 2009).
*** Simulated for 2016 in the model (was abolished in 2017)
**** Simulated for 2022 in the model (was abolished in 2023)

2.4   Policy extensions

There are five extensions defined in the Estonian model:[4]

- Uprating by Average Adjustment (UAA) – to choose between uprating (non-simulated) public pension variables according to changes in average amounts (extension *on*) or statutory indexation (extension *off*, the default).
- Benefit Take-up Adjustments (BTA) - allowing the user to apply non-take-up corrections. The extension is used for the simulation of social assistance (bsa00_ee). The default for the baseline is on until 2018 whereas is it off from 2019 onward (where it is replaced by the BCA). 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.
- Full Year Adjustments (FYA) – to choose between modelling policies as of 30th June (extension *off*, the default) and modelling annual policies (extension *on*), which takes into account within-year policy changes.
- Parental Benefits Extension (PBE) – to choose between observed (extension *off*) and simulated (extension *on*) values of maternity benefit and parental benefit.
- Minimum wage adjustment (MWA) – minimum wage adjustments are applied if the extension is on (default - extension is off) (see also section 2.4.1).

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[4] Policy switches are denoted with 'switch' in the policy spine (for a given policy year), while their default values (*on* or *off*) are set in a separate dialogue box in the model.

- Benefit Calibration Adjustments (BCA) **-** allowing the user to calibrate the receipt of benefits to match the simulated total number of beneficiaries of a benefit to real expenditure from external statistics. The extension is implemented for the simulation of the social assistance benefit (bsa00_ee). The default for the baseline is on. When the extension is on, a subset of eligible of observations is selected randomly as beneficiaries so that the real number of beneficiaries 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.

2.4.1 Minimum wage

- *Brief description*

Monthly and hourly minimum wage is set by annual bipartite agreements between the Estonian Trade Union Confederation and the Estonian Employers' Confederation, and then brought into effect by a government decree. Minimum wage applies nationwide to all employees. Some sectors may have additional negotiations between representatives of employees and employers to agree on a more favourable wage policy affecting particular occupations, but these are not simulated.

- *Definitions and eligibility conditions*

The unit of analysis is individual. If the actual wage is less than minimum wage, then wage is replaced with minimum hourly wage times actual working hours.

- *Amount*

Amount is a flat-rate sum per month.

Table 2.5. Minimum wage, EUR

	2021	2022	2023	2024
Per month	584	654	725	820
Per hour	3.48	3.86	4.30	4.86

- *EUROMOD modelling*

Monthly income from employment (taking into account the number of months in work) is set equal to minimum wage (proportional to hours worked) if the income from employment is less than minimum wage, but positive, and if working hours are less than or equal to 40 hours per week. We do not apply the minimum wage correction when a person earns more than a monthly minimum wage, but its hourly wage is still less than a minimum wage.

Minimum wage adjustments are not applied in the baseline simulations.

2.5 Benefits

2.5.1 Unemployment insurance benefit (bunct_ee)

- *Brief description*

Unemployment insurance (UI) benefit (*töötuskindlustushüvitis*) is a benefit for the unemployed and it depends on previous earnings and contributions to the insurance scheme.

- *Definitions and eligibility conditions*

The unit of analysis is an individual person. To be considered eligible, a person must be involuntarily unemployed, aged from 16 to the retirement age and not receiving old age pension (which is possible in the case of early retirement), have worked (including being member of a management board again since 2018) and made contributions for at least 12 months during the previous 36 months (prior to registering as unemployed), registered as unemployed and looking actively for a job. UI benefit is not paid to those who leave their job or service voluntarily or who lose their job because they do not perform as agreed, lost confidence of their employer or behaved in an indecent manner. These persons may still receive unemployment allowances. The UI benefit may be stopped if the person refuses an offer of suitable work or does not show up at the Public Employment Service (PES) at a fixed date. As persons registered as self-employed, aged under 16 or receiving old-age pension or those older than the legal pension age are not allowed to be registered as unemployed in PES, they are also not eligible for unemployment insurance benefits or unemployment allowances.

- *Benefit amount*

Since August 2020, the replacement rate is 60% (previously 50%) of the previous gross earnings during the first 100 calendar days of unemployment and 40% afterwards. The gross earnings refer to the average daily gross earnings of the person in the previous calendar year, subject to an upper limit of three times average taxable wages in the previous calendar year. The daily amount received is calculated on the basis of the wages the person has received during the last twelve months of the insurance period. Of those twelve months, only the first nine are taken into account, while the last three months are disregarded. Since 1st July 2009, there is a lower limit on the benefit amount, equal to 50% of the minimum wage of the previous year. UI benefits are subject to income tax and this is withheld when the benefits are paid out by the UI fund.

To discourage entry into unemployment, UI system involves a waiting period of 7 days before the benefit payment starts. The duration of the UI benefit ranges from 180 days up to 300 days depending on the length of contribution payments and, starting from 30 June 2023, also on the labour market situation compared to previous years. To assess the labour market situation, the EUIF records the number of registered unemployed each month and compares it with the average number of registered unemployed over the last 10 and 3 years. If the labour market situation is better compared to previous years, the benefit duration is not extended (option I). If the labour market situation is normal, the 210- and 300-day benefits are extended by 60 days (option II). If the labour market situation is worse, the 180-day benefits are extended by 60 days and the 210- and 300-day benefits are extended by 120 days (Option II). Before 30 June 2023, the duration of UI benefit was between 180 days and 360 days and solely dependent on the length of the contribution period.

After expiry of the insurance benefit, the unemployed can apply for unemployment allowances for the remaining days and for social assistance thereafter.

Since September 2020, it is possible to take on temporary work while being registered as unemployed (up to 8 days per month and up to 12 calendar months in a 24-month period) and receive unemployment insurance benefit at the same time. Temporary working is not considered when calculating the amount of unemployment insurance benefit or eligibility.

- *EUROMOD modelling*

Effectively, this benefit is only partly simulated using the information about actual receipt. But rather than simply using the observed receipt as part of the eligibility criteria, all eligibility rules in full detail are covered. However, as not all required information (e.g., work history) is available several assumptions are made and some rules are considered automatically fulfilled for those in receipt. This approach is chosen so that the benefit can be also modelled for those currently *employed* if needed (e.g., to simulate their entitlement if they become unemployed, e.g for replacement rates calculations).[5]

Simulated unemployment duration (lunmy_s) is set equal to the maximum of observed unemployment duration (lunmy) and observed benefit receipt (bunctmy). It is effectively assumed that unemployment spells start in the reference year. Simulated unemployment duration is also used for unemployment allowance calculations. With regards to the minimum qualifying contribution period, those currently unemployed and in receipt are assumed to satisfy it, while those currently unemployed and not in receipt are assumed to have not passed it.

At this point, working aged people who are unemployed (lunmy_s > 0), have sufficient contribution history, do not receive old age pension and are not self-employed (i.e., have employment earnings or no self-employment status) are considered eligible. It is assumed that all of them are involuntary unemployed and capable and available for work (there is a variable in the SILC data identifying the latter but only filled in for those currently unemployed).

Benefit duration (bunctmy_s) is determined according to the rules above, using modelled contribution history, while also controlling for the unemployment duration (lunmy_s). The extension of the benefit duration based on the labour market situation relative to previous years is simulated by using parameter reflective of the labour market situation to determine the length of the benefit duration. The parameter reflects the labour market situation relative to previous years: a) Option I: A favourable labour market situation and no extension; b) Option II: A normal labour market situation and extension for two groups with longer work history; c) Option III: An adverse labour market and an extension for all groups. This parameter is determined based on the annual average prevalence of each option.

Benefit entitlement is calculated based on previous earnings (or alternatively on imputed wage) and benefit duration, subject to the lower and upper thresholds. For those currently unemployed and in receipt, previous earnings are used which have been imputed by reversing unemployment insurance benefit rules. For those currently unemployed and not in receipt, the entitlement is set to zero. Finally, benefit amount is adjusted with the number of months in receipt (bunctmy_s). Temporary working is not considered in EUROMOD as there is no information in the input data on this at the moment. In addition, the conditions regarding temporary work are set on a monthly basis.

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[5] Employment changes are modelled in combination with a specific add-on tool and are not part of the baseline simulations.

Table 2.6. Characteristics of the unemployment insurance benefit, 2005-2024

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Eligibility	Contribution period (min)	12 months during last 24 months																			
	Other conditions	Involuntarily unemployed, registered as unemployed (excludes self-employed, aged under 16 or in the retirement age, those receiving old-age pension), looking actively for a job, willing to accept job suitable work offers																			
	Eligibility of self-employed	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Payment	Contribution base	Person's average earnings in the last 12 months																			
	Basic amount	50% of the base amount during first 100 days, 40% during the remaining period																			
	Additional amount	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Floor	-		UA benefit																	
	Ceiling [a]	562 EEK	630 EEK	748 EEK	885 EEK	1,015 EEK	894 EEK	60.46 EUR	63.99 EUR	68.07 EUR	75.87 EUR	77.34 EUR	84.12 EUR	86.94 EUR	93.30 EUR	99.75 EUR	106.86 EUR	112.17 EUR	119.49 EUR	130.92 EUR	147.03 EUR
Duration		Required contribution period:																			
	180 days	Less than 5 years				Less than 55 months										Less than 60 months					180 days [c]
	270 days	5-10 years				56-110 month										60-120 months					210 days
	360 days	10 or more years				110 or more months										120 or more months					300 days
	Max (days)	180	180	270	270	270	360	360	360	360	360	360	360	360	360	360	360	360	360	360	420
Subject to	Taxes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SIC [b]	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Notes: [a] daily rate, 3 times the average of the taxable earnings in previous year; [b] only credited (health) contributions applied; [c] Extended up to 120 days . Source: Unemployment Insurance Fund, various legal acts.

2.5.2 Unemployment allowance (bunnc_ee)

- *Brief description*

Unemployment allowance (*töötutoetus*) is paid to those people who do not qualify for unemployment insurance benefit or the period of UI benefit has ended. Since 2010, UI benefit could be received for 360 days. UA benefits can be received until the end of the remaining period of 270 days. In November 2021, a provision in legislation would extend the span of unemployment allowance by 60 days if the unemployment rate rose over 8.5% two months before the unemployment allowance was set to expire and the benefit was due to conclude between 1 September 2021 and 28 February 2022.

- *Definitions and eligibility conditions*

The unit of analysis is an individual person. To be considered eligible, a person must be unemployed, aged from 16 to the retirement age and not receiving old age pension, must have been employed or engaged in activity equivalent to working for at least 180 days during the 12 months prior to filing an application with an employment office. Benefit is suspended for 10 days if the person refuses an offer of suitable work or does not show up at the Public Employment Service (PES) at a fixed date for the first time. Benefit is stopped if the person refuses an offer of suitable work or does not show up at the PES at a fixed date for the second time. Unemployment allowance is formally income tested: only the unemployed whose income is below the unemployment allowance are entitled to the benefit. Since September 2020, it is possible to take on temporary work while being registered as unemployed (up to 8 days per month and up to 12 calendar months in a 24-month period) and receive unemployment allowance at the same time.

- *Benefit amount*

Flat rate of 4.41 EUR per day in 2016, 4.81 EUR per day in 2017, 5.31 EUR per day in 2018, 5.65 EUR per day in 2019, 6.1 EUR in 2020, 9.42 EUR in 2021 and in 2022, 10.55 in 2023 and 11.70 in 2024. It is non-taxable.

- *EUROMOD modelling*

Similar to unemployment insurance benefit, unemployment allowance is effectively only partly simulated using the information about actual receipt but this is done indirectly by assuming those in receipt fulfil certain eligibility criteria. The continuation of the duration of UA benefit in case of high unemployment rate was not simulated, since the conditions needed did not materialize.

Work history for simulating the eligibility of unemployment allowance is modelled in complete analogy to the unemployment insurance benefit. The eligibility rule differs as self-employed are not excluded from the UA benefit. Additionally, there is also an income condition – income from other sources (market income, maternity benefit, parental allowance for families with 7+ children) must be below the UA benefit amount. As it is not known if and how this income test is followed in practice, it is not applied to those observed in receipt in the baseline simulations. Temporary working is also not simulated in EUROMOD (see previous sub-section also).

Benefit amount is simply based on a daily flat rate. However, the number of months in receipt is calculated as the difference between maximum duration (i.e., nine months) less simulated unemployment insurance benefit duration, taking overall unemployment duration also into account. Finally, benefit amount is adjusted with the number of months in receipt (bunncmy_s).

Table 2.7. Characteristics of the unemployment assistance, 2005-2024

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Eligibility	Contribution period (min) Other conditions	180 days during last 12 months Registered as unemployed (excludes self-employed, aged under 16 or in the retirement age, those receiving old-age pension), looking actively for a job, willing to accept job suitable work offers, satisfies an income means-test																				
	Eligibility of self-employed	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Payment	Contribution base	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Basic amount	14.3 EEK	14.3 EEK	32.9 EEK	32.9 EEK	32.9 EEK	32.9 EEK	2.11 EUR	2.11 EUR	3.27 EUR	3.62 EUR	4.01 EUR	4.41 EUR	4.86 EUR	5.31 EUR	5.65 EUR	6.1 EUR	9.42 EUR	9.42 EUR	10.55 EUR	11.70 EUR
	Additional amount	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Floor	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Ceiling	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Duration	Standard (days)	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270
	Special cases																				
Subject to	Taxes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	SIC [a]	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Notes: [a] only credited (health) contributions applied. Source: Unemployment Insurance Fund, various legal acts.

2.5.3 Maternity benefit (bmapr_ee)

- *Brief description*

Maternity benefit (until March 2022 *sünnitushüvitis,* as of April 2022 *ema vanemahüvitis*) is one of the benefits for temporary incapacity for work. Until March 2022, it was regulated by the Health Insurance Act *(Ravikindlustuse seadus)*, as of April 2022, it is regulated by the Family Benefits Act (*Perehüvitiste seadus*).

- *Definitions and eligibility conditions*

Maternity benefit is paid for insured persons in the event of pregnancy and maternity leave *(rasedus- ja sünnituspuhkus)*. An insured person is an employee or a civil servant. In addition, members of management boards (effective since January 1, 2016), persons who have entered into contract for services, authorisation agreement or other contract under the law of obligations (effective since January 1, 2016), self-employed persons, sworn translators and notaries are eligible for the benefit without the maternity leave on the condition that at least the minimum social tax base has been paid for these persons. In addition, persons who are insured through their self-employed spouse are eligible for maternity benefit without the maternity leave on the condition that the minimal social tax base has been paid for them. As of April 2022, unemployed persons are also eligible for maternity benefit starting from birth, however they aren't able to apply for maternity leave. Additionally, a mother is entitled to maternity benefit for a minimum of 30 days in the event passing of the child before reaching 70 days of age or in case of stillbirth.

- *Benefit amount and duration*

As of April 2022, a pregnant woman has the right to receive maternity benefit for a maximum of 100 consecutive days – 70 days before the estimated date of delivery and 30 days after the delivery. If the person commences their maternity benefit 31-69 days before the estimated date of delivery, then the unused maternity benefit days will be transferred under the shared parental benefit. If the person chooses to go on maternity leave less than 31 calendar days before the estimated date of delivery, then the unused maternity leave days will not be carried forward to shared parental benefit. Previous to April 2022, the benefit duration was 140 calendar days if the pregnancy and maternity leave of the woman commenced at least 30 calendar days before the estimated date of delivery. (Before July 2009, this was extended to 154 calendar days in the case of a multiple birth or a delivery with complications.) The amount of the maternity benefit is calculated on the basis of 100% of the person's income taxed with social tax in the 12 calendar months preceding the pregnancy (9 months). The reference period is based up on the estimated delivery date in the case of the mother being employed, or the actual date of birth given the mother is unemployed.

- *Subject to taxes/SIC*

The benefit is subject to income tax.

- *EUROMOD modelling*

We consider insured people that have earned any employment income during the year to be those in employment and that unemployed people have not earned any employment income. We assume that the maternity leave (for those eligible) commences 30 calendar days before the birth and lasts maximum length possible. The month of birth is assumed to be equal to the middle month of the quarter of birth reported in SILC. If the month of birth is unavailable, we assume that the child is born in the second month of the year (February). For children aged 1 year, the duration in the current policy year is computed as the difference between the maximum duration and the

simulated benefit duration in the birth year (when the child was aged 0). The duration of the benefit will not be calculated for children aged 1 year if the parent was unemployed, since the extent of the benefit is 30 days. The formulas for calculating benefit duration in the model are provided in Table 2.11. The benefit amount (in the current policy year) is calculated pro rata, i.e., adjusted with the simulated duration.

Simulated maternity benefit is subject to further validation and hence not used yet in the baseline scenarios.

2.5.4 Parental benefit (bmact_ee)

- *Brief description*

Parental benefit *(vanemahüvitis)* is a replacement income for the parents of young children, and it depends on the person's previous earnings. As of April 2022, the measure was renamed as shared parental benefit *(jagatav vanemahüviti*s*).*

- *Definitions and eligibility conditions*

Parent, adoptive parent, parent's legal spouse, parent's registered cohabitant partner, child's legal guardian and the parent of a foster child who raises their child(ren) in Estonia are eligible for the parental benefit.

Entitlement to parental benefit starts right after the maternity benefit is exhausted when the mother had the right for maternity leave or, in case the mother was not eligible for maternity leave, with the birth of the child. From July 2020 to March 2022, the mother who was not eligible for maternity benefit, was entitled to 30 days of parental benefit in case of stillbirth. In the same occasion, the father was entitled to 30 days of paternal benefit without the paternity leave. Since April 2022, in case of stillbirth or the passing of the child before reaching 70 days of age, mothers are entitled to maternity benefit and fathers, or since 2024 in case of a same-sex couple, the other parent, are entitled to paternity benefit. In the case of adoption, the entitlement for the benefit starts after the end of the certificate for adoption leave *(lapsendamisleht)*, i.e., 70 days after the court has decided on the adoption. As of April 2022, both parents are eligible to apply for shared parental benefit once the child is 31 days old. Prior to, the parent who was on paternity leave was able to apply for the benefit when the infant turned 70 days..From July 2020, a father, or since 2024 in case of a same-sex couple, the other parent, is eligible for 30 days of paternity leave to be taken 30 days prior to the due birth date or up until the child reaches three years of age.

- *Benefit amount and duration*

Since April 2022, the duration of shared parental benefit is 475 days. Prior to, parental benefit was paid for 435 calendar days. In instances where the mother was not eligible for maternity benefit or the person applying for the parental benefit is the child's adopter, legal guardian or foster parent, the benefit is disbursed for 515 days. Before April 2022, it was paid until the child was 18 months old. The shared parental benefit allows both parents to receive the benefit simultaneously for 60 days. When using the benefit at the same time, the duration will be reduced by a double.

Since 2019, the period for calculating the parental benefit is based on the income of the 12 calendar months preceding the pregnancy (9 months). Before, the size of the benefit was calculated according to the applicant's average monthly gross income taxed with social tax (i.e., earnings) in the previous calendar year. The replacement income rate is generally 100%. Persons who did not receive any earnings (e.g., non-working students) are paid the parental benefit at the parental benefit rate, which equals the national minimum wage of the previous calendar year. Persons whose average monthly income in the previous year was less than or equal to the

minimum wages are paid the parental benefit at the rate of the minimum wage of the year when applying for the benefit (described in Section 2.4.1). Since May 2021, the number of days a person was   unemployed will be subtracted from the period the calculation is based on. This will be paid retroactively for children born between 1st of January 2021 and 31st of December 2023 until the end of 2026. For those whose children are born with the difference of less than three years and whose average income per month is smaller than the income, which was the basis for the benefit of the older child, the amount of the parental benefit is calculated for the new-born based on the previous income (in force since July 2020). Since September 2019, the maximum amount of the monthly benefit is three times the average monthly income taxed with social tax for the year preceding the calendar year prior the parental benefit arises (before it was three times the average monthly income taxed with social tax in the calendar year before). See Table 2.8, Table 2.9 and Table 2.10 for the benefit rates in 2005-2024.

In case the person receiving parental benefit is receiving income that exceeds 50% of the maximum parental benefit, the benefit is reduced by €1 per every €2 received over the limit, but the parent shall still receive at least the amount of the parental benefit rate (effective from March 1, 2018. Before the latest amendments to the legislation, the cut-off point was the minimum wage of the month and parents were guaranteed at least 50% of his or her parental benefit and never less than the lower limit of parental benefit).

- *Subject to taxes/SIC*

The parental benefit is subject to income tax.

- *EUROMOD modelling*

We assume that the parental leave commences immediately after the maternity leave if eligible for the latter and immediately after the birth if not eligible for the maternity leave and lasts maximum length possible. The month of birth is assumed to be equal to the middle month of the quarter of birth reported in SILC. If the month of birth is unavailable, we assume that the child is born in the second month of the year (February). For children aged 1 year, the duration in the current policy year is computed as the difference between the maximum duration and the simulated benefit duration in the birth year (when the child was aged 0). The formulas for calculating benefit duration in the model are provided in Table 2.11. The benefit amount (in the current policy year) is calculated pro rata, i.e., adjusted with the simulated duration.

Simulated parental benefit is subject to further validation and hence not used yet in the baseline scenarios. Paternity leave is not simulated in EUROMOD as there is no information in the input data who or when are using it. The sharing aspect of the new shared parental benefit will also not be simulated due to the same reason. In addition, it will not change incomes as the amount paid during the leave is equal to the wage.

Table 2.8. Overview of parental benefit, in 2005-2010, monthly rates in EEK

	2005	2006	2007	2008	2009	2010
Maximum duration for a parent						
… eligible for maternity benefit (days since the start of maternity benefit)	365	455	455	575	575	
… eligible for maternity benefit (days)						435
… not eligible for maternity benefit (months)	11	14	14	18	18	18
Minimum rate for						

… a non-working parent (parental benefit rate) (EEK)	2,200	2,480	2,690	3,600	4,350	4,350
… a working parent (minimum wage) (EEK)	2,690	3,000	3,600	4,350	4,350	4,350
Maximum parental benefit (EEK)	17,472	19,191	21,624	25,209	30,747	35,316

Source: Ministry of Social Affairs; Estonian National Social Insurance Board.

Table 2.9. Overview of parental benefit, in 2011-2018, monthly rates in EUR

	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Maximum duration for a parent								
… eligible for maternity benefit (days)	435	435	435	435	435	435	435	435
… not eligible for maternity benefit (months)	18	18	18	18	18	18	18	18
Minimum rate for								
… a non-working parent (parental benefit rate) (EUR)	€278.02	€278.02	€290	€320	€355	€390	€430	€470
… a working parent (minimum wage) (EUR)	€278.02	€290	€320	€355	€390	€430	€470	€500
Maximum parental benefit (EUR)	€2,157	€2,143	€2,234	€2,378	€2,549	€2,724	€2,907	€3,090

Source: Ministry of Social Affairs; Estonian National Social Insurance Board.

Table 2.10. Overview of parental benefit, in 2019-2024, monthly rates in EUR

	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Maximum duration for a parent						
… eligible for maternity benefit (days)	435	435	435	475[a]	475	475
… not eligible for maternity benefit (months)	18	18	18			
… not eligible for maternity benefit (days)				515[b]	515	515
Minimum rate for						
… a non-working parent (parental benefit rate)	€500	€540	€584	€584	€654	€725
… a working parent (minimum wage)	€540	€584	€584	€654	€725	€820
Maximum parental benefit	€3,320	€3,548	€3,822	€4,043	€4,291	€4,734

Notes: [a] Until April 2022, the benefit duration for a parent eligible for maternity benefit was 435 [b] Up to April 2022, the benefit duration was 18 months for a parent not eligible for maternity benefit. Source: Ministry of Social Affairs; Estonian National Social Insurance Board.

Table 2.11. Simulated duration of maternity benefit (MB) and parental benefit (PB) by the age of child and reference year

Age of the child (in the policy year)	Reference year*	Parent is employed	Benefit duration
0 or 1	Birth year	Yes	$MB_0 = \min(MB_{max}, age_0 + MB_{min})$
0	Birth year	No	$MB_0 = MB_{maxUn}$
1	Birth year + 1	Yes	$MB_1 = MB_{max} - MB_0$
0 or 1	Birth year	Yes	$PB_0 = \min(PB_{max}, age_0 + MB_{min}) - MB_0$
0 or 1	Birth year	No	$PB_0 = \min(PB_{maxUn}, age_0)$
1	Birth year + 1	Yes	$PB_1 = \min(PB_{max} - MB_0 - MB_1 - PB_0, 365)$
1	Birth year + 1	No	$PB_1 = \min(PB_{maxUn} - age_0, 365)$

Notes: * simulated policy year is the birth year for children aged 0 and the year after the birth for children aged 1; age_0 = age of the child at the end of birth year (in days); MB_{max} = maximum duration of maternity benefit (since the start of maternity leave); MBmaxUn = maximum duration of maternity benefit for those unemployed (since birth); MB_{min} = minimum duration of maternity benefit (before the birth); PB_{max} = maximum duration of parental benefit for a parent eligible for maternity benefit (since the start of maternity leave); PB_{maxUn}= maximum duration of parental benefit for an unemployed parent (since the end of maternity benefit).

2.5.5 Childbirth allowance (bchba_ee)

- *Brief description*

One of the parents has the right to receive childbirth allowance (*sünnitoetus*). An adoptive parent, guardian or caregiver has the right to receive childbirth allowance, if childbirth allowance has not been paid for the same child earlier. Since June 2021, a parent is entitled to childbirth allowance also in the event of stillbirth.

- *Benefit amount*

The benefit is paid in the case of childbirth. Since 2011 the benefit rate is 320 EUR. In case of the birth of triplets or higher order multiples, the childbirth allowance is 1,000 EUR per child.

- *EUROMOD modelling*

There is no information about the status of being an adoptive parent, guardian or caregiver in the underlying datasets. The top-up for families of triplets and higher order multiples is not simulated. The allowance a parent is entitled to in the event of stillbirth is also not simulated.

Table 2.12. Overview of state family benefits, 2021-2024

Benefit	Frequency	Unit	Basic formula and changes in 2021-2024
Childbirth allowance	Lump sum	Family	320 EUR. In case of the birth of triplets or higher order multiples, the allowance is 1,000 EUR per child.
Child allowance	Monthly	Per child	A flat rate benefit. Between 2019 and 2022 the amount for the first two children is 60 EUR per month; for third and any consequent child 100 EUR per month. In 2023, it was increased to 80 EUR per month for the first two children, the amount for third and any consequent child remained the same.
Allowance for multiple birth of three or more children	Monthly	Family	1,000 EUR paid to one parent until the children reach 18 months of age. Effective from March 1, 2018.
Childcare allowance	Monthly	Per child	Under 3 years old: 38.36 EUR since 2017 3-8 years old: 19.18 EUR since 2017. Since September 2019, childcare allowance is gradually abolishing.
Allowance for families with many children (since 1 July 2017)	Monthly	Family	From July 2017: a flat rate benefit of 300 EUR monthly for families with 3-6 children and 400 EUR for families with 7 or more children for whom one parent receives child allowance. From January 2023: 650 EUR for families with 3-6 children and 850 EUR for families with 7 or more children. From January 2024: 450 EUR for families with 3-6 children and 650 EUR for families with 7 or more children.
Single parent's child allowance	Monthly	Per child	19.18 EUR. (2 x child care allowance rate which is 9.59 EUR), since January 2023, this amount was increased to 80 EUR.
Foster care allowance	Monthly	Per child	240 EUR. Since January 1, 2018 the allowance is only paid for child in legal guardianship, children in foster families do not receive the benefit since.
Conscript's child allowance	Monthly	Per child	300 EUR per month from 1 January 2019 until July 2021.. From July 2021 it increased to 900 EUR per month.
Adoption allowance	Lump sum	Family	320 EUR

2.5.6   Child allowance (bch00_ee)

- *Brief description*

Child allowance is a monthly universal non-means-tested non-taxable benefit paid to families with children below an age limit.

- *Definitions, eligibility conditions and income test*

The unit of analysis for all child and childcare benefits is the family consisting of the head, spouse or cohabitant partner and children under 16 years or under 19 years if studying at basic, upper secondary or vocational school. From June 2021, once an eligible child reaches the age of 19, the allowance will be paid until the end of the current academic year or in-service training course or until the student is removed from the list of the school or in-service training course. As of 2023, all children under 19 are considered eligible. A child who has turned 19 years old and is studying in basic school, high school, vocational education or training, or included in the list of stationary further education courses managed by the Ministry of Social Affairs, and has not completed

secondary education, is considered eligible until the end of the current academic year or until the completion of the further education course or removal from the list of the student's school or further education course.

There is no income test. Eligible children living in the household, but without parents (i.e., so-called "loose children"), are also counted as dependent children.

- *Benefit amount*

The benefit is paid monthly to one of the parents, based on the number of eligible children. In 2016 the amount for the first two children was 50 EUR per month, the amount for third and any subsequent child was 100 EUR, and it remained the same for 2017. From the beginning of 2018, the child allowance for the first and second child was raised to 55 EUR per month, the amount for third and any subsequent child remained unchanged, i.e., 100 EUR. From 2019, the child allowance for the first and second child changed to 60 EUR per month; the allowance for the third and any subsequent child remained unchanged 100 EUR per month. In 2020 and 2021, the amount of the child allowance remained unchanged (60 EUR and 100 EUR). In 2023, child allowance for first and second child increased to 80 EUR per month and for the third and every subsequent child, the amount remained the same (100 EUR). In 2024, child allowance remained unchanged.

- *EUROMOD modelling*

Note that we have monthly family benefits, while the age variable is recorded as of at the end of income year, therefore, we do not know how many months exactly children are eligible for. We have chosen to oversimulate the benefit by assuming eligibility for the whole year when reaching the age limit, i.e., also including the age limits like 16 and 19 in the case of child allowance, instead of undersimulating (assuming no eligibility for the year when reaching the age limit) as this results in a better match with corresponding age profiles and the aggregate results from the register data. In 2023, the age eligibility criteria for the benefit underwent modifications. As a result, our approach to simulating the benefit involves including all children under the age of 19 as recipients. Additionally, we also consider 19-year-olds who meet the specified educational requirement as eligible beneficiaries.

Due to rare occurrence in the survey data and very low statistical reliability, specific provisions for triplets and multiple births of higher orders – allowance for multiple birth of three or more children and the top-up of childbirth allowance – are not simulated.

2.5.7   Allowance for families with 3 or more children (bchlg_ee)

- *Brief description*

Allowance for families with 3 or more children (*kolme- ja enamalapselise pere toetus*) was a quarterly universal non-means-tested non-taxable benefit paid to families where there were three or more children below an age limit. This was abolished as a separate instrument on 1st July 2007, when it was effectively incorporated in the main child allowance. Further details can be found in earlier country reports.

2.5.8   School allowance (bched_ee)

- *Brief description*

School allowance (*koolitoetus*) was an annual universal non-means-tested non-taxable benefit paid to families with children in the compulsory schooling age to help them with the start of the

school year. It was paid out in August, in general. It was abolished from 1st January 2009. Further details can be found in earlier country reports.

2.5.9   Childcare allowance (bcc00_ee)

- *Brief description*

Childcare allowance (*lapsehooldustasu*) is a monthly universal non-means-tested non-taxable benefit paid to families with young children. The childcare allowance is gradually abolishing and as of September 2019, it is no longer granted. However, the allowance will be paid to those whose children are born before the 1st of September and to all who have been granted the allowance earlier (until 31.08.2024 the latest).

- *Definitions and eligibility conditions*

The unit of analysis is the same as for child allowance (see Section 2.5.6). The benefit is paid to one of the parents based on the number of children up to 3 years old and aged 3-8 years. A parent is not eligible if she (or he) is receiving the parental benefit for any of the eligible children. There was an additional element for every child up to one year of age before 2017.

- *Benefit amount*

The benefit is paid monthly to one of the parents. Before 2017, the amount was 1/2 of the Childcare Allowance Rate (CCR, equal to 76.7 EUR in 2011-2016) for every child up to 3 years old, 1/4 of the CCR for each eligible child from 3 to 8 years of age. Since 2017, the benefit rate was unlinked from the CCR and explicitly set at 38.36 EUR and 19.18 EUR per child in the two cases, respectively. Additionally, 6.43 EUR for every child up to one year of age if the parent is not eligible for parental benefits. Since 2006 the additional benefit became effectively non-existent as parental benefit was extended to 14 months and, therefore, is not simulated from 2006 onwards in EUROMOD. The supplement was officially abolished in 2017.

- *EUROMOD modelling*

The benefit is allocated to the same person in the household who is receiving the maternity benefit to avoid that social tax paid by the state on behalf of the person in the maternity leave is counted twice. If there is no one receiving maternity benefit it is assigned to the head of unit. As of September 2019, the childcare allowance is gradually abolishing, but the allowance will be paid to all who have been granted the allowance earlier (until 31.08.2024 the latest). In order to differentiate between those who continue to receive benefit and those whose benefit ends, children are differentiated according to their age.

2.5.10   Parent's allowance for families with many children (bcclg_ee)

- *Brief description*

The allowance (*seitsme- ja enamalapselise pere vanema toetus*) is targeted to families with a very large number of children. It is a monthly universal non-means-tested and non-taxable benefit. From July 2017 this became allowance for families with many children (*lasterikka pere toetus*) with two tiers: 300 EUR per month for families with three to six children and 400 EUR per month for families with at least seven children. The amount of the benefit was increased in 2023 to 650 EUR per month for families with three to six children and 850 EUR per month for families with seven or more children. In 2024, the amounts of the benefit were lowered to 450 EUR per month for families three to six children and to 650 EUR per month for families with seven or more children.

- *Definitions and eligibility conditions*

The unit of analysis is the same as for child allowance. There must be at least 3 eligible children in the family since July 2017. In 2023, a smooth exit scheme for this benefit was introduced which would entail a change in its eligibility conditions. Initially, the benefit is paid in full for three children until the eldest child reaches the age of 19. Subsequently, a gradual reduction in the benefit amount occurs. For instance, if a family has two children under the age of 19 who are eligible for child benefits, the size of the benefit for large families is adjusted to 2/3 of the total amount. In the case of a family with only one child under the age of 19 receiving child benefits, the benefit for large families is set at 1/3. For families with triplets or higher-order multiples, the payment continues at a reduced rate of 1/3 for a period of three years after they turn 19. The smooth exit plan applies to families who are eligible for the benefit as of 1 January 2023. In June 2023, an amendment to the Family Benefit Act was accepted that would end the smooth exit scheme and lower the benefit amounts as of 1 January 2024. Therefore, the smooth exit scheme was only in place in 2023.

- *Benefit amount*

In 2007-2017, the benefit was 2.2 times CCR. Between July 2017 and December 2022, it was 300 EUR per month for families with 3-6 children and 400 EUR per month for families with at least seven children. In 2023, it was 650 EUR per month for families with 3-6 children and 850 EUR for families with 7 or more children. Since 2024, the benefit amounts are 450 EUR per month for families with 3-6 children and 650 EUR per month for families with 7 or more children.

- *EUROMOD modelling*

As with child allowance, the allowance for families with many children is oversimulated since the age variable is calculated as of the end of the income year and the benefit is paid monthly. Due to that we don't have the exact information relating to how many months of the year the families are eligible for the allowance when their child's age is nearing the border of the age limit to be eligible for the allowance.

Due to the temporary nature of the smooth exit scheme, which remained in effect only in 2023, and its applicability only to families eligible for the benefit as of 1 January 2023, along with the consideration that the age variable is recorded at the end of the year, it was not feasible to precisely determine which families were eligible for the benefit as of 1 January 2023. As a result, we chose to simulate the scheme by including families with either 2 dependent children and 1 child aged 19-20 (receiving 2/3 of the full benefit amount), or 1 dependent child and 2 children aged 19-20 (receiving 1/3 of the full benefit amount) as eligible for the scheme. The specific provisions for triplets or higher-order multiples are not modelled due to their rare occurrence in the survey data.

2.5.11 Subsistence benefit (bsa00_ee)

- *Brief description*

Subsistence benefit (*toimetulekutoetus*) is a means-tested social assistance benefit that should guarantee a minimum income to all residents after paying for minimum housing costs.

- *Definitions*

The unit of analysis is a household. Households whose income after payment for housing expenses, calculated according to certain general criteria and specific rules set by municipalities, is below the subsistence level are entitled to these benefits.

Duration is unlimited but granted and renewed on a monthly basis. Municipalities have the right to refuse the payment of benefits to people in working age and capable for work, but who do not study or work, and who have repeatedly refused to accept suitable work. Also, a local authority has the right to refuse to grant a subsistence benefit if the local authority finds that the property used or owned by the subsistence benefit applicant or his or her family or the lease, rental or sale thereof ensures sufficient funds for coping for the person or his or her family. From January 2021, a local government may also reduce or not pay the subsistence allowance if a person has been granted an old-age pension, but the person has submitted an application to reduce the amount of the pension or suspend the payment of the pension.

The means-testing is based on household net income in the previous month (or average in the last 6 months if not receiving income on regular basis). Certain types of income are disregarded, for example, social benefits for disabled persons, one-off benefits (e.g., birth grant, funeral grant), training stipends.

Household subsistence level is calculated as follows. It is summed over the household members, assigning 100% of the subsistence rate for the head of household and 80% for any other household member. In 2016-17 the weights were as follows: first adult and children 100% and additional adults 80%. Since 2018 the weights are as follows: first adult 100%, additional adults 80% and children 120%. The subsistence rate was 130 EUR in 2016-17, 140 EUR 2018, and 150 EUR in 2019-2021 and 200 EUR since June 2022 and also in 2023 and 2024.

The "norm-space" of the household is derived as follows. First, the norm-space is 18m^2 per person in the household plus additionally 15m^2 per household (i.e., 15 + 18 x number of persons in unit). In case the number of rooms used equals the number of persons living in this dwelling permanently, and the actual living space exceeds the norm area then the actual living space is used instead. If the area of the apartment is smaller than the norm-space, then the actual area is also taken as a basis for calculations. For a single pensioner applying for subsistence benefit, the norm-space can be up to 51m2.

Income list

Income for the subsistence benefit is calculated using all current income except lump-sum benefits (e.g., childbirth allowance), benefits for the disabled, school allowance (abolished in 2009) and large family allowance (abolished in 2009), needs-based family benefit (existed in 2013-2017) and other social assistance. Since July 2013, part of child allowance for the third and each subsequent child is also excluded from the means-test: between July 2013-Dec 2014 in the amount of 19.18 euros (=2xCAR) for each child receiving child allowance and 45 euros since January 2015. Formula until 2017:

$$Y_{bca} = \sum_{1}^{n} bca - \sum_{3}^{n} ch * 45$$

where Y_{bca} is household child allowance income, *bca* is child allowance per every child and *ch* is the number of children.

Formula since 2018:

$$Y_{bca} = \sum_{1}^{n} bca$$

Income concept refers effectively to income net of withholding income tax. Only positive income from self-employment is included.

To motivate working, part of the family's income is excluded when calculating the benefit since 2018. This includes remuneration for work in case of children, and 100% of wage during the first two months and 50% of wage the following four months of employment of the adult who has received the benefit for at least two preceding months in a row without receiving income from employment.

- *Benefit amount*

The general rule for subsistence benefit is the following:

$$B = \max(L + C - Y; 0)$$

B = subsistence benefit;
L = subsistence level (see above);
C = actual costs related to the dwelling (excluding mortgage interests) up to maximum limits set by the local government and which are calculated for "norm-space". Until June 2022 excluding mortgage interests, since July 2022 including mortgage interests if a payment holiday has already been taken out or refused by the bank;
Y = household income according to the income definition for the subsistence benefit purpose.

There is an additional supplement 15 EUR (since 2011) if the household is entitled to subsistence benefit and there is only one adult in the household and all other household members are younger than 18.

Since 2018 children's weight in the formula is equal to the 120% (previously 100%), i.e., weights are: first adult=1; children=1.2 and additional adults = 0.8.

- *EUROMOD modelling*

Imputation of housing costs

In practice, housings costs for "norm-space" depend further on the detailed rules by municipalities. In our case we approximate these with actual costs related to dwelling in proportion to housing size and applying an upper limit to avoid unreasonably large housing costs. We currently use the average actual housing cost from registry data as a ceiling, which was 122 EUR in 2016, 133 EUR in 2017, 143 EUR in 2018, 156 EUR in 2019, 162 EUR in 2020, 176 EUR in 2021, 199 EUR in 2022, 304 EUR in 2023 and for 2024, the 2023 figure is adjusted with the CPI forecast.

Total housing cost variable also includes mortgage interest payments which hence must be deducted here. Although from June 2022, mortgage interests may in certain cases also be included in the subsistence benefit amount, we do not simulate this, as we do not have any information on whether a payment holiday has already been taken out or refused. Note that while housing costs in EU-SILC refer to the average monthly costs of the interview year then mortgage interest payments refer to annual figures of the income year. Either because of this or recall errors total monthly housing costs are sometimes smaller than monthly mortgage interest payments and, in these cases, we have scaled up the housing costs to the level of mortgage interest payments.

Means-testing

EUROMOD underlying datasets lack information on income specifically in the previous calendar month (or average in last 6 months). Instead, the model operates with average monthly incomes derived from annual figures. For this reason, it is also not possible to simulate the time-dependent earnings disregard introduced in 2018 (see above).

Take-up and calibration

BTA extension is off, so the baseline model does not adjust for non-take-up of the benefit, but the user can activate them if necessary; BCA extension is on, so it calibrates the receipt of the benefit. See section 2.4 for technical details on both extensions and their interaction. 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 $bsa00 takeup_rate constant in the model.

  - BCA: The total number of benefit recipients needs to be filled out in the External Statistics table, so that the calibration rate ($extstat_number_bsa00_s) is computed accordingly. Data are currently available for the years 2019-2023; given the absence of information for 2024, the calibration rate is not computed within the 2024 system, but the one computed within the 2023 system is used instead. For the modelling of reforms, the 2024 system 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 2023 to the new pool of eligible units. If previous systems were used for reforms, total number of beneficiaries would remain constant irrespective of the reform applied, since the model would always stick to the existing external statistics.

2.5.12 Needs-based family benefit (bsach_ee)

- *Brief description*

Needs-based family benefit (*vajaduspõhine peretoetus*) was a monthly benefit that was paid to households with children whose average income in the previous three months had been below a certain threshold between July 2013 till the end of 2017. (The payments of the means-tested family benefit, for which the recipients applied before January 1, 2018, continued until March 2018. However, new applications are not accepted from January 1, 2018, and the payments ceased for the old applications after March 2018.) Further details can be found in earlier country reports.

2.5.13 Pensioner's living alone allowance (bsape_ee)

- *Brief description*

Pensioner's living alone allowance (*üksi elava pensionäri toetus*) was introduced in 2017 and is a yearly allowance that is paid to a person who has attained pensionable age and who is living alone in Estonia and whose average monthly income is below a certain threshold.

- *Definitions*

The unit of analysis is a person. The person must be living alone according to the population register and should be at retirement age or older. The living alone clause does not apply to a person (i) who lives together with a minor child or a child who is acquiring education and under 21 years of age, (ii) receives 24-hour care service or shares the residence with such a person, or (iii) is a guardian or is under guardianship.

There is also a means-test: monthly net state pension must be below the rate of pensioner's allowance. Net state pension refers to old-age pension, net of withheld income tax where basic tax allowance and pensioners tax allowance are applied. The amount and the rate of pensioner's allowance are established in the annual state budget.

All criteria must be fulfilled throughout a period from April to September in a given calendar year.

- *Allowance and rate amount and duration*

The amount of allowance was 115 EUR per year between 2017-2021 but increased to 200 EUR in 2022. Duration is unlimited but granted and renewed every year. The rate of pensioner's allowance (i.e., income limit) was 470 EUR per month in 2017, 492 EUR per month in 2018, 540 EUR per month in 2019, 582 EUR per month in 2020 and 636 EUR in 2021, 669 EUR in 2022, 720 EUR in 2023 and 874 EUR in 2024.

- *EUROMOD modelling*

Since 2023, the benefit only partially simulated within the model, with only the amount being simulated. This change occurred because the input data now incorporates a register-based variable specifically for this benefit. As a result, the output file still includes information regarding the benefit. The utilization of a register-based variable provides a more accurate representation of the beneficiaries, as it reflects the actual recipients of this benefit.

Prior to 2022, the application of the living alone clause was limited due to the lack of comprehensive information on guardianship, 24-hour care services, and only having data pertaining to dependent children in the underlying EUROMOD datasets. The non-take-up of the benefit was not incorporated into the model. The payment of this allowance is based on register data, and individuals do not need to submit an application to receive it. Therefore, everyone who qualifies for the allowance should automatically receive it. However, there may be some exceptions if the register data are found to be inaccurate.

2.5.14 Simulation of Covid-19 wage compensation measure

- *Brief description*

Wage compensation (*töötasu hüvitis*) was a benefit for the employees whose employers face difficulties due to Covid-19 outbreak. Firstly, it was paid at the beginning of the crisis between March and June 2020. This measure was renewed with slightly different conditions between March and May 2021, when stricter restrictions were imposed. This subsidy depends on previous earnings.

- *Definitions and eligibility conditions*

The unit of analysis is an individual person. To be considered eligible, a person must be employed, work for an employer who faces difficulties due to covid-crisis (e.g., turnover has decreased).[6]

Between March and May 2020, the compensation was 70% of the employees' gross wage (with a maximum monthly amount of €1,000); employees could receive it for maximum two months during the period between 1 March and 31 May 2020. In June 2020, the compensation was 50% of the employees' gross wage (with a maximum amount of €800). In addition, the employer had to pay at least €150 to the employee. In total, the employee received at least the minimum wage

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[6] More detailed description of eligibility conditions for firms is brought out in sub-section 1.5.

(€584). In case the employee had thus far received less than the minimum wage due to working part-time, their income remained the same as before.

Between March and May 2021, the compensation was 60% of the employees' gross wage (with a maximum monthly amount of €1,000). In addition, the employer had to pay at least €200 to the employee. In total, the employee working full-time received at least the minimum wage (€584). Temporary subsidy was also paid to self-proprietors in the fixed amount of minimum wage (€584).

- *EUROMOD modelling*

Effectively, this benefit is only partly simulated using the information about actual receipt. However, not all required information is available. For instance, eligibility conditions for firms are not considered (the employer's turnover has decreased; the employer is not able to provide the agreed amount of work; and the employer must reduce the wage of his/her employees). In 2021, the wage compensation was paid also to self-proprietors. However, as the number of recipients is small and there are no statistics available on how many self-proprietors received it, it is not simulated separately in EUROMOD. To simulate the transition from employment into compensation scheme, random variables are created.

Two variables have been created: compensation paid by the state (bwkmcee_s) and compensation paid by the firm (yemmc_s). Additionally, income from work and number of months worked (yem and yemmy) are adjusted to account for the reduction of months of work.

In addition, several assumptions have been made:

1) External statistics have been used to assume and randomly allocate, who will enter wage compensations scheme. Based on statistics of Unemployment Insurance Fund, it is assumed that in 2020, 60% of workers in hotels and restaurants sector, 17% of workers in construction, 32% of workers in wholesale and retail, 5% of workers in agriculture, 26% of workers in mining, manufacturing and utilities, 14% of workers in transport and communication, 4% of workers in finance, 13% of workers in real estate, 3% of workers in education, 12% of workers in health and social work and 18% of workers in other sector will enter wage compensation scheme. In 2021, it is assumed that 42% of workers in hotels and restaurants sector, 3% of workers in construction, 13% of workers in wholesale and retail, 1% of workers in agriculture, 4% of workers in mining, manufacturing and utilities, 3% of workers in transport and communication, 1% of workers in finance, 2% of workers in real estate, 1% of workers in education, 1% of workers in health and social work and 7% of workers in other sector will enter wage compensation scheme
2) It is assumed that the amount of compensation paid by the firm is lump-sum, i.e. employer pays the minimum required amount (€150 in 2020 and €200 in 2021) to the employee.

Covid-19 wage compensation measures are also subject to taxes and social insurance contributions as wages and it is also considered in EUROMOD.

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

2.5.15 Simulation of the price relief support (bsaxp_ee)

- *Brief description*

To combat the effects of inflation, a one-time price relief support of €50 was paid to pensioners who have reached retirement age, persons with reduced work ability and recipients of child support in November 2022.

- *Eligibility and amount*

The support was available to individuals who met the following criteria: a) individuals receiving an Estonian state pension who reached the pensionable age of 64 years and 3 months; b) individuals receiving a disability pension or national pension with a 100% loss of work ability; c) persons receiving child benefits.

The support amount varied based on the situation: a) for all pensioners and individuals with a 100% loss of work ability, a one-time payment of €50 was provided. B) for households with children, an additional €50 was granted for each child eligible for child benefits. This means that a household with 1 child received €50, a household with 2 children received €100, and so on.

There was no means-test to determine eligibility for the support and the benefit was granted automatically to everyone eligible.

- *EUROMOD modelling*

This one-off policy is included in the baseline of the 2022 system, since, as noted in the modelling conventions, one-off policies should be included as part of the baseline simulations irrespective of the date of their implementation.

In the model we include as recipients:

1) individuals with no work ability who have received either the work ability allowance or the disability pension throughout the year and who, according to register data, are marked as having no work ability;
2) individuals in a pensionable age and who have received an old-age pension throughout the year;
3) households receiving child allowances. The benefit amount is multiplied with the number of dependent children in the household.

2.6 Social insurance contributions

Social contributions are paid by employees, employers and self-employed. Social insurance is highly centralised, and the main contributions are formally named as a tax (*social tax*).

2.6.1 Employee social contributions (tscee_ee)

Employees and employers pay social contributions as a fixed percentage of gross wages (see Figure 2 for a schematic definition of the gross wage and other direct taxes on wages). The calculation of social contributions for self-employed is discussed in detail in Section 2.6.3.

Figure 2. Schematic composition of tax base of social contributions
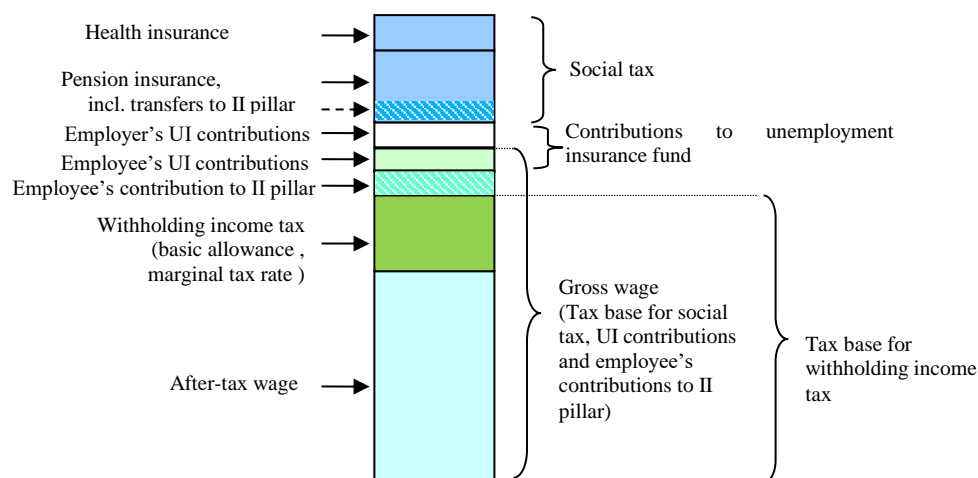
Employees pay from their gross wage their part of the unemployment insurance contributions (unless they are of the pensionable age or receiving old-age pension) and a contribution to the funded pension scheme. Since January 2021, the contributions to the funded pension scheme are voluntary. Thus, it is possible to continue payments as before or suspend payments. Previously it was optional for certain (older) age groups. Since 2024, it is possible to submit an application to increase the percentage of funded pension scheme contributions from 2% to 4% or 6%. The increase will be implemented as of 2025.

Unemployment insurance contributions (tsceeui_s)

Only employees who have not reached the legal pension age (different for males and females) and not receiving old age pension are obliged to pay unemployment insurance contributions. (There is no such exception for employer unemployment insurance contributions.) UI contributions are calculated as a fixed percentage of the gross employment income. The contribution rates have changed over the years (see the following table).

Table 2.13. Unemployment insurance contribution rates, 2005-2024

	2005	2006-2009 (May)	2009 (June-July)	2009 (Aug)-2012	2013-2014	2015-2024
Employers	0.5%	0.3%	1%	1.4%	1%	0.8%
Employees	1%	0.6%	2%	2.8%	2%	1.6%

Pension contributions to the funded scheme (tpceepi_s)

Contributions are calculated as 2% of the gross employment income for those who participate in the scheme. Note that between 1st July 2009 – 31st December 2010 the contributions to the funded scheme were suspended. Persons with ten years from retirement (born 1954 or later) could, upon submitting a relevant application, resume individual contributions (2%) from 1st January 2010, in which case also state contributions from the social tax (4%) were transferred. Other age groups could also continue to pay individual contributions (2%) from 1st January 2010, but no contributions from social tax were transferred (i.e., the scheme applied is 2+0%). For any other

participant of the funded scheme (i.e., persons not opting for voluntary continuation of individual contributions), contributions to the funded scheme were gradually resumed from 2011, when a 1+2% scheme was applied, and from 2012 in full amount of 2+4%. However, since January 2021, it is possible to opt out from the funded pension scheme, suspend new payments or continue payments as before (2+4%). Since 2024, it is possible to submit an application to increase the employee's part of funded pension scheme contributions from 2% to 4% or 6% (i.e. the option for a scheme 4+4% or 6+4%), the change will be implemented as of 2025.

For 2014–2017, there was a compensation mechanism that will transfer additional social tax revenues to the funded scheme. By 15 September 2013, people who had joined the second pillar had an option to increase their contributions. About 106,000 people (approx. 16%) increased their contributions to 3% of gross wage (from usual 2%) and the share of social tax transferred to the funded scheme will increase from 4% to 6% of gross wage. The transfers to the funded scheme increased to 6% also for those 180,000 people who continued their contributions in 2010-2011 but did not choose to raise their contributions in 2014-2017.

Because of the Covid-19 crisis, the government decided to suspend the **contributions to the funded scheme** (4% from the social tax) between 01.07.2020-31.08.2021.[7] It was also possible for an employee to suspend the payment of a funded pension (2%) between 01.12.2020-31.08.2021. Between 2023 – 2024, the state will reimburse the 4% contribution and the yield of the pension fund to those who continued to pay 2%.

- *EUROMOD modelling*

In the national SILC dataset the information on making contributions to the funded pension scheme in 2014 is available for those only who are employed (variable *lpm*). We have merged this information directly to the EU-SILC dataset. For those who were not employed and whose participation information was missing we randomly simulated age-gender averages in the input data. In addition, the continuation of contributions in 2010-2011 and an increase of contributions in 2014-2017 was randomly assigned based on the register data of the Estonian National Social Insurance Board when preparing input data.

The following table shows the simulation of contributions based on the actual indicator of participation (*lpm*), the continuation of payments in 2010 (*lpm01*), an increase of contributions in 2014 (*lpm02*), birth year (*dag*) and relevant contribution rates. The compensation mechanism ended in 2017 and thus variables lpm01 and lpm02 are not available as of SILC 2019.

Table 2.14. Contributions to the funded pension scheme in 2009-2017, % of employment income

	Born 1942-1954		Born 1955 or later	
Person's decision on individual contributions (variable *lpm01*) Year	Continues	Suspends	Continues	Suspends
2009 1st January - 31st May	2+4			
2009 1st June - 31st December	0+0			
2010	2+4	0+0	2+0	0+0
2011	2+4	1+2	2+2	1+2

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[7] The contribution rate of the mandatory funded scheme is 6% of gross wages – the employee pays 2% and the employer another 4%. Employer pays this 4% as part of the 20% pension insurance contribution (part of the social tax). Now government decided to suspend the contributions to the mandatory funded scheme (4% from the social tax) and it is part of the social tax (will go to I pillar).

2012-2013	2+4			
2014-2017	2+4	2+4	2+6	2+4
2014-2017* (option to increase contributions – *variable lpm02*)	-	3+6		

Note: the first number shows employee's contribution rate and the second number shows employer's contribution rate.

We do not simulate voluntary contributions to the private pension funds (i.e., payments into the 3rd pillar), using observed values from the data instead.

Since 2021, contributions to the funded scheme have been voluntary. Starting in 2024, the input data includes a variable (ypppb02) that indicates the receipt of II pillar payments before the pensionable age. This, combined with the variable (lpm) that contains information on employed persons making contributions to the funded pension scheme, is used to simulate whether contributions to the II pillar are being made.

Temporary suspending of the contributions to mandatory funded pension scheme during the COVID crisis is not simulated in EUROMOD as it is not known in the input data, who suspended their payments. In addition, relatively few people suspended their payments temporarily (approximately 1.4% of those who have joined the second pillar).

2.6.2 Employer social contributions (tscer_ee)

Employers pay the social tax, which is divided into a health insurance part and a pension insurance part. The social tax is applied to gross employment income, subject to the minimum level (see rates in Table 2.15) which is independent of work intensity (i.e., whether working part-time or full-time). The pension insurance component is further allocated between the state pension scheme and funded pension scheme for those employees who have joined the funded pension scheme (it is voluntary since 2021). Employers also pay their part of the unemployment insurance contributions. Central government pays the social tax, either total or health insurance part, on certain social benefits (see section 2.6.4 for more details).

The minimum liability does not apply to minors, recipients of public pensions and, since 2007, students in certain age groups (studying at primary or lower secondary level and aged under 21, studying at upper secondary level and aged under 24 or studying at post-secondary or tertiary level) as well as parents raising young children (a child under 3 years old or at least three children under 19 years old).

Pension contributions

Pension contributions to the first pillar (the PAYG scheme) are 20% of the employment income (subject to the minimum level), minus transfers to the funded pension scheme (variable ttferpi_s in the EURMOD). The latter is 4-6 percentage points (out of 20%) for those participating in the funded scheme. (See section 2.6.1 above.)

Health insurance contributions

The total health insurance contributions are calculated as 13% of gross employment earnings (subject to the minimum level).

Unemployment insurance contributions

Unemployment insurance contributions amount to a fixed percentage (0.3-1.4% in 2009 and 1% in 2013-2014 and 0.8% in 2015-2024, see the table in section 2.6.1 above) of employment income.

Total contributions

Total employer contributions equal contributions to the pension insurance/1st pillar (tscerpi_s) + transfers to the funded scheme/2nd pillar (ttferpi_s) + contributions to the health insurance (tscerhl_s) + contributions to the unemployment insurance (tscerui_s).

Note that the first three are included in 'social tax' in the national statistics.

2.6.3 Self-employed social contributions (tscse_ee)

Self-employed pay the social tax (pension and health insurance contributions) and contributions to the funded pension scheme (optional since 2021). They do not pay unemployment insurance contributions.

Until 2006, advance payments of self-employed contributions were deductible from the contribution base. Since 2007, instead the contribution base is calculated as gross income from self-employment divided by 1.33 (contributions to the pension insurance and health insurance). Effectively, the liability remains the same, but the system is somewhat simpler without having to pay all contributions in advance. Gross income from self-employment is income after deducting related expenses less the tax allowance on income from agriculture.

Self-employed are subject to a minimum contribution base (similar to employers), unless they are receiving state pensions or the central government is already paying minimum contributions due to certain benefits. Also, this can be offset against social insurance contributions paid by employers for self-employed also undertaking paid employment. Those who work on the basis of more than one contracts under the law of obligations, the prerequisite for obtaining insurance is that the minimum amount of the social tax (239.25 EUR in 2024) taken together from all the contracts per month has been met. Previously, there was no possibility of aggregation and the employed persons working under several contracts that in aggregation guarantee the minimum obligation, did not get insurance. Finally, there is an upper annual limit to the social contributions base, which is 10 times the annual legal minimum wage since 2018 (i.e., 98,400 EUR in 2023). The maximum tax liability was hence €32,472 in 2023 (33% of 98,400).

Table 2.15. Upper and lower limit of social tax base for self-employed (EUR), 2021-2024

	2021	2022	2023	2024
Minimum monthly social tax base	584	584	654	725
Minimum monthly wage	584	654	725	820
Upper annual limit of social tax base (10 times minimum wage since 2018)	70,080	78,480	87,000	98,400

Pension insurance contributions

Participation in the funded pension scheme and calculation of the contributions to the state pension scheme and funded pension scheme are the same as for employees and since 2021, the contribution to the funded scheme is voluntary. Contributions to the funded pension scheme have two parts: one is 4% of the contribution base transferred from the social tax and additional 2% funded pension insurance contributions if the person participates in the funded pension scheme. From 2024, the additional 2% funded pension insurance contributions could also be increased to 4% or 6%, this change would be implemented as of 2025. Altogether, a self-employed person therefore directly contributes 6% for himself, or since 2024 6% or 8% or 10%. The contribution to the state pension scheme amounts to 20% of the contribution base less a transfer to the funded pension scheme:

Health insurance contributions amount to 13% of the contribution base

Total contributions

Total self-employed contributions equal to contributions to the pension insurance/1st pillar (tscsepi_s) + contributions to the health insurance (tscsehl_s) + "transfers" to the funded scheme/2nd pillar (ttfsepi_s) + contributions to the funded scheme/2nd pillar (tpcsepi_s).

Note again that the first three are included in 'social tax' in the national statistics, and two latter are included in funded pension contributions in the national statistics.

- *EUROMOD modelling*

Depending on the dataset the definition of self-employed is slightly different. In the EU-SILC data the self-employed are those either with employees, without employees or family worker. In HBS data the self-employed are those who had stated in the survey data that their status in employment belongs to the category "Self-employed, farmer without hired workers, freelancer".

Also, only HBS database has enough information to simulate tax allowance on income from agriculture. As with general income tax base, income from non-registered self-employment activity (available in EU-SILC and EE-SILC) is assumed to be not reported and hence, not included in the contribution base.

2.6.4 Credited contributions (tscct_ee)

Government pays social contributions on a certain minimum base (see Table 2.15 in previous section), determined each year with the government budget, for those receiving either childcare allowance (*lapsehooldustasu*), large family parent allowance (*seitsme- ja enamalapselise pere vanema toetus*), parental benefit (*vanemahüvitis*) or unemployment allowance. There are some other minor categories which are not included in the model.

Government pays both the health care insurance (tsccthl_s) and the pension insurance part (tscctpi_s) on the minimum base for those receiving childcare allowance, large family parent allowance, or parental benefit and only the health care insurance part for those receiving unemployment allowances. Unemployment insurance fund pays health care insurance contributions for those receiving unemployment insurance benefits and the base is equal to the benefits (hence can be smaller or larger than the minimum base).

There are extra pension insurance contributions (tpcctpi_s), paid by the central government, to the 2nd pillar for those raising young children. These are calculated as 1% of the maternity benefit for each related child until 2012. Since 1st January 2013, the government pays 4% of the average monthly taxable wage two years ago (i.e., 4% of €908.12 in 2016, €969.05 in 2017, €1,029.85 in 2018, €1,106.6 in 2019 and €1,182.7 in 2020) for each child under three years old and born after 1st January 2013. Since 2021, the additional payment by the government to the II pillar depends on whether person has joined the second pension pillar or not. The government pays 4% of the average monthly taxable wage two years ago (i.e. €57.22 in 2023) to the II pillar pension account for those who have joined. If person has not joined the II pillar, he/she will receive a pension supplement in the amount of 3.5 yearly rates.

2.7 Direct taxes

Here we distinguish between (monthly) withholding income tax and (annual) income tax liability based on the final tax report. Withholding income tax is required for simulating subsistence benefit and needs-based family benefits which are based on current net income. Tax base for

withholding tax is narrower than for the final tax liability, e.g., it does not include income from self-employment, rent, royalties, and only the main tax allowances are taken into account.

2.7.1 Tax unit

Withholding income tax is applied at the individual level, however, for the final tax liability married couples were allowed to submit a joint declaration before 2017. Since 2017, joint declarations were abolished though a few tax allowances could still be shared between spouses or, as of 2024, registered partners, and also in 2017, a new tax allowance for spouse was introduced. A dependent child for the tax allowance purposes is defined as aged up to 17. Since 2024, tax allowances for children and spouses were abolished.

2.7.2 Exemptions

The following income sources are non-taxable: all family benefits (except parental benefit), unemployment allowance, unemployment retraining benefit, subsistence benefit, annual refund for low-paid employees (in 2016), scholarships and grants, voluntary maintenance payments and dividends, on which firms pay only corporate income tax in Estonia. Before 2011, compulsory maintenance payments (alimony) were considered part of taxable income of the recipient and tax deductible for the payer, since 2011 they are exempted of taxable income of the recipient and no longer tax deductible for the payer. Interest income was non-taxed if received from an EU financial institution before 2018 and taxable since 2018.

2.7.3 Tax allowances

First, basic tax allowance, which equalled €170 in 2016 and €180 in 2017. In 2018, basic income tax allowance per month was raised to €500 per month (€6,000 per year), while additional tax allowance on pensions and compensation for accident at work were abolished. In 2023, the basic tax allowance was increased to €654 per month (€7,848 per year) and for people in a pensionable age (64 in 2023), the basic tax allowance was made equal to the average pension of the previous year (€776 per month, €9,312 per year in 2024).

The basic tax allowance in Estonia underwent changes in 2018, becoming income-dependent. The following conditions apply:

- For annual incomes up to €14,400, the annual basic tax allowance was €6,000 from 2018 to 2022, and it increased to €7,848 starting from 2023.

- In the case of annual incomes ranging from €14,400 to €25,200, the calculation of the basic tax allowance is determined using a formula. From 2018 to 2022, the formula was: 6,000 - (6,000 ÷ 10,800) × (income amount - 14,400). However, since 2023, the formula has changed to: 7,848 - (7,848 ÷ 10,800) × (income amount - 14,400).

- For annual incomes exceeding €25,200, the basic tax allowance is set to €0.

Beginning from 2023, the tax allowance for individuals of pensionable age is no longer based on their income. Additionally, it is higher compared to the basic tax allowance, as it has been set at the estimated average pension amount of that year, which stands at €776 per month or €9,312 per year in 2024. The tax-free allowance is applied for the entire year, even if a person reaches the retirement age during that year.

Secondly, tax allowance for pensions, which equalled €225 in 2016 and €236 in 2017 (per month). Pension allowance was applicable only to state pensions (i.e., old-age, disability and survivors' pensions) and could be claimed jointly if both spouses received state pensions. The pension allowance was abolished in 2018.

Till 2018, there was also a tax allowance for compensation for an accident at work or an occupational disease and an allowance for tax-free childbirth benefit paid by employer, but these are of little importance and not simulated in EUROMOD. Basic tax allowance and tax allowances for pensions and compensation for an accident at work or an occupational disease could be claimed on a monthly basis, while other tax allowance can be claimed when filing a tax report in the following year.

Thirdly, a tax allowance for families, which amount per child (from the 2nd onwards – since 2009) before 2016 was equal to the basic allowance less the taxable income of the children. From 2016 onwards, the amount of the additional child allowance was detached from the basic allowance and fixed at the level of basic allowance in 2015, i.e., the child allowance per each child from the 2nd onwards is 1,848 EUR per year in 2016-2019. Between 2020 and 2023, tax free income for second child was 1,848 EUR per year and starting from the third child it was 3,048 EUR per year. In 2024, this allowance was abolished.

Fourthly, a tax allowance for spouse was introduced in 2017, equal to 2,160 EUR per year less taxable income of the spouse. To be eligible, combined taxable income of the married couple must not have exceeded 50,400 EUR per year and the allowance could not exceed the difference between 50,400 EUR and combined annual taxable income of the married couple. This measure was also abolished in 2024.

Finally, there is a tax allowance for self-employment income from agriculture (which reduces liability both for income tax and self-employed SIC). Tax allowance from agriculture was 2,877 EUR until 2020 and 5,000 EUR since 2021.

All allowances are non-refundable, i.e., their value cannot be larger than the income tax base. See also the following table.

Table 2.16. Income tax parameters, 2017-2024

	2017	2018	2019	2020	2021	2022	2023	2024
Income tax rate	20%	20%	20%	20%	20%	20%	20%	20%
Basic tax allowance, EUR per month	180	500	500	500	500	500	654	654
Tax allowance for pensions, EUR per month	236	-	-	-	-	-	-	-
Tax allowance for individuals in a pension age, EUR per year	-	-	-	-	-	-	8448	9,312
Additional tax allowance for each child starting from … child	2nd	2nd	2nd	2nd	2nd	2nd	2nd	-
Tax allowance for children, EUR per year (for second child)	1,848	1,848	1,848	1,848	1,848	1,848	1,848	-
Tax allowance for children, EUR per year (starting from third child)	-	-	-	3,048	3,048	3,048	3,048	-
Tax allowance for spouse, EUR per year	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160

2.7.4 Tax deductions

First, contributions to the unemployment insurance fund and to the funded pension scheme are fully deductible from taxable income. Before 2011, compulsory maintenance payments (alimony) were also fully deductible.

Second, the following expenses can be deducted from taxable income, but no more than 50% of taxable income in total or 1,200 EUR per year in 2016-2024: education expenses, donations and until 2024, housing loan interest payments, which were also capped at 300 EUR per year from 2027.

Third, pension contributions to the 3rd pillar (i.e., voluntary funded scheme) can be deducted from taxable income, up to 15% of taxable income or 6,000 EUR (per year).

Fourth, 20% of rental income of one residential property can be deducted from taxable income since 2016 as it is considered to reflect owner's costs related to renting.

- *EUROMOD modelling*

We do not have data on donations and these are excluded.

2.7.5 Tax base

Income tax base is calculated as taxable incomes (see Section 2.7.2 for exemptions) less allowances and deductions.

Withholding income tax

Incomes subject to withholding income tax can be grouped into two:

1) incomes for which the basic allowance is not taken into account: sickness benefit and maternity benefit paid, and royalties.

2) incomes for which the basic allowance is usually taken into account: disability pension, old-age pension, survivors' pension, parental benefit, unemployment insurance benefit, employment income, severance payments, taxable maintenance payments received (i.e. alimony), less alimony payments made (before 2011) and social security contributions by employees.

In the case of pensions, the pension allowance is also taken into account.

The income tax rate in Estonia is 20%. However, there are some exceptions. Since 2021, lifetime pension, fixed-term pension or payments to a person who has no work ability are not charged by income tax (tax rate 0%). However, tax rate on lump-sum private pensions which are disbursed not more than 5 years before the retirement age is 10%. Until 2020, private pensions were taxed at a rate of 10%.

Since January 2018, a lower tax rate of 14% will be applied to regularly paid dividends. However, in this case income tax rate of 7% will be charged on all dividends and other profit distributions received by a person.

Withholding income tax is a sum of three components:

a) income tax on items that take into account the basic allowance and the pension allowance,
b) income tax on items that do not take into account tax allowances,
c) income tax on private pensions.

Final income tax

Compared to the withhold income tax, final income tax considers several additional aspects:

1) tax base includes income from self-employment,
2) married couples may submit a joint declaration (before 2017) or transfer some tax allowances if unused (since 2017),
3) there is an additional allowance for families with children,
4) there are deductible expenditures (education expenses, mortgage interest payments, contributions to the voluntary pension funds, part of rental income).

Income from self-employment

Taxable income from self-employment is equal to income from self-employment less related expenses (directly available in EU-SILC and EE-SILC), and minus social insurance contributions, except contributions to the funded pension scheme. The latter can be deducted from total income. Taxable business income is derived on individual basis.

- *EUROMOD modelling*

Due to data limitations, we cannot simulate sickness allowance, child-birth allowance and deductions related to donations and trade union membership fees. In EU-SILC and EE-SILC data we cannot separate agricultural income and hence cannot simulate the tax allowance for self-employment income from agriculture.

Simulation of large family tax allowance is partly optimised by assigning it to the spouse with highest taxable income (before applying the allowance itself), in the case of a cohabiting couple.

The retirement age undergoes an incremental increase of 3-month intervals each year, based on the individual's birth year, until 2026. The age variable is recorded as of the end of the income year. As a result, in 2023, the pension age parameter is rounded up, which means that some individuals who have reached the actual retirement age by the end of the year may not be assigned the increased rate of tax allowance designated for those of pensionable age.

2.7.6 Annual refund to low-paid employees (tinrf_ee)

- *Brief description*

Annual refund to low-paid employees (*madala sissetulekuga töötava isiku iga-aastane tagasimakse*) was a non-taxable benefit paid once a year to people with low pay. It was valid only in 2016 and people could apply for it when submitting a tax report in 2017 for the previous calendar year. Further details can be found in earlier country reports.

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 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 times 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 Akoğuz et al (2020).[8]

2.8.1 VAT (il_tva)

To extract the baseline VAT embedded in the expenditure consumption reported by households we only need the VAT rate of the policy system year. VAT rates usually do not vary too much across product, and are typically three rates (standard, reduced and zero), although in some countries there are more. In Estonia, VAT rates for press publications are taxed with 5% as of August 2022 due to the war in Ukraine.

Table 2.17. VAT rates, 2021-2024

	Products	2021	2022	2023	2024
Standard[9]		20%	20%	20%	22%
Reduced	Mainly applies to books and educational literature, medicinal products, accommodation services.	9%	9%	9%	9%
Super reduced	Applies only to press publications from August 2022.	n/a	5%	5%	5%
Zero	Mainly applies to exported goods, sea-going vessels navigating international waters, aircraft used by an air carrier operating mostly on international routes.	0%	0%	0%	0%
Exempted[10]	Covers mainly goods and services of a social nature (universal postal services, health services, etc), some services and goods provided in the course of regular business (insurance services, immovable or parts thereof, etc)	-	-	-	-

2.8.2 Ad-valorem excises (il_txv)

Ad-valorem excises cover cigarettes and cigars produced in Estonia or brought to Estonia. The ad-valorem excise rates are presented in Table 2.18.

Table 2.18. Ad-valorem excise rates, 2021-2024

Products	2021	2022	2023	2024
Cigarettes	30%	30%	30%	30%
Cigars	10%	10%	10%	10%

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[8] Akoğuz, Elif Cansu, Bart Capéau, André Decoster, Liebrecht De Sadeleer, Duygu Güner, Kostas Manios, Alari Paulus, and Toon Vanheukelom. A new indirect tax tool for EUROMOD: final report. Technical Report, https://euromod-web.jrc.ec.europa.eu/sites/default/files/2021-03/A%20new%20indirect%20tax%20tool%20for%20EUROMOD%20Final%20Report.pdf

[9] Reduced rates for specific territories in AT, EL, ES, FR and IT are not modelled yet.

[10] Only country specific exemptions

2.8.3 Specific excises (il_txa)

Specific excises apply to energy products, alcoholic beverages and tobacco products. In this case, we collect both tax parameters and consumer prices, to allow the model to estimate the implicit quantities behind the reported household consumption expenditure amounts. Specific excise rates are outlined in Table 2.19 and the prices of excise products are presented in Table 2.20.

Table 2.19. Specific (ad-quantum) excise rates, 2021-2024

Products	2021	2022	2023	2024
Ethyl alcohol	1881 EUR/100 L of pure alcohol	1881 EUR/100 L of pure alcohol	1881 EUR/100 L of pure alcohol	1975 EUR/100 L of pure alcohol
Wine (still and sparkling)	147.82 EUR/100 L	147.82 EUR/100 L	147.82 EUR/100 L	155.21 EUR/100 L
Wine (<6%, still and sparkling)	63.35 EUR/100 L	63.35 EUR/100 L	63.35 EUR/100 L	66.52 EUR/100 L
Wine (fortified wine, still & sparkling)	289.33 EUR/100 L	289.33 EUR/100 L	289.33 EUR/100 L	303.8 EUR/100 L
Other wine (still & sparkling)	147.82 EUR/100 L	147.82 EUR/100 L	147.82 EUR/100 L	155.21 EUR/100 L
Other wine (<6%, still & sparkling)	63.35 EUR/100 L	63.35 EUR/100 L	63.35 EUR/100 L	66.52 EUR/100 L
Beer	12.7 EUR/100 L of ° alcohol	12.7 EUR/100 L of ° alcohol	12.7 EUR/100 L of ° alcohol	13.34 EUR/100 L of ° alcohol
Cigarettes	86.5 EUR/1000 pieces	91.3 EUR/1000 pieces	96.3 EUR/1000 pieces	100.5 EUR/1000 pieces
Cigars	151 EUR/1000 pieces	151 EUR/1000 pieces	151 EUR/1000 pieces	151 EUR/1000 pieces
Other tobacco (fine cut)	97.1 EUR/kg	101.9 EUR/kg	107 EUR/kg	112.4 EUR/kg
Electricity	1 EUR/MWh	1 EUR/MWh	1 EUR/MWh	1.45 EUR/MWh
Natural Gas - Heating	1.07 EUR/Gj	1.07 EUR/Gj	1.07 EUR/Gj	1.26 EUR/Gj
LPG - Heating	55 EUR/1000 kg	55 EUR/1000 kg	55 EUR/1000 kg	65.01 EUR/1000 kg
Gas Oil - Heating	372 EUR/1000 L	372 EUR/1000 L	372 EUR/1000 L	399 EUR/1000 L
Heavy fuel oil - Heating	58 EUR/1000 kg	58 EUR/1000 kg	58 EUR/1000 kg	58 EUR/1000 kg
Kerosene - Heating	330.1 EUR/1000 L	330.1 EUR/1000 L	330.1 EUR/1000 L	330.1 EUR/1000 L
Coal and Coke - Heating	0.93 EUR/Gj	0.93 EUR/Gj	0.93 EUR/Gj	0.93 EUR/Gj
Petrol (leaded or unleaded)	563 EUR/1000 L	563 EUR/1000 L	563 EUR/1000 L	563 EUR/1000 L

LPG - Propellant	193 EUR/1000 kg	193 EUR/1000 kg	193 EUR/1000 kg	193 EUR/1000 kg
Gas oil - Propellant	372 EUR/1000 L	372 EUR/1000 L	372 EUR/1000 L	399 EUR/1000 L
Kerosene - Propellant	330.1 EUR/1000 L	330.1 EUR/1000 L	330.1 EUR/1000 L	330.1 EUR/1000 L
Natural Gas - Propellant	1.07 EUR/Gj	1.07 EUR/Gj	1.07 EUR/Gj	1.1 EUR/Gj

Table 2.20. Prices of Excise products, 2021-2024

Prices	2021	2022	2023	2024[n]
Ethyl alcohol	25.33 EUR/l of vodka	26.01 EUR/l of vodka	27.16 EUR/l of vodka	29.43 EUR/l of vodka
Still wine	9.95 EUR/l	10.75 EUR/l	11.87 EUR/l	12.96 EUR/l
Sparkling wine	23.58 EUR/l	24.93 EUR/l	26.93 EUR/l	29.41 EUR/l
Fortified wine	14.51 EUR/l	13.56 EUR/l	13.48 EUR/l	14.63 EUR/l
Other wine	7.74 EUR/l	7.94 EUR/l	8.02 EUR/l	8.33 EUR/l
Beer	2.69 EUR/l	2.98 EUR/l	3.30 EUR/l	3.52 EUR/l
Cigarettes	213.50 EUR/1000 pieces	223.5 EUR/1000 pieces	233.5 EUR/1000 pieces	254.79 EUR/1000 pieces
Cigars	4180 EUR/1000 pieces	5390 EUR/1000 pieces	6060 EUR/1000 pieces	7270 EUR/1000 pieces
Other tobacco	159.76 EUR/kg	162.44 EUR/kg	167.05 EUR/kg	182.28 EUR/kg
Electricity	165.40 EUR/MWh	220.60 EUR/MWh	213.30 EUR/MWh	211.21 EUR/MWh
Natural Gas - Heating	15.89 EUR/Gj	28.75 EUR/Gj	26.08 EUR/Gj	20.63 EUR/Gj
LPG - Heating	2142.75 EUR/1000 kg	2623.29 EUR/1000 kg	2806.11 EUR/1000 kg	2788.35 EUR/1000 kg
Gas Oil- Heating	879.31 EUR/1000 L	1369.84 EUR/1000 L	1141.81 EUR/1000 L	1169.27 EUR/1000 L
Heavy fuel oil - Heating	61 604.31 EUR/1000 kg	91 904.27 EUR/1000 kg	101 935.14 EUR/1000 kg	96 507.33 EUR/1000 kg
Kerosene- Heating	3048.63 EUR/1000 L	6836.96 EUR/1000 L	4000.00 EUR/1000 L	3787.01 EUR/1000 L
Coal and Coke - Heating	3.45 EUR/Gj	7.1 EUR/Gj	7.31 EUR/Gj	6.64 EUR/Gj
Petrol - Euro-super 95	1426.49 EUR/1000 L	1851.14 EUR/1000 L	1716.60 EUR/1000 L	1641.11 EUR/1000 L
LPG - Propellant	709.69 EUR/1000 kg	856.57 EUR/1000 kg	698.65 EUR/1000 kg	665.36 EUR/1000 kg
Gas oil - Diesel	1238.31 EUR/1000 L	1790.39 EUR/1000 L	1608.02 EUR/1000 L	1559.03 EUR/1000 L

Kerosene - Propellant	3048.63 EUR/1000 L	6836.96 EUR/1000 L	4000.00 EUR/1000 L	3925.84 EUR/1000 L
Natural Gas - Propellant	16.46 EUR/Gj	30.49 EUR/Gj	17.68 EUR/Gj	17.35 EUR/Gj

n: nowcasted

Consumer prices of goods subject to excise duties are nowcasted, similarly to what the model does to update incomes 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 Akoğuz et al (2020).

- *EUROMOD modelling*

Consumption taxes (tco_ee 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 extended EM input files (see Section 3 for more information on the methodology and features behind these extended input files) should be selected (as defined in the database configuration of each country). The other add-ons (CT_*) are designed for reform simulations and assume different behavioural responses: i) constant quantities (CT_XCQ), ii) constant income shares (CT_XCIS), and iii) constant expenditure shares (CT_XCES). These reform-scenario add-ons require the 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).

3. DATA

3.1 General description

There are currently six types of Estonian datasets available as input data for EUROMOD:

1) European Union Survey of Living Conditions (EU-SILC) 2006, 2007, and 2008 data for Estonia;

2) Estonia Social Survey 2006, 2007 and 2008 (*Eesti Sotsiaaluuring 2006, 2007, 2008 –* EE-SILC), which is a national version of EU-SILC data and which was used by the Statistics Estonia to construct the EU-SILC database;

3) EU-SILC 2010, 2012, 2015, 2016, 2017, 2018 and 2019 datasets that have been supplemented with a few detailed income variables and labour market information from

the EE-SILC 2010, 2012, 2015, 2016, 2017, 2018 and 2019 database (with the permission of Eurostat and Statistics Estonia).

4) EUROMOD SILC database (EMSD) 2020, 2021 and 2022 that is provided to national teams by Eurostat to derive EUROMOD input variables and include all UDB variables, national data supplied by national teams (additional variables from EE-SILC 2020, 2021 and 2022 database) and EUROMOD variables imputed inside Eurostat. The final EUROMOD input datasets is made of variables created by both Eurostat (type E/E+p) and national teams (type N).

5) Household Budget Survey 2005 (*Eesti leibkonna eelarve uuring* - HBS).

6) Extended input data with household expenditures for the simulation of consumption taxes, which combines EU-SILC data with variables (household-level income shares of expenditures by product) imputed from EU/National-HBS (see also section 3.5).

The Household Budget Survey 2005 was discussed in detail in previous country reports, see Lüpsik et al. (2008) and Võrk et al. (2010), and we do not cover it in this report. Võrk et al. (2010) included an overview of the EE-SILC 2006 and EU-SILC 2006 datasets; Võrk and Paulus (2011, 2012, 2014) included an overview of the EE-SILC and EU-SILC datasets for 2007, 2008 and 2010 waves, respectively. Võrk et al. (2015, 2016) covered a combined EU-SILC and EE-SILC 2012 dataset. Masso et al. and Laurimäe et al. (2017, 2018, 2019, 2020, 2021) covered a combined EU-SILC and EE-SILC 2015, 2016, 2017, 2018, 2019 database, respectively. The previous country report, i.e. Laurimäe et al. (2022) covered a new combined EUROMOD SILC database (EMSD) which merged the datasets of EU-SILC 2020 and EE-SILC 2020.

This section describes an EMSD 2022 dataset. Note that since the 2013 wave, Estonian SILC draws information on main pensions and benefits from the official registers of Estonian Social Insurance Board, Health Insurance Fund and Unemployment Insurance Fund. Since the 2014 wave, most market income components are register-based too (provided by the Estonian Tax and Customs Board). Only a few income components remain question-based (e.g. private transfers, subsistence benefit).

Table 3.1. EUROMOD database description

EUROMOD database	EE_2022_f1
Original name	EMSD, EU-SILC (UDB (C22_release_23_09))
Provider	Eurostat (and Statistics Estonia)
Year of collection	2022
Period of collection	February-May
Income reference period	2021
Original sample size	12,993 individuals[11]
	5,735 households

For an overview of sampling methods, response rate and other quality indicators of the data and imputations carried out by Statistics Estonia see the latest quality report by Statistics Estonia (2022).

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[11] The final sample size is 12,977 individuals, as 16 children born after the income reference period were excluded.

3.2   Data adjustment

The EU-SILC database has the same number of individuals and households as the national version but includes less detailed information on income components. Therefore, some additional variables were merged from the national version.

The additional variables merged from the national dataset to compile EUROMOD input data 2022 are the following:

a) the extent of work ability;
b) whether a person has joined the mandatory funded pension scheme (II pillar);
c) whether a person is a civil servant or not;
d) the amount of the work ability allowance, disability pension, social benefits for disabled people and the benefit for pensioners living alone;
e) each family benefit separately: maternity benefit, pregnancy benefit, child allowance, childcare allowance, single parent child allowance, childbirth allowance, maintenance allowance, allowance for families with 3 or more children and other family benefits (contains foster care allowance, start in independent life allowance, benefits paid by municipalities and foreign allowances related to children/family);
f) separately unemployment insurance benefit, unemployment allowance, severance payments (consists of redundancy benefit, benefits paid in case of insolvency of employers and redundancy related income (by Estonian Tax and Customs Board)), other unemployment benefits (start-up subsidy), as well as the duration of registered unemployment (in days), the duration of unemployment insurance benefit (in days), the duration of unemployment allowance (in days);
g) income received from pensions from individual private plans, from the mandatory funded scheme (II pillar) and from the voluntary funded scheme (III pillar), one-time payoffs included;
h) whether a person is registered as a self-employed;
i) self-employment income from non-registered and registered activities;
j) financial capital/assets (imputed);
k) income of financial capital/assets;
l) the number of rooms and the size of the residence area in square meters;
m) contributions to individual private pension plans.

Adjustments to variables are kept to a minimum. In a few cases implausibly high (observed) values of unemployment allowance benefits were assigned to unemployment insurance benefits.

To guarantee consistency between demographic variables and income variables which refer to the previous year (and on which EUROMOD simulation are based), all children born between the end of the income reference period and the date of interview have been dropped from the sample. In EU-SILC 2022 there were 16 such children. No adjustments to the weights have been done.

3.3   Imputations and assumptions

3.3.1   Time period

Income and expenditure information in SILC refer to the previous calendar year, with the exception of housing costs which refer to the current monthly average as estimated by the household. As EUROMOD uses (average) monthly data as an input, **all annual incomes and expenditure are divided by twelve**. Simulations of short-term benefits (e.g., unemployment benefits) also take into account how many months particular income source was received (if

available). Note that some socio-economic variables (e.g., education, marital status) refer to the survey week.

3.3.2   Gross incomes

In the SILC data missing values have been imputed, if necessary. Most of the imputations have been done by Statistics Estonia. See the EU-SILC 2022 quality report for the imputation procedure. A few remaining imputations were done jointly by the authors and they are described in detail in the Data Requirement Document (DRD), following the templates prepared by the EUROMOD core team as closely as possible.

In the national SILC questionnaire, most income components are collected in net terms by default. Regarding wages and salaries, income from rental, income earned by children and income from self-employment, the respondent may choose if he/she wants to report net or gross amounts. All reported incomes are converted into both net and gross incomes by using algorithms deduced from tax laws by Statistics Estonia.

By default, the Eurostat version of the SILC (EU-SILC) has all values in gross terms (though at more aggregated level). The national version has (additional) detailed benefit information merged from the registries mostly available in both gross and net values. Previously, if there were no gross values, the net income variables that were merged from the EE-SILC database were converted to gross values by inverting the tax rules (backward calculations).

3.3.3   Disaggregation of harmonized variables

We have merged disaggregated benefits from the national SILC data; hence, no further disaggregation was needed.

The housing benefit variable in the EU-SILC includes the subsistence benefit (as it has a component related to housing costs) and other social assistance benefits. In EUROMOD these are reclassified as social assistance benefits. They are all non-taxable, therefore no net-to-gross imputations is needed. Subsistence benefits may include additional subsistence benefits (*täiendav toimetulekutoetus*) that are not related to formal rules but based on ad hoc decisions by local municipalities.

3.3.4   Additional imputations and net-to-gross conversions by country team

The derivation of other variables needed for EUROMOD is described in the DRDs. Generally, the standard approach provided by the EUROMOD core team was applied. Imputations specific to the Estonian SILC were as follows.

Financial capital asset variable was imputed based on national SILC (detailed information regarding received deposit interest, dividends and interest on bonds) and external data on interest rates (in 2021 the deposit interest rate was 0.3% and the nominal yield of bonds 7.18%). The nominal yield of stocks paying out dividends was assumed to be 2.48% based on Tallinn Stock market dividends and stock values in 2021.

Parental allowance for large families (*bcclg*) was imputed and separate from a partially aggregated variable in the national SILC. From July 2017 this became allowance for families with many children (before the condition was 7+ children, now 3+ children) and therefore in 2017 there were two schemes. Imputation was based on number of eligible children in the household and fixed amount of benefit per month (average allowance for families with 3-6 children was €145.9, average allowance for families with 7+ children was €287.3, taking into account that in 2017 there

were two allowances an indicator €146.9 was used in 2017). National SILC for 2022 (income year 2021) provides information on actual recipients.

National SILC 2022 provides the duration of registered unemployment, which was used to proxy the combined receipt of unemployment benefits (*bunmy*), while the number of months in receipt of unemployment insurance benefit and unemployment allowance had to be imputed. In the case of unemployment allowance, the length of receipt (*bunncmy*) was assigned according to the daily rate and annual amount of allowance and the number of months in receipt of unemployment insurance benefit (*bunctmy*) was derived as the difference between the period of registered unemployment and the length of receipt of unemployment allowance.

The size of flat/house in square meters, which are needed for simulation of the subsistence benefit, were merged from the national SILC. Note that the distribution of number of rooms in EU-SILC differs considerably from the national variable and therefore, both variables are kept in dataset.

Participation in the funded pension scheme

Participation in the mandatory funded pension scheme (the second pillar) was, until 2021, compulsory for new entrants to the labour market (born 1983 or later), but voluntary for employees who were in the labour market in 2002 when the scheme was introduced. Cohorts born in 1941 or before (i.e., those beyond the pension age at the time of the reform) were not allowed to join the scheme. Participation in the funded pension scheme is automatic from the age of 18, however, since 2021 it is possible to opt out.

We do not have information on the participation in the funded pension scheme in the EU version of the SILC, but we have the information on participation of those employed in the national version of the SILC, which was merged with the EU-SILC data set (*lpm*). The participation decision was simulated for unemployed and inactive people, applying the same proportions by age and gender groups. More specifically, a uniformly distributed random number from the 0-1 interval was drawn (in Stata with a fixed seed number): if the resulting number was lower than the corresponding share of contributors the person was assigned a value 1, otherwise value 0.

In SILC 2019, the continuation of contributions to the funded pension scheme in 2010-11 (variable *lpm01*), and an increase in contributions in 2014-17 (variable *lpm02*) were simulated by randomly assigning people into these groups. The proportions by age, gender and labour earnings decile were derived from the microdata of the Estonian National Social Insurance Board. In SILC 2020, 2021 and 2022, the variables *lpm01* and *lmp02* are no longer available and are not simulated.

Table 3.2. Distribution of people according to their decision to increase contributions to the second pillar and the contribution rates (in parentheses)

Did the person increase contributions in 2014-2017? (*lpm02*) Did the person continue paying own contributions in 2010-2011? (*lpm01*)	Yes	No	Total
Yes	40,410 (3+6)	179,943 (2+6)	220,353
No	65,730 (3+6)	359,929 (2+4)	425,659
Total	106,140	539,872	646,012

Source: Ministry of Finance.

Based on the Estonian Pension Register anonymous individual level data that cover all people in Estonia that have any social tax record since 1999, we calculated the proportion of people who continued their contributions in each group of age, gender and labour earnings decile in 2011.

The resulting proportions are described in Figure 3. The proportion of those who continued contributions in 2010 and increased in 2014-2015 is underestimated with SILC data. It means that for employed people net disposable income is slightly oversimulated.

Figure 3. Simulated and actual proportions of population in EU-SILC data and registry data
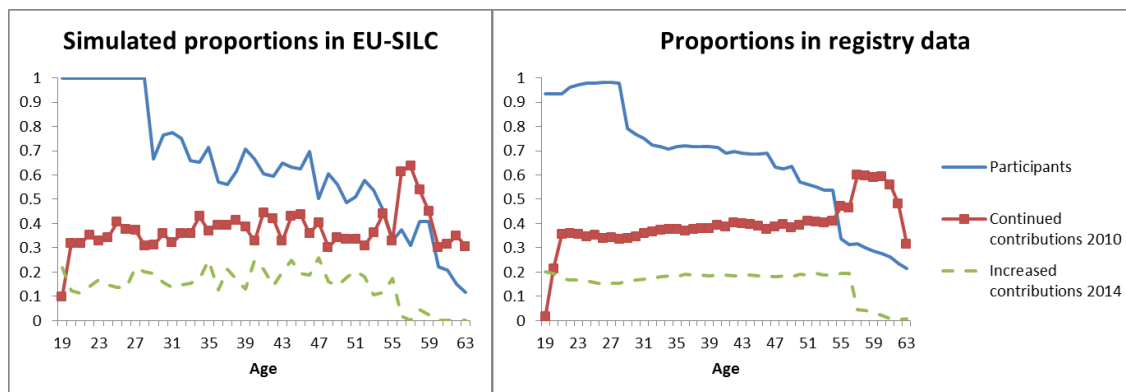
Source: Estonian National Social Insurance Board microdata, own simulations.

3.4 Updating

To account for any mismatch between the income reference period 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 income reference year of the data and the year of the simulated tax-benefit system. Updating factors for market incomes are generally based on changes in the average value of an income component between the income reference year of the data and the policy year. In case no data were available, official forecasts of prices or average wages is used. Benefit and tax variables (public pensions, in particular) are uprated on the basis of statutory indexation to capture policy effects and changes in average values (or movements in prices) are used as alternatives when such information is not available. For detailed information about the construction of each updating factor as well as the sources that have been used, see Annex 1 (also includes information on the uprating of registry-based variables not in EMSD).

As a rule, updating factors are provided for all income components present in the input dataset. Note however that in the case of income components also simulated in the model, the simulated amounts are used in the baseline rather than uprated original variables in the dataset. This facilitates the use of the model in cases when the user wishes to disregard a particular simulated variable.

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-HBS. The semi-parametric method implemented for the imputation follows the methodology developed by Akoğuz et al (2020).

Table 3.3 summarizes the major features of the most recent database used to be run with the policy systems of 2021-2024.

Table 3.3. Extended EUROMOD database description

Extended EUROMOD database for the simulation of consumption taxes	SILC 2022 – Income year 2021 – Expenditures from HBS 2015
EUROMOD database	EE_2022_f1_2015_e3
Year of collection (HBS) and source	HBS 2015 – EU
Year of collection (SILC) and source	SILC 2022 – EU
Coverage and sample size	Same as EE_2022_f1
Share of households with negative incomes excluded from the matching procedure	0.24%

z: source of expenditure shares data with u (EU-HBS), e (EMSD) n (national HBS), a (admin data)
M: version of matching (correlative number), f: source of SILC dataset (National, UDB, ESMD): a, b or c
N: version of SILC processing (correlative number)

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 Estonia, data EE_2022_x, 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 3.4 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 Estonia.

Table 3.4. Expenditure coverage of Extended EM Input files

COICOP group	HBS 2015 – Extended EM Input 2015	HBS 2015 – Extended EM Input 2022
CP01	110.0	110.0
CP02	115.1	115.1
CP03	99.3	99.3
CP04	99.9	99.9
CP05	115.3	115.3
CP06	106.8	106.8
CP07	114.3	114.3
CP08	108.9	108.9
CP09	115.5	115.5
CP10	89.7	89.7
CP11	104.2	104.2
CP12	112.0	112.0

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 annual amounts are shown in Annex 3. Both market incomes and non-simulated taxes and benefits in the input dataset as well as simulated taxes and benefits are validated against external official data. The main discrepancies between EUROMOD results and external benchmarks are discussed in the following subsections. Factors that may explain the observed differences are also discussed. In addition, Annex 2 presents and discusses the estimates of policy effects in 2023-2024.

4.1.1 Components of disposable income

The definition of disposable income in EUROMOD follows closely EU-SILC definition. The minor differences are outlined in the following table. Note that disposable income in EUROMOD is constructed using simulated components whenever possible and, hence, the values of two disposable income concepts are not identical.

Table 4.1. Components of disposable income

	EUROMOD 2021	EMSD 2022
	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	+	+
Unemployment benefits	+	+
Old-age benefits	+	+
Survivor' benefits	+	+
Sickness benefits	+	+
Disability benefits	+	+
Education-related allowances	+	+
Income from rental of a property or land	+	+
Family/children related allowances	+	+
Social exclusion not elsewhere classified	+	+
Housing allowances	+	+
Regular inter-household cash transfer received	+	+
Interests, dividends, etc.	+	+
Income received by people aged under 16	+	+
Regular taxes on wealth	-	-
Regular inter-household cash transfer paid	-	-
Tax on income and social contributions	-	-
Repayments/receipts for tax adjustment	+	+

Note: repayments/receipts for tax adjustment in EMSD can also relate to income received before the income reference period, while the simulated variable in EUROMOD refers strictly to the income reference period.

4.1.2   Validation of market incomes

Macrovalidation tables are included in Annex 3. Simulations are done using policy rules valid as of 30th June – to simulate instead (major) policy changes throughout the year of interest, FYA policy extension would need to be activated.

The number of individuals receiving employment income is not simulated with EUROMOD, however, the SILC data is well estimated. This is expected given that employment income information in SILC is also register-based. The number of people with income from registered self-employment (registry-based), a variable also not simulated, is overestimated compared to data from income tax returns. The difference in data and external statistics might be caused by sampling variation.

The total number of people receiving private pension is slightly underestimated in 2021 (ratio 0.91), but largely overestimated in 2022 (ratio 3.48) and in 2023 (ratio 6.55). The number of individuals receiving payments from II pillar of pension is similarly underestimated in 2021 (93% of coverage), but largely overestimated in 2022 (349% of coverage) and 2023 (670% of coverage), the number is overestimated. The number of people receiving payments from the III is also overestimated. Private pensions are not simulated with EUROMOD. The overestimation of the number of people receiving payments from II pillar of pension in later years can be attributed to the pension reform implemented in 2021. This reform transitioned the mandatory funded pension scheme (II pillar) from compulsory to voluntary membership. The number of

people withdrawing their funds from II pillar pensions was significantly higher the year of the reform compared to latter years of 2022 and 2023. Since the data is based on 2022 incomes, the number of II pillar pension recipients is overestimated in 2022 and 2023. Furthermore, the overestimation of individuals receiving III pillar payments may be due to sampling fluctuations. Notably, external statistics treat the II and III pillar pension recipients as distinct, but it is possible for a single person to receive both types of pensions.

When looking at the validation of the amounts of the above discussed income sources, these largely mirror the proportions exhibited by their relative recipients.

4.1.3   Validation of taxes and social insurance contributions

Aggregate amounts of withheld personal income tax is slightly overestimated and so are both components of social tax, resulting from higher aggregate employment income (tax base) than external estimates. UI contributions from employees and employers are both oversimulated. The amount of total pension contributions are also overestimated (1.23 in 2021).

The aggregate amount of the land tax is underrepresented, adding up to only 30% of the revenues, but there is a comparability issue, as registry data include also land tax revenues from enterprise sector.

4.1.4   Validation of benefits

Among public pensions (old-age pensions, disability pensions, survivors' pensions) the coverage is lowest for the number of survivor pensioners (65% in 2023), this is likely affected by the small number of observations. The number of old-age pension recipients is quite well estimated (94% in 2023). The number of work ability allowance recipients is slightly overestimated (119%) in 2023, while the number of disability pension recipients is highly overestimated by 330% in 2023. Work ability allowance gradually substitutes disability pension and therefore, disability pensions are largely overestimated. Starting this year, the accuracy of estimating the number of recipients of disability pensions has significantly improved by incorporating registry-based variables for disability pension and work ability allowance to the input dataset. In the previous year, disability pension recipients were overestimated by around 11 times, because the variable for disability pension recipients also included the people who received both work ability allowance and disability pension during the year.

The number of maternity benefit recipients is overestimated, as well as the expenditure on maternity benefits. The overestimation might be due to sampling variation. The number of recipients of sickness benefits are broadly in line with external statistics although alternating between over and under simulation. The number of recipients of severance pay similarly alternate between being over simulated and under simulated while remaining relative in line with external statistics.

There is unfortunately no data on the total amount of child allowances per household, however the total expenditure on child allowances is simulated almost exactly (98% in 2023), which is expected as these only depend on the age and number of children. The number of childbirth allowance recipients is overestimated, as well as the annual expenditure on childbirth allowance (167% in 2023). This might be due to a sampling variation. The number of childcare allowance recipients is slightly overestimated, and so is its total expenditure (134%) in 2023.

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 that same year.
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 expenditures aggregated amount from EUROMOD simulations with National Account (NA) external statistics as reported by EUROSTAT. Coicop level 1 categories perform quite good when looking at "01 – food and non-alcoholic beverages", "04 – housing, water and fuel (exc. Imputed rent)", "05 - Furnishings, household equipment", "06 – health", "07 – transport", "09 – recreation and culture". The remaining categories instead are generally undersimulated and this is probably due to under-reporting of those categories in original data (e.g. tobacco and alcohol). On the other hand, "08 – communications" and "10 – education" are quite oversimulated.

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 Estonia revenue from VAT are undersimulated. The simulation captures about 50 of the revenue. Validation of consumption taxes at the specific product level is currently not available due to the lack of external statistics.

4.2 Income distribution

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

4.2.1 Income inequality

EUROMOD produces a very accurate distribution of income, with lower deciles incomes slightly overestimated (by 1-3%). The resulting Gini index is an exact ratio compared to the original dataset, however the ratio of quintiles (S80/S20) is 3% lower.

The median and mean income are 1% and 9% lower in the simulated data than in the original dataset in 2023.

4.2.2 Poverty rates

The simulated relative poverty rates in 2023 are slightly underestimated compared to those calculated with the original dataset. The largest discrepancies arise when the total poverty rate is evaluated at the 40% (ratio of poverty rates – 0.87) and at the 50% (ratio of poverty rates – 0.89) of median household disposable income. In other cases the discrepancies are smaller.

The poverty rates by age group are mainly underestimated, the most for the age group 0-15 (ratio 0.84).

4.3   Summary of "health warnings"

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

- The sample is relatively small. Care should be taken in interpreting results for small sub-groups.

- Estonian model assumes full tax compliance.

- Direct taxes, pension and health contributions, and unemployment insurance contributions are oversimulated by 13-21%.

- Universal family benefits are simulated relatively well and pensions are recorded in the datasets reasonably well.

- The oversimulation of the amount of subsistence benefit is partly due to annual incomes which do not allow capturing the seasonal nature of subsistence benefits. Assuming full take-up of the subsistence benefit in simulations would result in even higher income at the bottom of the income distribution compared to the original dataset. Hence, we suggest that the subsistence benefit is simulated in combination with partial take-up modelling to reduce the extent of oversimulation.

- Imputed value of financial assets is very crude.

- The simulation of monetary compensation schemes (bwkmcee_s) is triggered by the simulation of labour market transitions defined in policy TransLMA_ee. 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.

- 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.
- 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.

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ANNEX 1. UPRATING FACTORS

Table 1. Uprating factors

Variable	Variable label	Update factor	Factor reference name
afc	Assets: financial capital	CPI	$f_cpi
afcbd	Assets : financial capital : bonds	CPI	$f_cpi
afcsa	Assets : financial capital : savings accounts	CPI	$f_cpi
afcsh	Assets : financial capital : shares	CPI	$f_cpi
bedet	Benefit/pension : education : tertiary education	No uprating	1
bhtmt	Benefit/pension : heating : means-tested	No uprating	1
bsaxp	Benefit/pension : social assistance : extra pay	No uprating	1
lpmsy	Labour market : pension membership : starting year	No uprating	1
lpmcy	Labour market : pension membership : contributing year	No uprating	1
yemxp	Income : employment : extra pay	No uprating	1
yls	Income : lump sum	No uprating	1
bedot	Benefit/pension : education : other	No uprating	1
bsa00	Benefit/pension : social assistance: basic	No uprating	1
bsach	Benefit/pension : social assistance : child	Statutory indexation (2013-2017), zero otherwise	$f_bsach and 0
bsals	Benefit/pension : social assistance : lump-sum	No uprating	1
bsape	Benefit/pension : social assistance : pensioner	Statutory indexation (2017-2021), zero otherwise	$f_bsape and 0
kivho	In kind: imputed value: housing	No uprating	1
yds	Income: disposable	No uprating	1
ydses_o	Income: disposable: equivalised: original SILC	No uprating	1
yprro	Income : property: royalties	CPI	$f_cpi
yprho	Income : property: housing	CPI housing expenditure index	$f_xhcot
xed	Expenditure: education	CPI	$f_cpi
xed00	Expenditure: education	Estonian Tax and Customs Board: Average declared education expenses	$f_xed
xhl00	Expenditure: health	CPI	$f_cpi
xcd	Expenditure: charitable donations	CPI	$f_cpi
ypp02	Income : private pension : 02	Average hourly wage	$f_hourly_wage
ypp03	Income : private pension : 03	Average hourly wage	$f_hourly_wage
yppla	Income : private pension : life insurance	Average hourly wage	$f_hourly_wage
ypppa02	Income : private pension : in pension age : 02	Average hourly wage	$f_hourly_wage
ypppb02	Income : private pension : before pension age : 02	Average hourly wage	$f_hourly_wage
ypppa03	Income : private pension : in pension age : 03	Average hourly wage	$f_hourly_wage
ypppb03	Income : private pension : before pension age : 03	Average hourly wage	$f_hourly_wage
bchba	Benefit/pension: child: birth/adoption	Statutory indexation	$f_bchba
bch00	Benefit/pension: child: basic	Statutory indexation	$f_bch00
bcc00	Benefit/pension: child care: basic	Statutory indexation	$f_bcc00

Variable	Variable label	Update factor	Factor reference name
bcclg	Benefit/pension: child care: large family	Statutory indexation	$f_bcclg
bchlp	Benefit/pension: child: lone parent	Statutory indexation	$f_bchlp
bunnc	Benefit: unemployment : non-contributory	Statutory indexation	$f_bunnc
buntr	Benefit: unemployment : training	Statutory indexation	$f_buntr
poa00	Benefit/pension : old age: main	Statutory indexation (alternatively growth of average pension)	$f_ipens (or $f_poa00)
pdi	Benefit/pension : disability	Statutory indexation (alternatively growth of average pension)	$f_ipens (or $f_pdi)
psu	Benefit/pension : survivors	Statutory indexation (alternatively growth of average pension)	$f_ipens (or $f_psu)
bdiit	Benefit/pension : disability : integration allowance	No uprating	1
bdirw	Benefit/pension : disability : return to work	Statutory indexation (2016-2021), zero otherwise	$f_bdirw and 0
tpr	Tax : property tax	Total land tax revenues	$f_tpr
xhcmomi	Expenditure : housing cost : mortgage payment : mortgage interest	Estonian Tax and Customs Board: Average declared mortgage interests amount	$f_xhcmomi
xhcrt	Expenditure : housing cost : rent	Average rent in Tallinn	$f_xhcrt
xhcot	Expenditure : housing cost : other	CPI housing expenditure index	$f_xhcot
yiydv	Income : investment: dividends	Nominal GDP, mln EUR	$f_gdp
yiyit	Income : investment: interests	Average annual declared income from other sources, EUR	$f_yiyit_new
yiyot	Income : investment: other	Nominal GDP, mln EUR	$f_gdp
yprrt	Income : property: rent	Average rent in Tallinn	$f_xhcrt
yem_a	Income : employment : add on	Average hourly wage	$f_hourly_wage
yem18_a	Income : employment : add on	Average hourly wage	$f_hourly_wage
yem19_a	Income : employment : add on	Average hourly wage	$f_hourly_wage
yem20_a	Income : employment : add on	Average hourly wage	$f_hourly_wage
yem00	Income : employment: main	Average hourly wage	$f_hourly_wage
yemabnt	Income : employment: abroad : not taxable	Average hourly wage	$f_hourly_wage
yemabtx	Income : employment: abroad : taxable	Average hourly wage	$f_hourly_wage
yseab	Income : self employment : abroad	Average hourly wage	$f_hourly_wage
yseag	Income : self employment : agriculture	Average hourly wage	$f_hourly_wage
ysebs	Income : self employment : business	Average hourly wage	$f_hourly_wage
ysera	Income : self employment : registered activity	Average hourly wage	$f_hourly_wage
ysena	Income : self employment : non-registered activity	Average hourly wage	$f_hourly_wage
yseil	Income : self employment : intellectual activities	Average hourly wage	$f_hourly_wage
yot	Income : other	Average hourly wage	$f_hourly_wage
xmp	Expenditure : maintenance payment	Average hourly wage	$f_hourly_wage
ypt	Income : private transfers	Average hourly wage	$f_hourly_wage
yptmptx	Income : private transfers : maintenance payment : taxable	Average hourly wage	$f_hourly_wage

Variable	Variable label	Update factor	Factor reference name
yptmpnt	Income : private transfers : maintenance payment : non-taxable	Average hourly wage	$f_hourly_wage
yunsv01	Income : unemployment : severance pay : 01	Average hourly wage	$f_hourly_wage
yunsv02	Income : unemployment : severance pay : 02	Average hourly wage	$f_hourly_wage
yunsv03	Income : unemployment : severance pay : 03	Average hourly wage	$f_hourly_wage
yivwg	Income : imputed value: wage	Average hourly wage	$f_hourly_wage
ymwdt	Income : monthly wage : date of interview	Average hourly wage	$f_hourly_wage
kfb	In kind: fringe benefits	Average hourly wage	$f_hourly_wage
kfbcc	In kind: fringe benefits: company car	Average hourly wage	$f_hourly_wage
tpceepi	Tax : comp prvt ctrb : employee : pension insurance	Average hourly wage	$f_hourly_wage
tad	Tax: repayments	No uprating	1
tis	Tax: income tax and social insurance contributions	No uprating	1
tinrf	Tax: income tax : refund	No uprating (2016), zero otherwise	1 and 0
tscse	Tax : sic : self-employed	No uprating	1
tin	Tax: income tax	No uprating	1
tinwh00	Tax: income tax : withholding : main	No uprating	1
tinwhab	Tax: income tax : withholding : abroad	No uprating	1
tscee	Tax : sic : employee	No uprating	1
tscer	Tax : sic : employer	No uprating	1
tsceeui	Tax : sic : employee : unemployment insurance	No uprating	1
tscerui	Tax : sic : employer : unemployment insurance	No uprating	1
xpp	Expenditure: private pensions	Average hourly wage	$f_hourly_wage
bhl	Benefit/pension : health	Average hourly wage last year	$f_hourly_wage_lagged
bmact	Benefit/pension : maternity: contributory	Average hourly wage last year	$f_hourly_wage_lagged
bmapr	Benefit/pension : maternity: pregnancy	Average hourly wage last year	$f_hourly_wage_lagged
bmactmh	Benefit/pension : maternity : contributory : mother	Average hourly wage last year	$f_hourly_wage_lagged
bunct	Benefit/pension : unemployment: contributory	Average hourly wage last year	$f_hourly_wage_lagged
yempv	Income : employment: previous	Average hourly wage last year	$f_hourly_wage_lagged
yempv_a	Income : employment : previous : add on	Average hourly wage last year	$f_hourly_wage_lagged
bunot	Benefit: unemployment : other	No uprating	1
poaab	Pension : old age: abroad	No uprating	1
bchab	Benefit/pension: child: abroad	No uprating	1
bmaab	Benefit/pension: maternity: abroad	No uprating	1
bfafp	Benefit/pension : family: foster parent	No uprating	1
bchot	Benefit/pension: child: other	No uprating	1
bcham	Benefit/pension: child: unpaid alimony	No uprating	1
yse	Income : self employment	Aggregate	
ypr	Income : property	Aggregate	

Variable	Variable label	Update factor	Factor reference name
yptmp	Income : private transfers : maintenance payment :	Aggregate	
bun	Benefit/pension : unemployment	Aggregate	
bch	Benefit/pension: child:	Aggregate	
bfa	Benefit/pension : family	Aggregate	
bsa	Benefit/pension : social assistance	Aggregate	
xhc	Expenditure : housing cost	Aggregate	
yiy	Income : investment	Aggregate	
yunsv	Income: unemployment: severance pay	Aggregate	
yem	Income : employment	Average hourly wage by sector	$f_hourly_wage_lindi_1 $f_hourly_wage_lindi_2 $f_hourly_wage_lindi_3 $f_hourly_wage_lindi_4 $f_hourly_wage_lindi_5 $f_hourly_wage_lindi_6 $f_hourly_wage_lindi_7 $f_hourly_wage_lindi_8 $f_hourly_wage_lindi_9 $f_hourly_wage_lindi_10 $f_hourly_wage_lindi_11 $f_hourly_wage_lindi_12 $f_hourly_wage_lagged $f_hourly_wage
ypp	Income : private pension	Aggregate	
bed	Benefit/pension : education	Aggregate	

Note: non-simulated variables only used for validation are (generally) not uprated.

Table 2. Sources of update factors

Factor ref. name	Name	Source
$f_cpi	Consumer price index	Statistics Estonia, online database, table IA001; 2024 forecast by Ministry of Finance
$f_xhcot	CPI housing expenditure index	Statistics Estonia, online database, table IA001; 2024 CPI forecast by Ministry of Finance
$f_gdp	Nominal GDP, mln EUR	Statistics Estonia, online database, table RAA0012; 2024 forecast by Ministry of Finance
$f_yem	Average monthly salary, EUR	Statistics Estonia, online database, table PA005; 2024 forecast by Ministry of Finance
$f_yemlag1	Average monthly salary last year	see $f_yem
$f_yiydv	Avg annual declared income from stocks, EUR	Tax reports (row 6.1); 2024 wage growth
$f_yiyit	Avg annual declared income from other sources, EUR	Tax reports (until 2018 row 7.1, 2019-2022 row 5.6); unavailable from 2023
$f_yiyot	Avg annual declared income from other assets, EUR	Tax reports (row 6.3); 2024 wage growth
$f_yiyit_new	Interest rates of time deposits of households	Bank of Estonia, Statistical indicators, Table 3.7.5 Interest rates of time deposits of non-financial corporations and households by maturity and currency; 2024 Jan-August
$f_xhcrt	Average monthly rent payment in Tallinn, EUR per m2	2006-2009: Statistics Estonia, online database, table KV131, average rent in Tallinn in a two-living-room apartment; 2010 onwards average rent per m2 in Tallinn according to kv.ee as of June
$f_xhcmomi	Average annual mortgage interest payment, EUR	Estonian Tax and Customs Board, average declared mortgage interests per declaration; 2024 kept costant
$f_tpr	Total annual land tax revenues, thous. EUR	Statistics Estonia, online database, table RR02, land tax revenues; 2024 kept constant
$f_poa00, $f_pdi, $f_psu	Average monthly pension (end year), EUR	Statistics Estonia, online database, table SK110: Riiklik pensionikindlustus; 2024 statutory indexation
$f_ipens	Statutory indexation of public pensions	Government decrees
$f_bchba, $f_bch00, $f_bcc00, $f_bcclg, $f_bchlp, $f_bunnc, $f_buntr, $f_bsach, $f_bdirw, $f_bsape, $f_bdiit	Statutory indexation	Government degrees
$f_xed	Average paid training expenses	Estonian Tax and Customs Board, average declared

		training expenses per declaration. 2024 kept constant
$f_hourly_wage	Average hourly wage, all	Eurostat
$f_hourly_wage_lindi_1, $f_hourly_wage_lindi_2, $f_hourly_wage_lindi_3, $f_hourly_wage_lindi_4, $f_hourly_wage_lindi_5, $f_hourly_wage_lindi_6, $f_hourly_wage_lindi_7, $f_hourly_wage_lindi_8, $f_hourly_wage_lindi_9, $f_hourly_wage_lindi_10, $f_hourly_wage_lindi_11, $f_hourly_wage_lindi_12,	Average hourly wage by sector	Eurostat
$f_hourly_wage_lagged	Average hourly wage, all, lagged (1)	Eurostat

ANNEX 2. POLICY EFFECTS IN 2023-2024

Preliminary: Indexation based on projected HICP for 2024[12]

Table 1 and Figure 1 show the effect of 2024 policies on mean equivalised household disposable income by income component and income decile group. The effect is estimated as a difference between simulated household net income under the 2024 tax-benefit policies (deflating monetary parameters by projected Harmonized Index of Consumer Prices, HICP) and net incomes simulated under 2023 policies, as a percentage of mean equivalised household disposable income in 2023.

Compared to 2023 policies, the deflated 2024 policies decreased mean household income by 0.02%. First three income decile groups gained on average, but incomes fell among others. Income gains are mainly related to the indexation of pensions. The most significant income growth was observed in the lower income decile groups, reaching 3.19% in the lowest decile and 3.18% in the second lowest decile. The decline in disposable income was less than 1% in middle- and higher-income groups (4-10 deciles).

The main factor contributing to income growth was the increase in pensions, which increased by 10.6%[13] in 2023 compared to the inflation of 3.3%. The impact of pension increases was particularly pronounced in the lower decile groups, where a higher proportion of individuals were pension recipients. Benefits for the unemployed had a relatively minor overall impact, increasing incomes by 0.01% across all income groups.

The changes in the personal income tax legislation in 2024, which abolished the tax allowance for families, the tax allowance for spouse and the tax allowance for the mortgage interest (see section 2.7.3), but also that the basic tax allowance was kept nominally constant (€654) decreased mean household income by 0.64%. Incomes also decreased due to changes in non-means-tested benefits (-0.21%). The most substantial household income loss resulted from a decrease of the benefit for families with many children (-0.52%). If the subsidies were increased in 2023 (€850 vs. €400), in 2024 they were decreased again (€600). A more pronounced negative impact was on middle income groups. The bottom decile group also had a negative effect from subsistence benefit (-0.053%) as the income limit did not change.

Among non-means-tested benefits, income gains were mainly due to higher parental benefits (0.122%). Increases in parental benefits are due to higher (reference) wages and an increase in minimum wage, which also provides the floor for parental benefit.

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[12] Results based on the final HICP will appear in the annual EUROMOD report Effects of tax-benefit policy changes across the income distributions of the EU-28 countries: 2023-24 (updated).

[13] The indexation of public pensions is largely based on the change in total pension social insurance contributions paid in the previous calendar year.

Table 1: Policy effects in 2023-2024, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	3.36	-0.08	0.27	0.00	-0.05	-0.31	3.19
2	0.00	3.87	-0.07	-0.14	0.00	-0.02	-0.46	3.18
3	0.00	2.60	-0.03	-0.25	0.00	-0.01	-0.70	1.61
4	0.00	1.19	-0.01	-0.26	0.00	-0.01	-0.93	-0.01
5	0.00	0.72	0.00	-0.59	0.00	-0.01	-1.07	-0.95
6	0.00	0.64	0.00	-0.37	0.00	0.00	-0.88	-0.61
7	0.00	0.49	0.00	-0.33	0.00	0.00	-0.79	-0.63
8	0.00	0.30	0.00	-0.28	0.00	0.00	-0.73	-0.71
9	0.00	0.28	0.00	-0.04	0.00	0.00	-0.53	-0.29
10	0.00	0.29	0.00	-0.11	0.00	0.00	-0.33	-0.15
Total	0.00	0.84	-0.01	-0.21	0.00	0.00	-0.64	-0.02

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2023, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2024 policies by projected Harmonized Index of Consumer Prices (HICP), i.e. 1.03335561497326.

Figure 1: Policy effects in 2023-2024, using the CPI-indexation, %
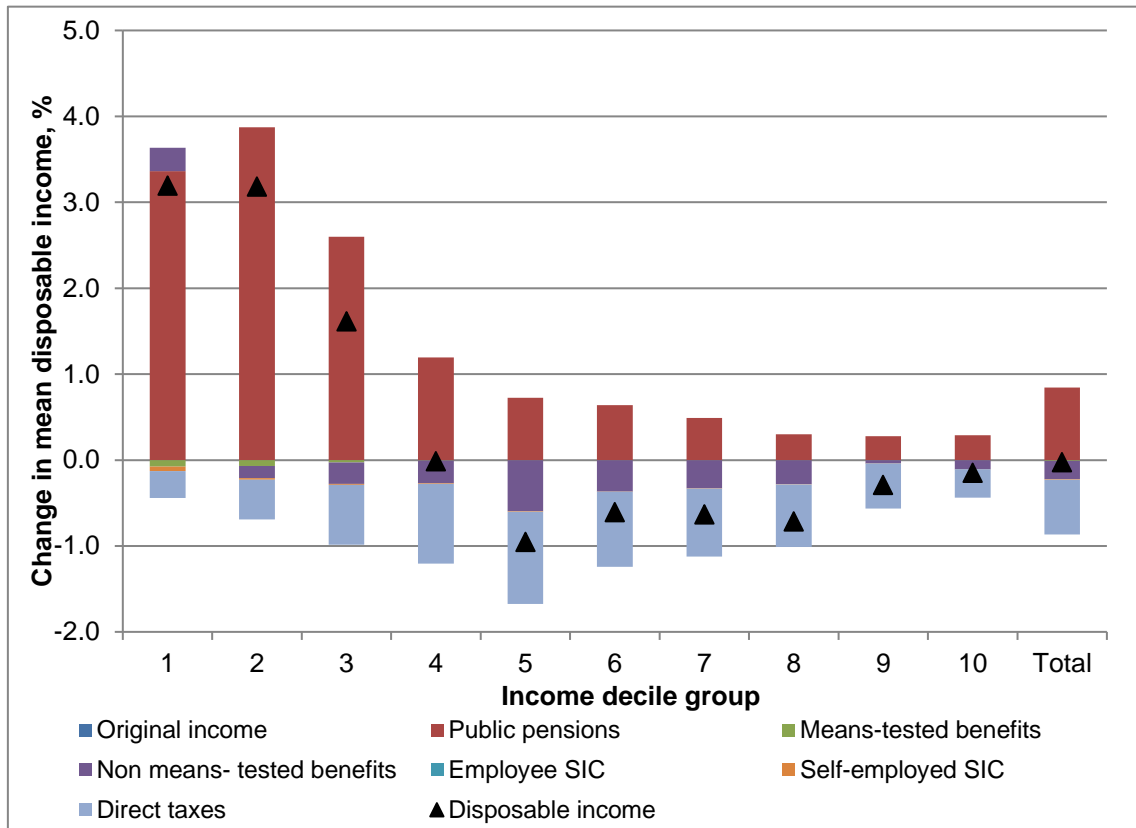
ANNEX 3. VALIDATION TABLES

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)													
employment income (domestic) (yem00)	N	741	741	741	741	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
non-taxable employment income (abroad) (yemabnt)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
taxable employment income (abroad) (yemabtx)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from registered self-employment activities (ysera)	N	25	25	25	25	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from unregistered self-employment activities (ysena)	N	30	30	30	30	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employment income from agriculture (yseag)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employment income from other than agriculture (ysebs)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from creative activities (yseil)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employment income (abroad) (yseab)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	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)													
employment income (yem)	N	741	741	741	741	707	722	718	NaN	1.05	1.03	1.03	NaN
investment income (yiy)	N	445	445	445	448	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income of children under 16 (yot)	N	32	32	32	32	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
private pension (ypp)	N	168	168	168	168	184	60	36	NaN	0.91	2.81	4.68	NaN
housing rental income (yprho)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
royalties (yprro)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
rental income (yprrt)	N	95	95	95	95	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
private transfers received (ypt)	N	26	26	26	26	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from self-employment (yse)	N	52	52	52	52	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
alimony payments (alimendid) (xmp)	N	37	37	37	37	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
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)													
Income from registered self-employment activities (ysera)	N	25	25	25	25	13	13	12	NaN	1.91	1.91	2.07	NaN
Payments from II pillar (ypp02)	N	162	162	162	162	180	57	33	NaN	0.90	2.84	4.90	NaN
Payments from III pillar (ypp03)	N	10	10	10	10	4	3	3	NaN	2.52	3.36	3.36	NaN
Property income (ypr)	N	95	95	95	95	39	42	45	NaN	2.42	2.25	2.10	NaN
Interest income (yiyit)	N	445	445	445	448	280	321	427	NaN	1.59	1.38	1.04	NaN

Continued...

	Source	Comments
Earnings (ils_earns)		
employment income (domestic) (yem00)	-	-
non-taxable employment income (abroad) (yemabnt)	-	-
taxable employment income (abroad) (yemabtx)	-	-
income from registered self-employment activities (ysera)	-	-
income from unregistered self-employment activities (ysena)	-	-
self-employment income from agriculture (yseag)	-	-
self-employment income from other than agriculture (ysebs)	-	-
income from creative activities (yseil)	-	-
self-employment income (abroad) (yseab)	-	-
covid-19 compensation paid by the firm (yemmc_s)	-	-
Other original income (ils_origy - ils_earns)		
employment income (yem)	N: RaM (TSD vormid); S: ESA (RAA0024)	-
investment income (yiy)	-	-
income of children under 16 (yot)	-	-
private pension (ypp)	Ministry of Finance, Tax and Customs Board (FIDEK 5.2)	-

Continued...

	Source	Comments
housing rental income (yprho)	-	-
royalties (yprro)	-	-
rental income (yprrt)	-	-
private transfers received (ypt)	-	-
income from self-employment (yse)	-	-
alimony payments (alimendid) (xmp)	-	-
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)		
Income from registered self-employment activities (ysera)	Tax and Customs Board (FIDEK E-form, row 7, pos. revenue)	-
Payments from II pillar (ypp02)	Ministry of Finance	-
Payments from III pillar (ypp03)	Tax and Customs Board (FIDEK 5.2)	-
Property income (ypr)	Tax and Customs Board (FIDEK 5.4)	-
Interest income (yiyit)	Tax and Customs Board (FIDEK 5.1, 8.1)	-

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)													
employment income (domestic) (yem00)	N	11,932	12,902	13,884	14,650	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
non-taxable employment income (abroad) (yemabnt)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
taxable employment income (abroad) (yemabtx)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from registered self-employment activities (ysera)	N	124	134	145	153	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from unregistered self-employment activities (ysena)	N	78	84	91	96	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employment income from agriculture (yseag)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employment income from other than agriculture (ysebs)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from creative activities (yseil)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employment income (abroad) (yseab)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	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)													
employment income (yem)	N	11,932	12,902	13,884	14,650	11,328	12,889	14,236	NaN	1.05	1.00	0.98	NaN
investment income (yiy)	N	461	468	484	504	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income of children under 16 (yot)	N	27	29	32	33	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
private pension (ypp)	N	1,570	1,697	1,827	1,927	1,663	488	279	NaN	0.94	3.48	6.55	NaN
housing rental income (yprho)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
royalties (yprro)	N	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
rental income (yprrt)	N	116	146	141	140	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
private transfers received (ypt)	N	65	70	75	79	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
income from self-employment (yse)	N	202	219	235	248	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
alimony payments (alimendid) (xmp)	N	108	117	126	133	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
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)													
Income from registered self-employment activities (ysera)	N	124	134	145	153	85	85	85	NaN	1.46	1.58	1.70	NaN
Payments from II pillar (ypp02)	N	1,532	1,656	1,782	1,881	1,639	475	266	NaN	0.93	3.49	6.70	NaN
Payments from III pillar (ypp03)	N	38	41	44	47	24	13	14	NaN	1.59	3.17	3.16	NaN
Property income (ypr)	N	116	146	141	140	86	107	125	NaN	1.35	1.36	1.12	NaN
Interest income (yiyit)	N	461	468	484	504	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)																					
(tin_s)	Y	842	868	758	777	0	0	0	0	0.00	0.00	0.00	0.00	699	730	726	NaN	1.20	1.19	1.04	NaN
(tinrf_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
land tax (maamaks) (tpr)	N	230	230	230	230	230	230	230	230	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Employee Social Insurance Contributions (ils_sicee)																					
employee SIC: unemployment (tsceeui_s)	Y	666	666	666	666	0	0	0	0	0.00	0.00	0.00	0.00	651	670	664	NaN	1.02	0.99	1.00	NaN
employee SIC: funded pension contribution (tpceepi_s)	Y	601	488	488	488	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Self-employed Social Insurance Contributions (ils_sicse)																					
self-employed pension SIC transfer (ttfsepi_s)	Y	8	7	7	7	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employed SIC: funded pension contribution (tpcsepi_s)	Y	7	7	7	7	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employed SIC: pension (tscsepi_s)	Y	15	15	15	15	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employed SIC: health (tscsehl_s)	Y	15	15	15	15	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Employer Social Insurance Contributions (ils_sicer)																					
employer pension SIC transfer (ttferpi_s)	Y	601	488	488	488	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
employer SIC: pension (tscerpi_s)	Y	741	741	741	741	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
employer SIC: health (tscerhl_s)	Y	741	741	741	741	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
employer SIC: unemployment (tscerui_s)	Y	741	741	741	741	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Credited Contributions (ils_sicct)																					
credited contributions: pension (1st pillar) (tscctpi_s)	Y	69	63	65	64	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
credited contributions: pension (2nd pillar) (tpcctpi_s)	Y	47	37	37	37	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
credited contributions: health (tsccthl_s)	Y	127	122	124	123	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other Contributions (ils_sicot)																					

	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
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)																					
Total pension part of the social tax (il_soctaxpen)	N	763	763	763	763	763	763	763	763	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Total health part of the social tax (il_soctaxhl)	N	770	769	770	769	770	770	770	770	1.00	1.00	1.00	1.00	637	649	639	NaN	1.21	1.18	1.20	NaN
Personal income tax (withheld) (tinwh_s)	Y	874	893	816	825	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Total unemployment insurance contributions (il_sicui)	N	741	741	741	741	741	741	741	741	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Total pension contributions to the 2nd pillar (il_sicfp)	N	617	501	501	501	617	617	617	617	1.00	0.81	0.81	0.81	556	447	409	NaN	1.11	1.12	1.23	NaN

Continued...

	Source	Comments
Direct taxes (ils_tax)		
(tin_s)	N: Tax and Customs Board (FIDEK), S: Statistics Estonia (RR01, RR02)	-
(tinrf_s)	-	-
land tax (maamaks) (tpr)	ESA (RR02)	-
Employee Social Insurance Contributions (ils_sicee)		
employee SIC: unemployment (tsceeui_s)	Estonian Unemployment Insurance Fund	-
employee SIC: funded pension contribution (tpceepi_s)	-	-
Self-employed Social Insurance Contributions (ils_sicse)		
self-employed pension SIC transfer (ttfsepi_s)	-	-
self-employed SIC: funded pension contribution (tpcsepi_s)	-	-
self-employed SIC: pension (tscsepi_s)	-	-
self-employed SIC: health (tscsehl_s)	-	-
Employer Social Insurance Contributions (ils_sicer)		
employer pension SIC transfer (ttferpi_s)	-	-
employer SIC: pension (tscerpi_s)	-	-
employer SIC: health (tscerhl_s)	-	-
employer SIC: unemployment (tscerui_s)	Estonian Unemployment Insurance Fund	-

Continued...

	Source	Comments
Credited Contributions (ils_sicct)		
credited contributions: pension (1st pillar) (tscctpi_s)	-	-
credited contributions: pension (2nd pillar) (tpcctpi_s)	-	-
credited contributions: health (tsccthl_s)	-	-
Other Contributions (ils_sicot)		
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)		
Total pension part of the social tax (il_soctaxpen)	Statistics Estonia (RR01)	-
Total health part of the social tax (il_soctaxhl)	Estonian Health Insurance Fund, Statistics Estonia (RR01)	-
Personal income tax (withheld) (tinwh_s)	Tax and Customs Board (FIDEK)	-
Total unemployment insurance contributions (il_sicui)	Estonian Unemployment Insurance Fund, Statistics Estonia (RR01)	-
Total pension contributions to the 2nd pillar (il_sicfp)	Tax and Customs Board, Pensionikeskus, RaM	-

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

	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)																					
(tin_s)	Y	2,420	2,722	2,801	3,076	0	0	0	0	0.00	0.00	0.00	0.00	2,146	2,279	2,391	NaN	1.13	1.19	1.17	NaN
(tinrf_s)	Y	NaN	NaN	NaN	NaN	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
land tax (maamaks) (tpr)	N	17	17	17	17	17	17	17	17	1.00	1.00	1.00	1.00	59	59	59	NaN	0.30	0.30	0.30	NaN
Employee Social Insurance Contributions (ils_sicee)																					
employee SIC: unemployment (tsceeui_s)	Y	178	192	207	219	0	0	0	0	0.00	0.00	0.00	0.00	151	171	190	NaN	1.18	1.13	1.09	NaN
employee SIC: funded pension contribution (tpceepi_s)	Y	205	185	199	210	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Self-employed Social Insurance Contributions (ils_sicse)																					
self-employed pension SIC transfer (ttfsepi_s)	Y	2	2	2	2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employed SIC: funded pension contribution (tpcsepi_s)	Y	1	1	1	1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employed SIC: pension (tscsepi_s)	Y	17	18	20	21	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
self-employed SIC: health (tscsehl_s)	Y	12	13	14	15	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Employer Social Insurance Contributions (ils_sicer)																					
employer pension SIC transfer (ttferpi_s)	Y	411	370	398	420	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
employer SIC: pension (tscerpi_s)	Y	1,999	2,231	2,403	2,539	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
employer SIC: health (tscerhl_s)	Y	1,566	1,690	1,821	1,924	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
employer SIC: unemployment (tscerui_s)	Y	95	103	111	117	0	0	0	0	0.00	0.00	0.00	0.00	81	92	102	NaN	1.18	1.12	1.09	NaN
Credited Contributions (ils_sicct)																					
credited contributions: pension (1st pillar) (tscctpi_s)	Y	97	88	102	111	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
credited contributions: pension (2nd pillar) (tpcctpi_s)	Y	34	28	29	33	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
credited contributions: health (tsccthl_s)	Y	89	85	97	105	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other Contributions (ils_sicot)																					
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)																					

	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
Total pension part of the social tax (il_soctaxpen)	N	2,525	2,708	2,925	3,093	2,525	2,525	2,525	2,525	1.00	1.07	1.16	1.22	2,211	2,491	2,772	NaN	1.14	1.09	1.06	NaN
Total health part of the social tax (il_soctaxhl)	N	1,667	1,788	1,931	2,043	1,667	1,667	1,667	1,667	1.00	1.07	1.16	1.23	1,481	1,623	1,795	NaN	1.13	1.10	1.08	NaN
Personal income tax (withheld) (tinwh_s)	Y	2,171	2,447	2,503	2,707	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	2,277	2,400	2,526	NaN	0.95	1.02	0.99	NaN
Total unemployment insurance contributions (il_sicui)	N	273	296	318	336	273	273	273	273	1.00	1.08	1.16	1.23	230	261	291	NaN	1.19	1.13	1.09	NaN
Total pension contributions to the 2nd pillar (il_sicfp)	N	652	585	629	665	652	652	652	652	1.00	0.90	0.96	1.02	540	487	513	NaN	1.21	1.20	1.23	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)																					
old age pension (poa00)	N	299	299	299	299	299	299	299	299	1.00	1.00	1.00	1.00	317	318	319	NaN	0.94	0.94	0.94	NaN
old age pension abroad (poaab)	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
survivors' pension (toitjakaotuspension) (psu)	N	4	4	4	4	4	4	4	4	1.00	1.00	1.00	1.00	6	6	6	NaN	0.65	0.65	0.65	NaN
disability pension (invaliidsuspension) (pdi)	N	7	7	7	7	7	7	7	7	1.00	1.00	1.00	1.00	2	2	2	NaN	3.30	3.30	3.30	NaN
Means-tested benefits (ils_benmt)																					
subsistence benefit (toimetulekutoetus) (bsa00_s)	Y	10	25	20	19	8	8	8	8	1.28	3.20	2.59	2.45	10	25	20	NaN	0.99	0.99	1.00	NaN
needs-based family benefit (vajaduspõhine peretoetus) (bsach_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
pensioner's living alone allowance (üksi elava pensionäri toetus) (simulated) (bsape_s)	Y	87	87	87	87	87	87	87	87	1.00	1.00	1.00	1.00	95	96	64	NaN	0.92	0.91	1.36	NaN
Non-means-tested benefits (ils_bennt)																					
childcare allowance (lapsehooldustasu) (bcc00_s)	Y	21	14	14	14	33	33	33	33	0.65	0.42	0.43	0.43	19	11	9	NaN	1.12	1.25	1.55	NaN
allowance for families with many children (lasterikka pere toetus) (bcclg_s)	Y	22	22	25	23	27	27	27	27	0.83	0.83	0.93	0.87	23	24	26	NaN	0.96	0.92	0.96	NaN
child allowance (lapsetoetus) (bch00_s)	Y	162	162	164	164	172	172	172	172	0.94	0.94	0.95	0.95	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
child allowance abroad (bchab)	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
school allowance (koolitoetus) (bched_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
large family allowance (kolme- ja enamalapselise pere toetus) (bchlg_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
single parent child allowance (üksikvanema lapse toetus) (bchlp)	N	8	8	8	8	8	8	8	8	1.00	1.00	1.00	1.00	9	8	8	NaN	0.89	1.00	1.00	NaN
social benefits for disabled people (bdiit)	N	133	133	133	133	133	133	133	133	1.00	1.00	1.00	1.00	135	125	117	NaN	0.99	1.07	1.14	NaN
work ability allowance (töövõimetoetus) (bdirw)	N	106	106	106	106	106	106	106	106	1.00	1.00	1.00	1.00	92	91	89	NaN	1.15	1.16	1.19	NaN
scholarships and grants (bed)	N	27	27	27	27	27	27	27	27	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
sickness benefit (haigusraha) (bhl)	N	265	265	265	265	265	265	265	265	1.00	1.00	1.00	1.00	289	351	231	NaN	0.92	0.75	1.15	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
unemployment insurance benefit (töötukindlustushüvitis) (bunct_s)	Y	44	44	44	44	46	46	46	46	0.95	0.95	0.95	0.95	44	35	41	NaN	1.00	1.26	1.07	NaN
unemployment assistance benefit (töötu abiraha) (bunnc_s)	Y	25	25	25	25	29	29	29	29	0.89	0.89	0.89	0.89	32	41	42	NaN	0.79	0.62	0.60	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
unemployment retraining benefit (töötu ümberõppe stipendium) (buntr)	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
severance pay (yunsv)	N	15	15	15	15	15	15	15	15	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
severance pay: 01 (yunsv01)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	6	7	8	NaN	0.00	0.00	0.00	NaN
severance pay: 02 (yunsv02)	N	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	1	1	1	NaN	0.00	0.00	0.00	NaN
severance pay: 03 (yunsv03)	N	15	15	15	15	15	15	15	15	1.00	1.00	1.00	1.00	11	13	16	NaN	1.40	1.18	0.96	NaN
other social assistance (bsals)	N	32	32	32	32	32	32	32	32	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
maintenance allowance (bcham)	N	5	5	5	5	5	5	5	5	1.00	1.00	1.00	1.00	3	3	3	NaN	1.60	1.60	1.60	NaN
local child benefits (bchot)	N	109	109	109	109	109	109	109	109	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
foster care allowance (eestkostetava või perekonnas hooldamisel oleva lapse toetust) (bfafp)	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
one time price relief support (bsaxp_s)	Y	0	475	0	0	0	0	0	0	0.00	0.00	0.00	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
childbirth allowance (sünnitoetus) (bchba_s)	Y	15	15	15	15	15	15	15	15	1.06	1.06	1.06	1.06	13	11	11	NaN	1.19	1.40	1.40	NaN
parental benefit (vanemapalk) (bmact)	N	44	44	44	44	44	44	44	44	1.00	1.00	1.00	1.00	42	31	29	NaN	1.05	1.42	1.52	NaN
maternity benefit (sünnitushüvitis) (bmapr)	N	12	12	12	12	12	12	12	12	1.00	1.00	1.00	1.00	10	12	12	NaN	1.21	1.01	1.01	NaN
mother's parental benefit (ema vanemahüvitis) (bmactmh)	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
parental benefit abroad (bmaab)	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
maternity benefit (sünnitushüvitis) (bmapr_s)	Y	0	0	0	0	12	12	12	12	0.00	0.00	0.00	0.00	10	12	12	NaN	0.00	0.00	0.00	NaN
parental benefit (vanemapalk) (bmact_s)	Y	0	0	0	0	44	44	44	44	0.00	0.00	0.00	0.00	42	31	29	NaN	0.00	0.00	0.00	NaN
mother's parental benefit (ema vanemahüvitis) (bmactmh_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 external statistics (ils_extstat_other) (NOTE: some components are hidden!)																					
Severance pay (yunsv)	N	15	15	15	15	15	15	15	15	1.00	1.00	1.00	1.00	18	21	26	NaN	0.85	0.73	0.59	NaN

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Continued...

	Source	Comments
Pensions (ils_pen)		
old age pension (poa00)	Estonian Social Insurance Board („Pensionärid")	-
old age pension abroad (poaab)	-	-
survivors' pension (toitjakaotuspension) (psu)	Estonian Social Insurance Board („Pensionärid")	-
disability pension (invaliidsuspension) (pdi)	Estonian Social Insurance Board („Pensionärid")	-
Means-tested benefits (ils_benmt)		
subsistence benefit (toimetulekutoetus) (bsa00_s)	Statistics Estonia (SK410, SK430)	-
needs-based family benefit (vajaduspõhine peretoetus) (bsach_s)	-	-
pensioner's living alone allowance (üksi elava pensionäri toetus) (simulated) (bsape_s)	Estonian Social Insurance Board („Sotsiaalkindlustus")	-
Non-means-tested benefits (ils_bennt)		
childcare allowance (lapsehooldustasu) (bcc00_s)	Estonian Social Insurance Board („Sotsiaalkindlustus")	-
allowance for families with many children (lasterikka pere toetus) (bcclg_s)	Statistics Estonia (SK17)	-
child allowance (lapsetoetus) (bch00_s)	Statistics Estonia (SK17)	-
child allowance abroad (bchab)	-	-
school allowance (koolitoetus) (bched_s)	-	-
large family allowance (kolme- ja enamalapselise pere toetus) (bchlg_s)	-	-
single parent child allowance (üksikvanema lapse toetus) (bchlp)	Statistics Estonia (SK17)	-
social benefits for disabled people (bdiit)	Statistics Estonia (SK18)	-
work ability allowance (töövõimetoetus) (bdirw)	Estonian Unemployment Insurance Fund	-
scholarships and grants (bed)	-	-
sickness benefit (haigusraha) (bhl)	Statistics Estonia (SK16)	-
unemployment insurance benefit (töötukindlustushüvitis) (bunct_s)	Estonian Unemployment Insurance Fund	-
unemployment assistance benefit (töötu abiraha) (bunnc_s)	Estonian Unemployment Insurance Fund	-

	Source	Comments
covid-19 compensation paid by the state (bwkmcee_s)	-	-
unemployment retraining benefit (töötu ümberõppe stipendium) (buntr)	-	-
severance pay (yunsv)	-	-
severance pay: 01 (yunsv01)	-	-
severance pay: 02 (yunsv02)	-	-
severance pay: 03 (yunsv03)	-	-
other social assistance (bsals)	-	-
maintenance allowance (bcham)	Estonian Social Insurance Board („Sotsiaalkindlustus")	-
local child benefits (bchot)	-	-
foster care allowance (eestkostetava või perekonnas hooldamisel oleva lapse toetust) (bfafp)	-	-
one time price relief support (bsaxp_s)	-	-
childbirth allowance (sünnitoetus) (bchba_s)	Statistics Estonia (SK17)	-
parental benefit (vanemapalk) (bmact)	Statistics Estonia (SK23, SK22, SK17)	-
maternity benefit (sünnitushüvitis) (bmapr)	Statistics Estonia (SK16)	-
mother's parental benefit (ema vanemahüvitis) (bmactmh)	-	-
parental benefit abroad (bmaab)	-	-
maternity benefit (sünnitushüvitis) (bmapr_s)	Statistics Estonia (SK16)	-
parental benefit (vanemapalk) (bmact_s)	Statistics Estonia (SK23, SK22, SK17)	-
mother's parental benefit (ema vanemahüvitis) (bmactmh_s)	-	-
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)		
Severance pay (yunsv)	Estonian Unemployment Insurance Fund, MTA (FIDEK 5.1)	-

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)																					
old age pension (poa00)	N	2,052	2,215	2,541	2,810	2,052	2,052	2,052	2,052	1.00	1.08	1.24	1.37	2,094	2,243	2,617	NaN	0.98	0.99	0.97	NaN
old age pension abroad (poaab)	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
survivors' pension (toitjakaotuspension) (psu)	N	7	8	9	10	7	7	7	7	1.00	1.08	1.24	1.37	15	16	19	NaN	0.49	0.49	0.48	NaN
disability pension (invaliidsuspension) (pdi)	N	19	21	24	26	19	19	19	19	1.00	1.08	1.24	1.37	24	9	9	NaN	0.79	2.28	2.62	NaN
Means-tested benefits (ils_benmt)																					
subsistence benefit (toimetulekutoetus) (bsa00_s)	Y	26	70	73	70	12	12	12	12	2.19	6.02	6.25	5.97	16	40	45	NaN	1.60	1.76	1.62	NaN
needs-based family benefit (vajaduspõhine peretoetus) (bsach_s)	Y	NaN	NaN	NaN	NaN	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
pensioner's living alone allowance (üksi elava pensionäri toetus) (simulated) (bsape_s)	Y	10	17	17	17	10	10	10	10	1.00	1.74	1.74	1.74	11	19	13	NaN	0.91	0.92	1.34	NaN
Non-means-tested benefits (ils_bennt)																					
childcare allowance (lapsehooldustasu) (bcc00_s)	Y	9	4	4	4	11	11	11	11	0.81	0.36	0.37	0.37	12	4	3	NaN	0.74	0.99	1.34	NaN
allowance for families with many children (lasterikka pere toetus) (bcclg_s)	Y	80	80	190	125	87	87	87	87	0.92	0.92	2.18	1.44	83	86	196	NaN	0.96	0.93	0.97	NaN
child allowance (lapsetoetus) (bch00_s)	Y	207	207	270	270	149	149	149	149	1.38	1.38	1.81	1.81	205	211	274	NaN	1.01	0.98	0.98	NaN
child allowance abroad (bchab)	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
school allowance (koolitoetus) (bched_s)	Y	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
large family allowance (kolme- ja enamalapselise pere toetus) (bchlg_s)	Y	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
single parent child allowance (üksikvanema lapse toetus) (bchlp)	N	2	2	7	7	2	2	2	2	1.00	1.00	4.17	4.17	2	2	9	NaN	0.88	0.88	0.81	NaN
social benefits for disabled people (bdiit)	N	49	49	49	49	49	49	49	49	1.00	1.00	1.00	1.00	68	62	59	NaN	0.72	0.79	0.83	NaN
work ability allowance (töövõimetoetus) (bdirw)	N	369	398	453	501	369	369	369	369	1.00	1.08	1.23	1.36	366	389	423	NaN	1.01	1.02	1.07	NaN
scholarships and grants (bed)	N	38	38	38	38	38	38	38	38	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
sickness benefit (haigusraha) (bhl)	N	169	185	200	215	169	169	169	169	1.00	1.09	1.18	1.27	166	186	155	NaN	1.02	0.99	1.29	NaN
unemployment insurance benefit (töötukindlustushüvitis) (bunct_s)	Y	141	152	165	179	123	123	123	123	1.14	1.23	1.34	1.45	110	87	119	NaN	1.28	1.75	1.39	NaN
unemployment assistance benefit (töötu abiraha) (bunnc_s)	Y	34	34	38	42	29	29	29	29	1.18	1.18	1.33	1.47	30	38	45	NaN	1.14	0.90	0.85	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
covid-19 compensation paid by the state (bwkmcee_s)	Y	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
unemployment retraining benefit (töötu ümberõppe stipendium) (buntr)	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
severance pay (yunsv)	N	63	68	73	77	63	63	63	63	1.00	1.08	1.16	1.23	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
severance pay: 01 (yunsv01)	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
severance pay: 02 (yunsv02)	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
severance pay: 03 (yunsv03)	N	63	68	73	77	63	63	63	63	1.00	1.08	1.16	1.23	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
other social assistance (bsals)	N	27	27	27	27	27	27	27	27	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
maintenance allowance (bcham)	N	5	5	5	5	5	5	5	5	1.00	1.00	1.00	1.00	5	5	5	NaN	1.04	1.04	1.04	NaN
local child benefits (bchot)	N	38	38	38	38	38	38	38	38	1.00	1.00	1.00	1.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
foster care allowance (eestkostetava või perekonnas hooldamisel oleva lapse toetust) (bfafp)	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
one time price relief support (bsaxp_s)	Y	NaN	29	NaN	NaN	0	0	0	0	NaN	0.00	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
childbirth allowance (sünnitoetus) (bchba_s)	Y	5	5	5	5	5	5	5	5	1.08	1.08	1.08	1.08	4	4	3	NaN	1.25	1.25	1.67	NaN
parental benefit (vanemapalk) (bmact)	N	360	394	426	458	360	360	360	360	1.00	1.09	1.18	1.27	267	242	298	NaN	1.35	1.63	1.43	NaN
maternity benefit (sünnitushüvitis) (bmapr)	N	83	90	98	105	83	83	83	83	1.00	1.09	1.18	1.27	58	75	37	NaN	1.42	1.20	2.64	NaN
mother's parental benefit (ema vanemahüvitis) (bmactmh)	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
parental benefit abroad (bmaab)	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
maternity benefit (sünnitushüvitis) (bmapr_s)	Y	NaN	NaN	NaN	NaN	83	83	83	83	NaN	NaN	NaN	NaN	58	75	37	NaN	NaN	NaN	NaN	NaN
parental benefit (vanemapalk) (bmact_s)	Y	NaN	NaN	NaN	NaN	360	360	360	360	NaN	NaN	NaN	NaN	267	242	298	NaN	NaN	NaN	NaN	NaN
mother's parental benefit (ema vanemahüvitis) (bmactmh_s)	Y	NaN	NaN	NaN	NaN	0	0	0	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Other external statistics (ils_extstat_other) (NOTE: some components are hidden!)																					
Severance pay (yunsv)	N	63	68	73	77	63	63	63	63	1.00	1.08	1.16	1.23	42	53	70	NaN	1.50	1.29	1.05	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	3.00	3.15	3.25	3.29	2.90	2.80	NaN	NaN	1.03	1.12	NaN	NaN
Decile 2	4.51	4.54	4.73	4.83	4.40	4.50	NaN	NaN	1.02	1.01	NaN	NaN
Decile 3	5.60	5.58	5.82	5.88	5.40	5.50	NaN	NaN	1.04	1.01	NaN	NaN
Decile 4	6.86	6.81	6.91	6.88	6.80	6.80	NaN	NaN	1.01	1.00	NaN	NaN
Decile 5	8.10	8.03	8.12	8.04	8.10	8.10	NaN	NaN	1.00	0.99	NaN	NaN
Decile 6	9.32	9.30	9.36	9.26	9.40	9.60	NaN	NaN	0.99	0.97	NaN	NaN
Decile 7	10.82	10.76	10.70	10.72	11.00	10.90	NaN	NaN	0.98	0.99	NaN	NaN
Decile 8	12.63	12.62	12.50	12.50	12.90	13.00	NaN	NaN	0.98	0.97	NaN	NaN
Decile 9	15.38	15.40	15.29	15.22	15.80	15.60	NaN	NaN	0.97	0.99	NaN	NaN
Decile 10	23.78	23.81	23.33	23.39	23.20	23.30	NaN	NaN	1.03	1.02	NaN	NaN
Median	14,609	15,648	17,349	17,985	14,827	15,128	NaN	NaN	0.99	1.03	NaN	NaN
Mean	15,423	16,659	18,326	19,346	16,920	17,110	NaN	NaN	0.91	0.97	NaN	NaN
Gini	31.76	31.64	30.70	30.60	31.90	31.80	NaN	NaN	1.00	1.00	NaN	NaN
S80/20	5.22	5.10	4.84	4.76	5.39	5.37	NaN	NaN	0.97	0.95	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	5.57	5.14	4.66	4.50	6.40	6.40	NaN	NaN	0.87	0.80	NaN	NaN
Males	6.20	5.79	5.47	5.34	7.20	7.10	NaN	NaN	0.86	0.82	NaN	NaN
Females	5.00	4.54	3.94	3.74	5.60	5.80	NaN	NaN	0.89	0.78	NaN	NaN
50% median HDI by sex												
Total	13.54	12.93	11.00	9.56	15.30	14.70	NaN	NaN	0.89	0.88	NaN	NaN
Males	11.92	11.21	10.52	9.94	13.60	13.50	NaN	NaN	0.88	0.83	NaN	NaN
Females	15.01	14.49	11.44	9.22	16.80	15.70	NaN	NaN	0.89	0.92	NaN	NaN
60% median HDI by sex												
Total	21.50	21.36	19.81	18.48	22.80	22.50	NaN	NaN	0.94	0.95	NaN	NaN
Males	19.39	19.21	17.61	16.48	20.80	19.70	NaN	NaN	0.93	0.98	NaN	NaN
Females	23.41	23.30	21.81	20.29	24.60	25.00	NaN	NaN	0.95	0.93	NaN	NaN
70% median HDI by sex												
Total	29.22	29.36	28.04	27.26	29.80	30.70	NaN	NaN	0.98	0.96	NaN	NaN
Males	27.37	27.49	26.22	25.32	27.90	28.00	NaN	NaN	0.98	0.98	NaN	NaN
Females	30.89	31.06	29.70	29.01	31.60	33.10	NaN	NaN	0.98	0.94	NaN	NaN
60% median HDI by age group												
0-15 years	11.03	11.51	9.97	10.61	13.10	16.00	NaN	NaN	0.84	0.72	NaN	NaN
16-24 years	22.53	22.20	20.93	21.07	22.10	22.60	NaN	NaN	1.02	0.98	NaN	NaN
25-49 years	11.33	11.39	10.90	10.99	12.10	13.50	NaN	NaN	0.94	0.84	NaN	NaN
50-64 years	18.49	17.45	17.11	16.46	20.10	19.20	NaN	NaN	0.92	0.91	NaN	NaN
65+ years	50.34	50.27	45.66	38.89	52.30	46.80	NaN	NaN	0.96	1.07	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	NaN	2,882	3,198	3,366	2,935	3,456	3,456	3,456	NaN	0.83	0.93	0.97
02 Alcoholic beverages, tobacco, etc. (il_x02)	Y	NaN	469	519	544	1,091	1,195	1,195	1,195	NaN	0.39	0.43	0.46
03 Clothing and footwear (il_x03)	Y	NaN	592	654	686	918	1,065	1,065	1,065	NaN	0.56	0.61	0.64
04 Housing, water and fuel (exc. imputed rent) (il_x04)	Y	NaN	1,853	2,049	2,160	1,563	2,183	2,183	2,183	NaN	0.85	0.94	0.99
05 Furnishings, household equipment, etc. (il_x05)	Y	NaN	861	951	1,001	764	846	846	846	NaN	1.02	1.13	1.18
06 Health (il_x06)	Y	NaN	513	570	601	560	584	584	584	NaN	0.88	0.98	1.03
07 Transport (il_x07)	Y	NaN	1,647	1,814	1,902	1,524	2,009	2,009	2,009	NaN	0.82	0.90	0.95
08 Communications (il_x08)	Y	NaN	567	629	661	389	405	405	405	NaN	1.40	1.55	1.63
09 Recreation and culture (il_x09)	Y	NaN	1,367	1,502	1,580	1,323	1,610	1,610	1,610	NaN	0.85	0.93	0.98
10 Education (il_x10)	Y	NaN	129	142	149	82	84	84	84	NaN	1.54	1.69	1.77
11 Hotels and restaurants (il_x11)	Y	NaN	487	533	559	849	1,295	1,295	1,295	NaN	0.38	0.41	0.43
12 Miscellaneous good and services (il_x12)	Y	NaN	654	720	755	1,369	1,444	1,444	1,444	NaN	0.45	0.50	0.52
Revenue from indirect taxes (non calibrated) (ils_extstat_ittncal_il_itt_revnc)													
VAT Total Revenue (il_tva)	Y	NaN	1,794	1,980	2,249	2,877	3,309	3,476	NaN	NaN	0.54	0.57	NaN
Excises Total Revenue (il_tx)	Y	NaN	358	407	439	984	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Total excises (non calibrated) (ils_extstat_ittncal_il_itt_excnc)													
Revenues Excises 0211 - Spirits (il_tx0211)	Y	NaN	33	35	36	124	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 02121 - Still Wine (il_tx02121)	Y	NaN	10	10	10	27	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	NaN	1	1	1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 0213 - Beer (il_tx0213)	Y	NaN	22	21	22	59	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 022 - Tobacco (il_tx022)	Y	NaN	120	134	137	242	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 045 - Energy (electricity, natural gas, coal-coke) (il_tx045)	Y	NaN	36	40	48	25	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 0451 - Electricity (il_tx0451)	Y	NaN	2	3	4	8	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 04521 - Natural Gas (il_tx04521)	Y	NaN	1	2	3	17	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises All Energy (il_tx045_072)	Y	NaN	172	205	233	515	NaN	NaN	NaN	NaN	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	NaN	2,429	2,649	2,959	2,877	3,309	3,476	NaN	NaN	0.73	0.76	NaN
Excises Total Revenue (il_tx_na)	Y	NaN	682	753	786	984	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Total excises (calibrated) (il_itt_excc)													
Revenues Excises 0211 - Spirits (il_tx0211_na)	Y	NaN	85	89	89	124	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 02121 - Still Wine (il_tx02121_na)	Y	NaN	26	26	26	27	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 02122 - Sparkling Wine (il_tx02122_na)	Y	NaN	1	2	2	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 0213 - Beer (il_tx0213_na)	Y	NaN	55	54	55	59	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 022 - Tobacco (il_tx022_na)	Y	NaN	306	337	339	242	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 045 - Energy (electricity, natural gas, coal-coke) (il_tx045_na)	Y	NaN	43	46	55	25	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 0451 - Electricity (il_tx0451_na)	Y	NaN	3	3	5	8	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises 04521 - Natural Gas (il_tx04521_na)	Y	NaN	2	2	3	17	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Revenues Excises All Energy (il_tx045_072_na)	Y	NaN	209	246	275	515	NaN	NaN	NaN	NaN	NaN	NaN	NaN

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