**Supplementary material**

**A1. Definitions**

ESSPROS (European system of integrated social protection statistics) defines the following concepts:

* Social protection: encompasses all interventions from public or private bodies intended to relieve households and individuals of the burden of a defined set of risks or needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved. The list of risks or needs that may give rise to social protection is, by convention, as follows: 1. Sickness/Health care 2. Disability 3. Old age 4. Survivors 5. Family/children 6. Unemployment 7. Housing 8. Social exclusion not elsewhere classified.
* Means-tested social benefits: are social benefits that are explicitly or implicitly conditional on the beneficiary’s income and/or wealth falling below a specified level. They may be granted under all functions, however, they are particularly common in the functions *Housing and Social exclusion not elsewhere classified*, as shown in Table A1.1. Although most means-tested benefits are targeted at low income households, some may be directed at wider sections of the population. For example, certain schemes in the Netherlands, Italy, Latvia, Portugal, Romania, Slovakia and Spain provide means-tested housing and/or old age or social support benefits to households that cannot be regarded as being indigent. We identify countries in which means-tested family/children benefits are particularly common: Bulgaria, Poland, Croatia, Slovenia, Portugal and Italy.

Table A1.1. Expenditure in means-tested benefits by function, 2011 (Eurostat)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Countries | Sickness/Health care | Disability | Old age | Survivors | Family/Children | Unemployment | Housing | Social exclusion |
| AT | 0.0% | 22.7% | 27.3% | 4.5% | 13.6% | 13.6% | 4.5% | 13.6% |
| BE | 0.0% | 21.4% | 21.4% | 0.0% | 0.0% | 0.0% | 14.3% | 42.9% |
| BG | 0.0% | 0.0% | 0.0% | 0.0% | 83.3% | 0.0% | 0.0% | 16.7% |
| CY | 0.0% | 0.0% | 29.6% | 0.0% | 0.0% | 0.0% | 33.3% | 37.0% |
| CZ | 0.0% | 0.0% | 0.0% | 0.0% | 33.3% | 0.0% | 33.3% | 33.3% |
| DE | 3.2% | 19.4% | 0.0% | 0.0% | 35.5% | 19.4% | 19.4% | 3.2% |
| DK | 0.0% | 22.9% | 61.5% | 0.0% | 0.9% | 0.0% | 6.4% | 8.3% |
| EE | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| EL | 0.0% | 11.1% | 44.4% | 22.2% | 11.1% | 0.0% | 0.0% | 11.1% |
| ES | 0.0% | 12.2% | 34.1% | 7.3% | 9.8% | 26.8% | 4.9% | 4.9% |
| FI | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 30.8% | 38.5% | 30.8% |
| FR | 2.9% | 11.8% | 5.9% | 11.8% | 14.7% | 2.9% | 23.5% | 26.5% |
| HR | 0.0% | 18.2% | 9.1% | 0.0% | 54.5% | 0.0% | 0.0% | 18.2% |
| HU | 11.1% | 0.0% | 0.0% | 0.0% | 11.1% | 33.3% | 44.4% | 0.0% |
| IE | 14.5% | 10.1% | 13.0% | 0.0% | 18.8% | 33.3% | 7.2% | 2.9% |
| IS | 0.0% | 31.1% | 32.8% | 0.0% | 8.2% | 0.0% | 23.0% | 4.9% |
| IT | 0.0% | 20.0% | 26.7% | 0.0% | 40.0% | 0.0% | 0.0% | 13.3% |
| LT | 0.0% | 0.0% | 0.0% | 0.0% | 22.2% | 0.0% | 0.0% | 77.8% |
| LU | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 37.5% | 62.5% |
| LV | 33.3% | 0.0% | 0.0% | 0.0% | 0.0% | 16.7% | 16.7% | 33.3% |
| MT | 34.6% | 7.7% | 11.5% | 0.0% | 19.2% | 15.4% | 7.7% | 3.8% |
| NL | 0.0% | 10.5% | 23.7% | 0.0% | 5.3% | 13.2% | 10.5% | 36.8% |
| NO | 0.0% | 9.1% | 18.2% | 27.3% | 18.2% | 0.0% | 9.1% | 18.2% |
| PL | 0.0% | 0.0% | 0.0% | 0.0% | 66.7% | 0.0% | 16.7% | 16.7% |
| PT | 0.0% | 8.7% | 30.4% | 0.0% | 39.1% | 8.7% | 0.0% | 13.0% |
| RO | 0.0% | 0.0% | 12.5% | 12.5% | 12.5% | 37.5% | 0.0% | 25.0% |
| SE | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 57.1% | 42.9% |
| SI | 0.0% | 5.0% | 5.0% | 5.0% | 65.0% | 0.0% | 0.0% | 20.0% |
| SK | 0.0% | 22.2% | 33.3% | 0.0% | 0.0% | 0.0% | 0.0% | 44.4% |
| UK | 2.4% | 19.0% | 23.8% | 0.0% | 4.8% | 7.1% | 33.3% | 9.5% |

Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.

Source: ESSPROS

* Family/children benefits: are transfers targeted at households with dependent children, including: maternity allowances, birth grants, parental leave benefits, family or child allowances, other periodic or lump-sum payments to support households and help them meet the costs of specific needs, shelter and board provided to pre-school children during the day or part of the day, financial assistance towards payment of a nurse to look after children during the day, shelter and board provided to children and families on a permanent basis, goods and services provided at home to children or to those who care for them, miscellaneous services and goods provided to families, young people or children. They are in cash or kind, except health care, in connection with the costs of pregnancy, childbirth and adoption, bringing up children and caring for other family members. Cash benefits are greater than 40% total family/child benefits in all countries except in Spain and Denmark. Figure A1.2 provides a detailed description of the composition of the expenditure in family/children cash benefits by type.

Figure A1.2. Composition of the expenditure in family/children cash benefits by type, 2011 (Eurostat)

Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.

Note that family/children benefits provided through the fiscal system are not taken into account in the data. For example, non-payable tax credits and higher tax free allowances provided to those with dependants may reduce taxes paid by recipients but are not taken into account in the expenditure recorded by the ESSPROS core system.

**A2. Descriptive statistics**

Table A2.1. Proportion of household with children in each income decile over total number of household with children

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 |
| AT | 0.10 | 0.12 | 0.13 | 0.13 | 0.13 | 0.10 | 0.09 | 0.09 | 0.06 | 0.06 |
| BE | 0.11 | 0.09 | 0.08 | 0.10 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 |
| BG | 0.12 | 0.10 | 0.09 | 0.10 | 0.11 | 0.10 | 0.11 | 0.09 | 0.09 | 0.08 |
| CY | 0.09 | 0.09 | 0.10 | 0.12 | 0.11 | 0.10 | 0.11 | 0.10 | 0.10 | 0.08 |
| CZ | 0.13 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.11 | 0.09 | 0.08 | 0.09 |
| DE | 0.09 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.08 | 0.08 |
| DK | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.12 | 0.10 | 0.08 |
| EE | 0.09 | 0.08 | 0.09 | 0.08 | 0.10 | 0.11 | 0.11 | 0.10 | 0.11 | 0.13 |
| EL | 0.14 | 0.10 | 0.09 | 0.10 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.09 |
| ES | 0.13 | 0.12 | 0.11 | 0.11 | 0.10 | 0.09 | 0.10 | 0.08 | 0.09 | 0.08 |
| FI | 0.07 | 0.08 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.11 | 0.10 | 0.08 |
| FR | 0.11 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.09 | 0.10 | 0.08 | 0.07 |
| HR | 0.10 | 0.10 | 0.10 | 0.11 | 0.10 | 0.10 | 0.11 | 0.10 | 0.09 | 0.08 |
| HU | 0.13 | 0.11 | 0.10 | 0.09 | 0.09 | 0.09 | 0.10 | 0.09 | 0.09 | 0.10 |
| IE | 0.10 | 0.12 | 0.10 | 0.11 | 0.11 | 0.12 | 0.09 | 0.09 | 0.09 | 0.08 |
| IS | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.08 | 0.08 |
| IT | 0.13 | 0.11 | 0.12 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.08 | 0.06 |
| LT | 0.12 | 0.09 | 0.10 | 0.10 | 0.09 | 0.10 | 0.10 | 0.12 | 0.09 | 0.10 |
| LU | 0.14 | 0.13 | 0.12 | 0.11 | 0.09 | 0.09 | 0.08 | 0.10 | 0.07 | 0.06 |
| LV | 0.12 | 0.11 | 0.08 | 0.10 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 |
| MT | 0.14 | 0.12 | 0.11 | 0.10 | 0.12 | 0.11 | 0.09 | 0.08 | 0.08 | 0.05 |
| NL | 0.11 | 0.11 | 0.09 | 0.11 | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 |
| NO | 0.08 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.08 | 0.07 |
| PL | 0.10 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 |
| PT | 0.12 | 0.10 | 0.10 | 0.10 | 0.12 | 0.10 | 0.10 | 0.09 | 0.08 | 0.08 |
| RO | 0.13 | 0.12 | 0.12 | 0.11 | 0.10 | 0.10 | 0.09 | 0.08 | 0.08 | 0.08 |
| SE | 0.10 | 0.08 | 0.10 | 0.12 | 0.12 | 0.12 | 0.12 | 0.10 | 0.09 | 0.06 |
| SI | 0.09 | 0.10 | 0.09 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 |
| SK | 0.13 | 0.11 | 0.10 | 0.10 | 0.10 | 0.11 | 0.10 | 0.10 | 0.08 | 0.07 |
| UK | 0.09 | 0.12 | 0.12 | 0.12 | 0.11 | 0.10 | 0.10 | 0.09 | 0.08 | 0.07 |

Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.

Table A2.2. Proportion of households with children over total number of households by income decile

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 |
| AT | 0.21 | 0.28 | 0.34 | 0.32 | 0.32 | 0.25 | 0.22 | 0.22 | 0.14 | 0.15 |
| BE | 0.29 | 0.21 | 0.18 | 0.27 | 0.28 | 0.33 | 0.29 | 0.30 | 0.29 | 0.25 |
| BG | 0.37 | 0.23 | 0.23 | 0.26 | 0.32 | 0.32 | 0.36 | 0.30 | 0.30 | 0.25 |
| CY | 0.22 | 0.25 | 0.30 | 0.46 | 0.39 | 0.35 | 0.37 | 0.34 | 0.36 | 0.26 |
| CZ | 0.33 | 0.25 | 0.24 | 0.26 | 0.28 | 0.28 | 0.33 | 0.27 | 0.24 | 0.26 |
| DE | 0.13 | 0.21 | 0.22 | 0.21 | 0.23 | 0.24 | 0.21 | 0.21 | 0.17 | 0.16 |
| DK | 0.11 | 0.16 | 0.19 | 0.23 | 0.29 | 0.33 | 0.37 | 0.31 | 0.27 | 0.22 |
| EE | 0.22 | 0.16 | 0.19 | 0.22 | 0.31 | 0.33 | 0.33 | 0.31 | 0.33 | 0.37 |
| EL | 0.43 | 0.29 | 0.26 | 0.27 | 0.23 | 0.23 | 0.28 | 0.28 | 0.29 | 0.24 |
| ES | 0.38 | 0.38 | 0.30 | 0.34 | 0.29 | 0.26 | 0.29 | 0.24 | 0.27 | 0.21 |
| FI | 0.11 | 0.15 | 0.23 | 0.27 | 0.28 | 0.31 | 0.30 | 0.28 | 0.26 | 0.18 |
| FR | 0.29 | 0.33 | 0.28 | 0.27 | 0.31 | 0.29 | 0.25 | 0.26 | 0.20 | 0.20 |
| HR | 0.25 | 0.26 | 0.27 | 0.33 | 0.30 | 0.31 | 0.33 | 0.31 | 0.30 | 0.24 |
| HU | 0.43 | 0.30 | 0.26 | 0.24 | 0.23 | 0.27 | 0.27 | 0.26 | 0.26 | 0.27 |
| IE | 0.37 | 0.48 | 0.34 | 0.47 | 0.46 | 0.50 | 0.41 | 0.39 | 0.36 | 0.29 |
| IS | 0.37 | 0.35 | 0.35 | 0.39 | 0.38 | 0.37 | 0.37 | 0.32 | 0.30 | 0.27 |
| IT | 0.36 | 0.27 | 0.31 | 0.28 | 0.25 | 0.26 | 0.26 | 0.24 | 0.19 | 0.15 |
| LT | 0.31 | 0.19 | 0.22 | 0.27 | 0.23 | 0.29 | 0.30 | 0.37 | 0.28 | 0.29 |
| LU | 0.48 | 0.39 | 0.39 | 0.37 | 0.27 | 0.25 | 0.23 | 0.29 | 0.19 | 0.16 |
| LV | 0.30 | 0.26 | 0.16 | 0.24 | 0.25 | 0.32 | 0.32 | 0.29 | 0.29 | 0.32 |
| MT | 0.35 | 0.32 | 0.28 | 0.26 | 0.34 | 0.31 | 0.26 | 0.24 | 0.21 | 0.12 |
| NL | 0.24 | 0.26 | 0.21 | 0.29 | 0.29 | 0.28 | 0.28 | 0.25 | 0.23 | 0.19 |
| NO | 0.17 | 0.27 | 0.31 | 0.34 | 0.33 | 0.34 | 0.32 | 0.29 | 0.24 | 0.22 |
| PL | 0.34 | 0.35 | 0.33 | 0.33 | 0.32 | 0.30 | 0.31 | 0.30 | 0.33 | 0.30 |
| PT | 0.42 | 0.29 | 0.30 | 0.32 | 0.39 | 0.33 | 0.31 | 0.29 | 0.26 | 0.24 |
| RO | 0.52 | 0.43 | 0.38 | 0.36 | 0.30 | 0.34 | 0.28 | 0.25 | 0.27 | 0.25 |
| SE | 0.22 | 0.15 | 0.25 | 0.33 | 0.37 | 0.34 | 0.36 | 0.31 | 0.27 | 0.16 |
| SI | 0.18 | 0.24 | 0.23 | 0.31 | 0.36 | 0.37 | 0.36 | 0.36 | 0.27 | 0.26 |
| SK | 0.38 | 0.26 | 0.23 | 0.24 | 0.27 | 0.32 | 0.31 | 0.30 | 0.24 | 0.21 |
| UK | 0.24 | 0.37 | 0.35 | 0.33 | 0.33 | 0.30 | 0.30 | 0.26 | 0.22 | 0.21 |

Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.

Table A2.3. Descriptive statistics for explanatory variables

|  |  |  |
| --- | --- | --- |
| VARIABLES | Mean | Standard Deviation |
| Micro determinants |  |  |
| lone-parent | 0.11 | 0.32 |
| multiunit | 0.60 | 0.23 |
| jobless | 0.07 | 0.25 |
| Nch\_2 | 0.23 | 0.47 |
| Nch\_3\_5 | 0.27 | 0.50 |
| Nch\_6\_11 | 0.55 | 0.71 |
| Nch\_12\_17 | 0.63 | 0.73 |
| Owner | 0.36 | 0.48 |
| thinly populated | 0.35 | 0.48 |
| young father | 0.04 | 0.20 |
| old father | 0.02 | 0.15 |
| secondary father | 0.54 | 0.50 |
| tertiary father | 0.24 | 0.43 |
| work father | 0.57 | 0.50 |
| health father | 0.04 | 0.18 |
| EU immigrant father | 0.04 | 0.18 |
| non-EU immigrant father | 0.06 | 0.23 |
| young mother | 0.09 | 0.28 |
| old mother | 0.03 | 0.18 |
| secondary mother | 0.58 | 0.49 |
| tertiary mother | 0.32 | 0.46 |
| work mother | 0.39 | 0.49 |
| health mother | 0.05 | 0.22 |
| EU immigrant mother | 0.05 | 0.21 |
| non-EU immigrant mother | 0.08 | 0.26 |

Table A2.4. Country level explanatory variables

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Countries | size | pro-child targeting | pro-poor targeting | GDP | employment | in-work poverty | % multigenerational households |
| AT | 28.21 | 10.15 | 8.21 | 128 | 74.20 | 7.60 | 2.90 |
| BE | 28.37 | 7.88 | 5.01 | 120 | 67.30 | 4.20 | 1.10 |
| BG | 15.95 | 10.95 | 4.27 | 45 | 62.90 | 8.20 | 9.50 |
| CH | 23.03 | 5.99 | 7.17 | 161 | 81.80 | 7.70 | 0.64 |
| CY | 20.57 | 8.88 | 12.85 | 96 | 73.40 | 7.30 | 1.00 |
| CZ | 19.45 | 9.31 | 1.83 | 83 | 70.90 | 4.00 | 1.80 |
| DE | 27.34 | 11.17 | 11.91 | 123 | 76.50 | 7.70 | 0.46 |
| DK | 30.98 | 12.36 | 35.27 | 128 | 75.70 | 6.30 | 0.20 |
| EE | 15.46 | 12.39 | 0.98 | 71 | 70.60 | 7.90 | 3.20 |
| EL | 27.15 | 3.88 | 3.15 | 75 | 59.60 | 11.90 | 1.50 |
| ES | 24.87 | 5.51 | 16.18 | 93 | 62.62 | 10.90 | 3.20 |
| FI | 28.11 | 11.13 | 4.63 | 117 | 73.80 | 3.90 | 0.38 |
| FR | 30.85 | 7.95 | 11.49 | 108 | 69.20 | 7.60 | 0.54 |
| HR | 19.97 | 7.39 | 6.93 | 60 | 59.80 | 6.60 | 8.00 |
| HU | 21.50 | 12.68 | 4.66 | 66 | 60.40 | 6.20 | 4.80 |
| IE | 21.85 | 13.53 | 31.16 | 132 | 63.70 | 5.60 | 1.30 |
| IS | 23.68 | 11.37 | 25.85 | 114 | 80.60 | 6.40 | 0.81 |
| IT | 27.36 | 4.23 | 5.68 | 104 | 61.61 | 11.00 | 2.30 |
| LT | 16.18 | 10.37 | 6.02 | 66 | 66.90 | 9.50 | 4.80 |
| LU | 21.58 | 16.46 | 3.81 | 263 | 70.10 | 9.90 | 2.50 |
| LV | 15.10 | 7.47 | 4.38 | 57 | 66.30 | 9.30 | 6.80 |
| MT | 18.59 | 6.21 | 13.21 | 83 | 61.60 | 6.10 | 2.10 |
| NL | 28.17 | 4.03 | 13.21 | 133 | 76.40 | 5.40 | 0.29 |
| NO | 24.28 | 12.78 | 4.59 | 179 | 79.60 | 5.60 | 0.31 |
| PL | 18.23 | 7.07 | 3.41 | 65 | 64.50 | 11.10 | 9.20 |
| PT | 24.24 | 4.86 | 8.76 | 77 | 68.80 | 10.30 | 3.50 |
| RO | 16.24 | 10.47 | 4.83 | 52 | 63.80 | 19.10 | 8.40 |
| SE | 27.72 | 10.62 | 2.75 | 126 | 79.40 | 6.80 | 0.29 |
| SI | 24.08 | 8.89 | 8.33 | 83 | 68.40 | 6.00 | 2.40 |
| SK | 17.33 | 9.90 | 5.26 | 75 | 65.65 | 6.30 | 4.90 |
| UK | 28.88 | 10.66 | 14.45 | 107 | 74.10 | 9.00 | 0.84 |

Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.