



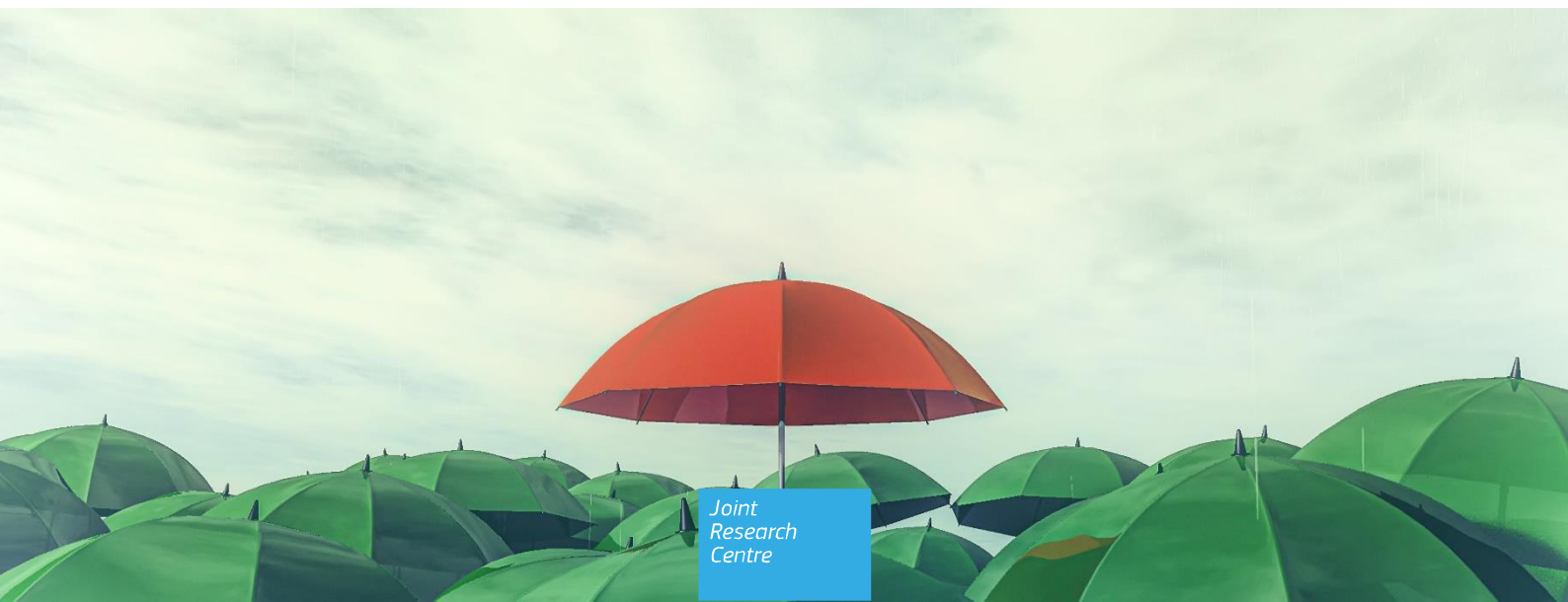
Measuring the adequacy of social protection by looking at those above the poverty line

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Abstract

This study builds on previous efforts to refine the Monitoring Framework on access to social protection for workers and the self-employed, adopted on November 2020 by the European Commission and the Social Protection Committee. None of the indicators currently included in the Monitoring Framework aims at measuring the adequacy of social protection when a risk materialises. This gap should not be overlooked given that any type of social programme is aimed at effectively protecting individuals when they face a certain need. For instance, sickness benefits are aimed to adequately protect people in sickness. Accordingly, new indicators are proposed to measure social protection in Europe. They are developed exploiting the approach ideated by Podestà and Marzadro (2017) to operationalise the de-commodification outcomes of different social programmes. The adequacy of a certain social programme can be thus measured through the percentage of individuals not at risk of poverty who interrupt their job activity for retirement, unemployment, maternity, etc. Based on the information provided by EU-SILC database, the adequacy level was computed for pension and unemployment benefits for EU27 countries over the 2014-2020 period. As expected, the adequacy of public pension benefits is significantly higher than that guaranteed by unemployment benefits. Furthermore, the adequacy levels for these two programmes were also estimated simulating that retirees and unemployed individuals leave their respective households to live alone in order to capture the sole contribute of pension and unemployment benefits, respectively. Again, the results were not unexpected: neutralising the family role in protecting retirees and unemployed individuals, pension and especially unemployment benefits result much less capable to provide an adequate protection.

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Executive summary

Over the last decades, European welfare states have gone through substantial changes to adapt to several structural transformations, including population ageing, technological change, and the emergence of new forms of work, etc. Despite efforts to adapt to these challenges, a large segment of European citizens remains uncovered or scarcely protected by welfare programmes. Consequently, the issue of universality of social protection has gained growing relevance at the EU level.

The Council Recommendation on access to social protection for workers and the self-employed constitutes the first flagship action in this direction. In this regard, in November 2020, the Commission, jointly with the Social Protection Committee, adopted a version 0 of the Monitoring Framework on Access to Social Protection for Workers and the Self-Employed. It proposed a preliminary battery of indicators to assess formal and effective coverage and the adequacy of social protection systems across the Member States. In February 2022, a new version of the Monitoring Framework (MF) was published, containing a more refined list of indicators and some methodological enhancements.

In order to estimate how many individuals with different economic statuses are covered and adequately protected by social protection, most of the indicators currently adopted by the MF are income-based poverty measures directed at all individuals. The logic underlying these indicators is to consider all types of social benefits given at individual level, without distinguishing between benefits. Doing so neglects the extent to which individuals are covered and adequately protected when a specific risk materialises. The only MF indicator that addresses this is the second one, which measures effective coverage focusing exclusively on the proportion of people receiving benefits in case of unemployment.

However, following this same logic, some specific indicators could be developed and then included in the MF to measure the effective coverage of other specific risk materialisation, such as sickness, maternity and parental leave. This naturally depends on the information currently available. The MF itself recognises that the usual surveys often do not allow the observation of the population for which the specific risks materialise. EU-SILC and EU-LFS do not provide information about the months spent in sickness, maternity or parental leave. Accordingly, the EU-SILC could be enhanced by including targeted questions in the corresponding questionnaires to precisely gather information on the months spent in sickness, maternity or parental leave in addition to the information about the worker's salary and social benefits received during those months¹.

However, new indicators are also necessary for measuring the adequacy of the different social programmes when a risk materialises. The present work tries to fill this gap by exploiting the approach ideated by Podestà and Marzadro (2017) to operationalise the de-commodification outcomes of different social programmes. The de-commodification outcomes correspond to the proportion of individuals who have interrupted their job activity, but, thanks to social protection, have been able to maintain a socially acceptable standard of living. Assuming that a decommodified individual equates to an adequately protected person, one can then assert that the adequacy of welfare programmes corresponds to the proportion of individuals who have stopped working capable of attaining satisfactory living conditions.

Based on the information provided by EU-SILC database, the adequacy levels were computed for pension and unemployment benefits for EU27 countries over the 2014-2020 period. As expected, the adequacy of public pensions is significantly higher than that guaranteed by unemployment benefits. Furthermore, still following Podestà and Marzadro (2017), the adequacy levels for these two programmes were also estimated simulating that retirees and unemployed individuals leave their respective households to live alone in order to capture the sole contribution of pension and unemployment benefits, respectively. Again, the results were not unexpected: neutralising the family role in protecting retirees and especially unemployed individuals, pension and especially unemployment benefits emerge as much less capable of providing an adequate protection.

¹ The specific questions that could be included in the questionnaire are not reported here as that is beyond the scope of this study's objectives.

1 Introduction

Over the last decades, European welfare states have gone through substantial changes to adapt to several structural transformations, including population ageing, technological change, and the emergence of new forms of work, etc. Despite efforts to adapt to these challenges, a large segment of European citizens remains uncovered or scarcely protected by welfare programmes. Consequently, the issue of universality of social protection has gained growing relevance at the EU level².

The [Council Recommendation](#) on access to social protection for workers and the self-employed constitutes the first flagship action in this direction (European Council, 2019). In this regard, in November 2020, the European Commission, jointly with the Social Protection Committee, adopted the [version 0 of the Monitoring Framework on Access to Social Protection for Workers and the Self-Employed](#). It proposed a preliminary battery of indicators to assess formal and effective coverage and the adequacy of social protection systems across the Member States. In February 2022, an update of the Monitoring Framework was published, containing up-to-date statistics, a slightly refined list of indicators and some methodological enhancements.

In this framework, some research pieces have also been carried out. Muñoz De Bustillo Llorente et al. (2020) investigated the meaning and the measurement of universality in social protection. Avlijaš (2020) compared social protection schemes for the self-employed across EU27. Antón and Grande (2022) made some proposals on how to improve the Monitoring Framework, while Immervoll et al. (2022) focused on the gaps in social protection between standard and non-standard European workers in a subset of countries. Finally, Arranz et al. (2022a, 2022b) have provided two pilot studies in which they i) operationalise a set of indicators for measuring universality in social protection (for Spain only) and ii) analyse the degree of universality of unemployment benefits across EU27.

The present work also fits into this research context. Building on previous works, it aims to propose developments for the refinement of the Monitoring Framework (MF). The specific objective of this report is twofold: i) to contribute to the development of new indicators for measuring the effective coverage and adequacy of social protection; ii) operationalise them operational with a very wide European coverage.

By critically reviewing the list of indicators currently included in the MF, the report highlights that the extent to which individuals are covered and adequately protected by social programmes when a risk materialises is scarcely considered. However, the situation concerning effective coverage is not irreparable: some measurements are already present in the MF and some recent scholarly works may be exploited to introduce new indicators. That said, as it stands, no specific indicator is currently used to measure the adequacy of social protection in the case of risk materialisation. Accordingly, the report proposes some new indicators to fill this gap. These new indicators are developed exploiting the approach ideated by Podestà and Marzadro (2017) to operationalise the de-commodification outcomes of different social programmes. In so doing, the adequacy of social programmes corresponds to the proportion of individuals who have stopped working as a consequence of retirement, unemployment, sickness, maternity (and other social risk materialisation) not at risk of poverty.

Although the Council Recommendation and the MF itself advise that any new indicators should concern all the branches of social protection (unemployment benefits, sickness and healthcare benefits, maternity and paternity benefits, invalidity benefits, old-age benefits, etc.), the new indicators hereafter proposed regard unemployment benefits and old-age pension only. This is simply because EU-SILC allows the computation of these indicators for all European countries only for these two social programmes.

The structure of the report proceeds as follows. Section 2 critically reviews the battery of indicators contained in the MF. Section 3 introduces the new indicators to measure the adequacy of social protection. Section 4 presents the results of an application of these indicators to EU27 countries. Section 5 sums up and concludes.

² In this sense, a [High-Level Group](#) was constituted in 2021 with the aim of presenting recommendations on the future of social protection in Europe.

2 Review of the current list of indicators in the Monitoring Framework

Effective coverage and adequacy are two key dimensions on which to assess the universality of social protection. In accordance with the Council Recommendation on access to social protection, version 0 of the MF defines these two dimensions as follows.

Effective coverage can be viewed as *“a situation in a specific social protection branch where the individuals in a group have an opportunity to accrue benefits and the ability, in the event that the corresponding risk materialises, to access a given level of benefits”*. All those who are effectively covered are also formally covered, but individuals may be formally members of a scheme, without de facto being able to accrue entitlements and to access benefits in the event that the corresponding risk materialises (MF, p.18).

On the other hand, adequacy should ideally reflect all the key objectives of social protection systems as they are set out in the Recommendation: *“Where a risk insured by social protection schemes for workers and for the self-employed occurs, Member States are recommended to ensure that schemes provide an adequate level of protection to their members in timely manner and in line with national circumstances, maintaining a decent standard of living and providing appropriate income replacement, while always preventing those members from falling into poverty. When assessing adequacy, the Member State’s social protection system needs to be taken into account as a whole”* (MF, p.19).

On the basis of these definitions, the updated version of MF proposes to measure effective coverage and adequacy through seven indicators. They are:

1. Benefit reciprocity rate for the population (16-64) at risk of poverty before social transfers. This indicator is defined as the share of working age (16-64) individuals receiving any benefits (other than old-age or survivors’ benefits) among people at risk of poverty before social transfers by most frequent activity during income reference year (n-1).
2. Coverage of unemployment benefits for the short-term unemployed, defined as the share of people aged 16-64 registered in unemployment (for less than 1 month up to 11 months) receiving benefits.
3. Material and social deprivation rate by most frequent activity status of people aged 16-64 during the reference year (past 12 months).
4. Poverty rate after social transfers (AROP) by most frequent activity of people aged 16-64, during income reference year (n-1).
5. Impact of social transfers (excluding old-age or survivors’ benefits) by most frequent activity status of people aged 16-64, during the income reference year (n-1).
6. Relative median at-risk-of-poverty gap by most frequent activity status of people aged 16-64 during income reference year (n-1).
7. At-risk-of-poverty threshold (in Euro or in national currency) and median equivalised income among people at risk of poverty by most frequent activity status.

The first two indicators regard effective coverage. The first one measures that dimension through a blanket approach. Specifically, since it is difficult to identify the proportion of persons receiving benefits for each type of risk (sickness, unemployment, maternity, etc.), this first indicator covers all types of benefits given at individual level and reflects the extent to which social protection systems can reach and cover population groups that are at risk of poverty before social transfers.

The second indicator follows another logic. It measures the effective coverage exclusively focusing on the proportion of individuals which receive benefits in case of risk materialisation. Specifically, the indicator is defined as the share of people aged 16-64 registered in unemployment (for fewer than 12 months) receiving benefits. As it is recognised in the MF, the same indicator could be also computed as regards old-age benefits, but in this other case the coverage rate is generally higher across all Member States. Thus, the indicator would be scarcely informative.

However, following this same logic, some specific indicators could be developed and then included in the MF to measure the effective coverage of other specific risk materialisation, such as sickness, maternity and parental leave. Certainly, this depends on the information currently available. As said about the first indicator, the MF itself recognises that the usual surveys often do not allow researchers to observe the population for which the specific risks materialise. EU-SILC and EU-LFS do not provide information about the periods of sickness, maternity

or parental leave. Nevertheless, because of the importance recognised at the European level of access to social protection, the EU-SILC could be enhanced by including targeted questions in the corresponding questionnaires to precisely gather information on the months spent in sickness, maternity or parental leave in addition to the information about the respondents' salary and social benefits received during those months.

Meanwhile, some efforts were made recently to measure the coverage of maternity and parental leave and could be further exploited to develop indicators in this vein for the MF. Let us give just two examples. Combining macro policy data and micro survey data, Bártová and Emery (2018) constructed specific maternity and parental-leave indicators for European countries. Information on each country's maternity and parental leave policy was collected from the Annual Reviews produced by the International Network for Leave Policy and Research (LP&R) and the Mutual Information System on Social Protection (MISSOC) database. These data were then imputed to an EU-SILC sample of women of childbearing age and therefore 'at risk' of giving birth. By so doing, the distribution of social rights to parenting leave across the whole population that is realistically subject to the possibility of experiencing the social need was observable.

Similarly, O'Brien, Connolly, and Aldrich (2020) simulated eligibility for paid and unpaid statutory parental leave (jointly) across populations of 'potential' parents (people aged 20-49 years) in the EU-28. The first stage of this study involved the selection of the target parental leave policy for each of the Member States and detailed mapping of the eligibility rules. This was followed by the second stage, whereby policy rules with regard to eligibility were applied to random samples from EU-LFS and EU-SILC for all Member States using microsimulation. This enabled the identification of all those who would be eligible for parental leave at the time of the survey according to the parental leave policy rules of the country of residence if they had a new-born child.

The reasoning one can develop to review and enhance adequacy measurement is not dissimilar to that so far developed for effective coverage. The logic underlying the indicators included in the MF to quantify adequacy (see the above indicators, numbers 3-7) is de facto equivalent to that of the first indicator used for measuring effective coverage. Adequacy is systematically measured via income-poverty indicators. These indicators are referred to all working-age individuals (i.e., people aged 16-64) and broken down by most frequent activity³ during income reference year (n-1). This strategy allows the measurement of the extent to which individuals with different economic positions are (or are not) capable of reaching certain standards of living. By so doing, we know little about the adequacy of a certain social benefit when a risk materialises i.e., when individuals cannot rely on their regular job's income. During the period of unemployment, people must be adequately protected by unemployment benefits as well as retired people must be adequately protected by pensions. Indeed, since unemployed is one of the categories included among 'most frequent activities', we have information about poverty risks of those individuals who interrupted their jobs due to unemployment. Nevertheless, as the MF (p.55) itself recognises, the approach based on the most frequent status during the year can lead to some misrepresentation of the benefits received by people in different labour market statuses. In fact, in the space of a year, a person may have been in different labour market statuses (e.g., unemployed for 7 months and on a temporary contract for 5 months). In that case, considering the most frequent status during the year wrongly attributes the social benefits they received as those of a temporary worker, rather than those of an unemployed person.

Consequently, some new indicators should be developed to measure to what extent social programs are capable of adequately protecting individuals during the sole period of job interruption due to different kinds of risk materialisation. The next section precisely makes some proposals in this regard.

³ Employment, non-employment, unemployment, retired, other (former name: inactive persons).

3 Measuring adequacy via the proportion of individuals not at risk of poverty who stopped working

Extensive literature has been produced on whether social programmes can adequately protect individuals in need. In this regard, the seminal work by Esping-Andersen (1990) is particularly relevant. Indeed, his de-commodification index is precisely aimed at gauging to what extent social programmes allow citizens to maintain their income levels if they interrupt their careers. The idea is that the higher the de-commodification index, the higher the decoupling of livelihood from income earned in the labour market.

Esping-Andersen's (1990) de-commodification index as well as its refinements (Scruggs and Allan, 2006; Scruggs et al., 2014) are based on social policy structure. This approach is theoretically grounded precisely because it allows an estimation of the extent to which social policies and, more generally, welfare states contribute to the de-commodification process. Esping-Andersen (1990) developed his de-commodification index by considering five different characteristics (replacement rate, qualifying period, waiting days, duration of benefit, and coverage ratio) in three core welfare state programmes: unemployment benefits, sickness benefits, and state pensions. The respective scores obtained for the three programmes are added up to obtain the total de-commodification score of each welfare state.

Nonetheless, such a social policy approach prevents an analysis of the de-commodification outcomes. Specifically, focusing on social policy structure, one cannot know how many people can maintain their income levels when they stop working.

Accordingly, Podestà and Marzadro (2017) proposed an operationalisation of those outcomes starting from the fact that Esping-Andersen's (1990) definition of de-commodification presents a semantic affinity with the notion of relative poverty introduced by Townsend (1979). Both concepts refer to 'a socially acceptable standard of living'. If relative poverty has to do with the incapacity to achieve 'a socially acceptable standard of living', de-commodification denotes the extent to which social rights permit people to make and maintain their living standards at a socially acceptable level independent of market forces (Esping-Andersen, 1990).

Consequently, Podestà and Marzadro (2017) conceptualised the de-commodification outcomes referring to the proportion of individuals who have interrupted their job activity, but, thanks to social protection, have been able to maintain a socially acceptable standard of living. Assuming that a decommodified individual equates to an adequately protected person, one can then assert that the adequacy of welfare programmes corresponds to the proportion of individuals who have stopped working but remained capable of attaining satisfactory living conditions.

Moreover, this definition of adequacy is consistent with that adopted by the MF: "*Member States are recommended to ensure that schemes provide an adequate level of protection to their members in timely manner and in line with national circumstances, maintaining a decent standard of living*".

Therefore, the approach proposed by Podestà and Marzadro (2017) is not only useful from a conceptual point of view but also from an empirical standpoint. Indeed, exploiting the indicator officially used at the EU level to monitor income poverty, i.e., the at-risk-of-poverty rate, these authors constructed national indicators and calculated them for 16 Western European countries.

Accordingly, strictly following Podestà and Marzadro's methodology, new indicators of adequacy of social programmes are developed, and calculations are expanded for the EU27. Their methodology is hereafter summarised in three steps. For each step, it is then clarified how to derive and construct relevant indicators of adequacy.

1] *Reversing the at-risk-of-poverty rate*. The de-commodification outcomes refer to the proportion of individuals *capable* of maintaining an acceptable standard of living regardless of their wage relationship. As the at-risk-of-poverty rate estimates the percentage of citizens *unable* to reach an acceptable standard of living, the rate was "inverted" to calculate a "not-at-risk-of-poverty rate" as an indicator of de-commodification outcomes. More precisely, it accounts for the national percentages of individuals with an equivalised disposable income⁴ (after

⁴ Consistent with the Eurostat terminology, the equivalised disposable income is the total income of a household, after tax and other deductions, that is available for spending or saving, divided by the number of household members converted into equivalised adults; household members are equivalised or made equivalent by weighting each according to their age, using the so-called modified OECD

social transfers) above the poverty threshold (set at 60% of the national median equivalised disposable income) who have stopped working. Having assumed that a decommodified individual equates to an adequately protected person, the same national percentages can thus be adopted to measure the adequacy of social programmes.

2] *Selecting pertinent groups of individuals.* The above-mentioned de-commodification rates were computed by Podestà and Marzadro (2017) for specific groups of individuals who have interrupted their job activity. Although job interruptions may be due to various factors, e.g., unemployment, retirement, sickness, maternity, etc., the “not-at-risk-of-poverty rates” were only calculated for those groups of individuals for whom EU-SILC provides information about the period of job interruption as well as the income perceived during that period. The objective was to calculate the proportion of individuals who have stopped working but, thanks to social protection, were not at risk of poverty. As pointed out in the previous section, the lack of information in the EU-SILC dataset about the months spent in sickness, maternity or parental leave – i.e., three out of the six social protection branches discussed in the MF – prevented a consideration of those persons who had stopped working because of these reasons. Accordingly, the analysis by Podestà and Marzadro (2017) focused on unemployed persons and retirees only. More precisely, given that EU-SILC provides annual data on individual income, persons who had been actively seeking work or had retired during the entire income reference period (i.e., 12 months) were considered. This allowed researchers to examine unemployed and retired persons with an individual disposable income entirely composed of social transfers (unemployment benefits, on the one hand, and public pension, on the other) and then estimate how many of these individuals had an equivalised disposable income above the poverty threshold⁵. Therefore, two not-at-risk-of-poverty rates were computed:

- (a) the percentage of retired persons (during the entire income reference period) not at risk of poverty, and
- (b) the percentage of unemployed persons (during the entire income reference period) not at risk of poverty⁶.

These two rates can be suitably used as complementary indicators of the adequacy of public old-age pensions and unemployment benefits, respectively.

3] *Neutralising the family effect.* These two indicators may provide a biased picture of the degree to which unemployment benefits and public pensions provide adequate protection for unemployed persons and retirees. This bias is linked to its calculation referring to equivalised (household) income attributed to each household member. Consequently, the individuals not at risk of poverty are affected by the overall family income and different income sources. Therefore, in order to quantify the role of the sole public protection in decommodifying people who stop working for unemployment or retirement, Podestà and Marzadro (2017) simulated that these groups of individuals leave their households to live alone and re-calculated the relevant proportion of individuals not at risk of poverty. Specifically, households in which one or more unemployed or retired persons were present with an individual income entirely composed of social transfers were split to form new ones. Hence, the simulation leads to two groups, one consisting exclusively of a single jobless or retired individuals and another composed of the remaining members of the split families⁷.

These exercises were evidently carried out for the two groups separately. Starting with retirees, all households with one or more persons in this situation were selected from the sample of each country. These households were then split to form new ones: those composed of one single retired person, and those composed of the

equivalence scale. For more details, see: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Equivalised disposable income](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Equivalised_disposable_income).

⁵ Considering persons who had become unemployed during the entire income reference period allows researchers to avoid misrepresentation due to the approach based on the most frequent status during the year (see the preceding section). However, this does not mean that all the unemployed persons analysed received a subsidy for all the 12 months.

⁶ Considering individuals who have been actively seeking work during the whole income reference period (i.e., 12 months) may only provide a partial picture of the whole group of unemployed people. Moreover, this prevents a large number of observations. Consequently, one may also take into account those who have been unemployed for less than 12 months. However, to isolate the role of public transfers and to avoid misrepresentation due to the approach based on the most frequent status during the year, one must ignore their job income and spread the sum of received social benefits over the entire year. For instance, if a person has received benefits for 3 months of unemployment, the amount of those benefits should be re-proportioned as if that person had been unemployed for the entire year.

⁷ For a similar exercise, see Orsini and Spadaro (2007). This micro-simulation was an arithmetical one because it was conducted without modifying the behaviours of the individuals involved (Bourguignon and Spadaro, 2006).

remaining members of the split families. On the basis of this new household structure, the equivalised disposable income and the not-at-risk-of-poverty rate were re-calculated.

For example, if a household consisted of two individuals of which one was retired, through the simulation exercise we split it into two single households. The disposable income of each individual was at this point composed of her/his *personal* income plus an (equal) proportional part of the previous (and current) *household* income⁸. Clearly, in this case the equivalised disposable income of the two single households coincided with the disposable income of each individual because the equivalised household size was equal to 1.0. Obviously, this logic must be applied to each family including retired people to produce, as stated, a new equivalised disposable income distribution and a new not-at-risk-of-poverty rate (after social transfers).

The procedure was the same for unemployed persons. An example may help to clarify the micro-simulation procedure. Suppose that a family is composed of two employed and two unemployed persons. This family was divided into three households whose incomes coincide with the sum of the incomes earned by the members of the original family plus a proportional quota of the previous *household* income. The first family consists of the two employed members and its disposable income coincides with the sum of the two *personal* job incomes plus one half of the *household* income of the split household⁹. To equalise this disposable income, the denominator will be 1.5, i.e., the number of “equivalent adults” using the modified OECD equivalence scale, which is the sum of weights given to all members of the new household. The other two families are two single households respectively composed of each of the two unemployed persons. As in the previous example of retirees, their respective personal disposable incomes – entirely made up of public transfers – plus the proportion of the previous household income must be divided by 1.0 (Podestà and Marzadro, 2017: Appendix 1).

Remaining adherent with Podestà and Marzadro’s approach (2017), these micro-simulations can also be performed to estimate the adequacy of pension and unemployment benefits net of the family welfare.

⁸ New families are given a pro rata share of previous family income so that their incomes are not exclusively composed of personal income.

⁹ One half of the previous household income simply because there are now two members compared to the earlier four.

4 Results

This section presents the results of an application of the indicators introduced above to EU27 Member States. The application was performed using the EU-SILC database and covers the 2014-2020 period. For each country¹⁰ and each year, Tables 1-2 and 5-6 report the value of the indicators (%) and a precision measure: the relative confidence intervals (CI) at 95% level for all point estimates. The confidence intervals may be wide, especially for cells with low number of observations, leading to significant overlapping of estimates. In spite of this, in order to be able to compare the significant difference between two estimates, one would have to use specific statistical tests in addition to overlapping intervals. As in Antón and Grande (2022), this report aims to show estimates in a descriptive way highlighting trends and main features of the proposed indicators, thus, only point estimates are commented on.

Sub-section 4.1 reports the results of the adequacy of public pensions, and sub-section 4.2 the adequacy of unemployment benefits. Both sub-sections report firstly the actual figures of the indicator and secondly, the simulated figures, i.e., those obtained assuming that retirees and unemployed individuals respectively leave their households to live alone. Finally, Table 7 in the appendix shows the sample of retirees and unemployed by country and by year.

4.1 Adequacy of public pensions

The adequacy of public pensions measured by the percentage of retirees not at risk of poverty appears high if one looks at the actual figures (Table 1). Overall, regarding the EU27 average, more than eight European retirees out of ten (84.5%) have an equivalised income above the poverty threshold in 2020.

However, the variability among European Union Member States is not so low. For example, in 2020, France, Greece, Luxembourg and Slovakia were the countries with the highest proportion of retirees not at risk of poverty (more than 90%), whereas Bulgaria and the Baltic states (Estonia, Latvia and Lithuania) were the countries with the lowest proportions (less than 70%).

Comparing the percentages in 2020 with those of the previous years, the adequacy of public pensions shows a steady decrease in almost all countries, although not dramatically; in seven years the number of retirees not at risk of poverty decreased by about 4 percentage points in EU27.

Comparing the actual figures (Table 1) with the simulated ones (Table 2), a significant decrease in the levels of adequacy arises. Overall, the not-at-risk-of-poverty rate in EU27 falls by more than 30 percentage points, from 84.5% in the actual case to 49.3% in the simulated one in 2020. This is largely to be expected. By ignoring family relationships, retirees are protected by the sole public pension and thus more at risk of poverty.

This issue is strengthened by the fact that it is possible to observe lower adequacy of public pensions in the simulated situation than the actual one for each country.

Focusing on the simulated situation, Greece, Italy, Luxembourg and Spain show high percentages of retirees not at risk of poverty in 2020 (more than 70%); conversely, the Baltic states, Bulgaria, Slovenia and Czechia show the lowest rates (less than 30%) also in the simulations.

Furthermore, also through simulated figures, the adequacy of public pension tends to decrease across years, but more significantly than in the actual situation: the proportion of retirees not at risk of poverty falls from 61.0% in 2014 to 50.5% in 2020 in the EU27 average.

In European countries pension benefits show a clear gender gap: pension payments to women aged 65 and over were 25% lower, on average, than for men (OECD, 2021). Hence, Tables 3-4 give a brief overview of the adequacy levels of public pensions by gender. On average, the percentage of retirees not at risk of poverty – in the actual figure – is about 4 percentage points lower for women than for men in 2020 (Table 3). Almost all European countries show a gender gap in the adequacy levels of public pensions; some countries like Belgium, Hungary,

¹⁰ Malta presents a coding in 2019 and 2020 of two key variables for the calculation of the indicators proposed in this report. In particular, for the variables related to the number of months spent in retirement (PL085) and unemployment (PL080) the coding concerns the aggregation of "10-month," "11-month," and "12-month" response modes, not allowing the disaggregation of this information. For this reason, in the last two analytical years, Maltese who have been retired or unemployed for at least 10 months will be considered as such.

Italy and Spain exhibit negligible¹¹ differences, while Malta is the only country in 2020 where the percentage of retirees not at risk of poverty is higher for women than for men.

The simulated figures (Table 4) show an increase in the gender gap of the adequacy of public pensions: on average, the percentage of retirees not at risk of poverty is about 25 percentage points lower for women than for men in 2020. The gender gap is more pronounced in Austria, Belgium, the Netherlands and Poland (greater than 30 percentage points), in contrast with Denmark, Estonia, Hungary and Latvia (lower than 10 percentage points).

The EU27 trend in this gender gap is different depending on whether we consider the actual or simulated situation: on the one hand in the actual figure the gender gap tends to increase although the intensity is not wide (2.9% in 2014 *versus* 3.7% in 2020); on the other hand in the simulated figure the gender gap remains fairly stable over the years and then decreases slightly in 2020.

Comparing the gender gap between the actual and simulated figures, it is worth mentioning the fact that the majority of the Member States show an increase in the gender gap in the adequacy of public pensions after the simulations. For instance, countries like Austria, Belgium, Malta, the Netherlands exhibit an increase in the gender gap of more than 30 percentage points, while Baltic States are the only countries that exhibit a narrowing of this gap.

¹¹ To test whether there is no statistical difference, we would have to resort to ad hoc statistical tests. As this is not the main purpose of the report we simply comment on a difference of one percentage point or less as “negligible”.

Table 1 Retirees not at risk of poverty in EU27, by Member State (2014-2020) - Actual figures

	2014		2015		2016		2017		2018		2019		2020	
	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)
Austria	85.6	(84.4;86.9)	87.1	(85.9;88.3)	87.8	(86.7;89.0)	87.9	(86.7;89.0)	87.1	(85.9;88.3)	85.8	(84.6;87.1)	85.8	(84.5;87.0)
Belgium	87.0	(85.7;88.3)	87.7	(86.4;88.9)	86.7	(85.4;88.0)	86.1	(84.9;87.4)	85.8	(84.5;87.1)	86.6	(85.4;87.8)	83.8	(82.5;85.0)
Bulgaria	78.8	(77.5;80.2)	69.9	(68.4;71.5)	75.3	(74.1;76.5)	67.4	(66.1;68.7)	71.3	(70.0;72.5)	65.4	(64.1;66.7)	61.9	(60.6;63.2)
Croatia	81.1	(80.0;82.3)	78.0	(76.9;79.1)	78.1	(77.1;79.2)	75.6	(74.5;76.7)	75.4	(74.3;76.4)	73.9	(72.8;75.0)	72.4	(71.3;73.5)
Cyprus	78.5	(76.8;80.3)	83.4	(81.8;84.9)	80.1	(78.5;81.8)	78.2	(76.5;79.9)	78.6	(76.9;80.2)	75.1	(73.3;76.8)	77.0	(75.3;78.7)
Czechia	93.2	(92.5;93.9)	92.5	(91.8;93.3)	91.9	(91.2;92.6)	89.2	(88.3;90.0)	85.7	(84.8;86.6)	83.2	(82.3;84.2)	85.0	(84.1;86.0)
Denmark	89.8	(88.5;91.0)	91.1	(89.9;92.2)	91.1	(90.1;92.2)	91.5	(90.4;92.5)	90.7	(89.6;91.7)	90.7	(89.7;91.8)	88.5	(87.3;89.7)
Estonia	64.2	(62.5;66.0)	59.4	(57.6;61.2)	54.3	(52.5;56.2)	53.6	(51.8;55.3)	45.5	(43.6;47.3)	47.8	(46.0;49.7)	50.3	(48.4;52.1)
Finland	84.1	(83.0;85.2)	86.2	(85.1;87.2)	87.7	(86.7;88.7)	87.6	(86.6;88.6)	86.4	(85.4;87.5)	85.3	(84.2;86.4)	85.5	(84.4;86.6)
France	92.5	(91.8;93.1)	92.9	(92.3;93.6)	92.9	(92.3;93.6)	92.8	(92.1;93.4)	92.6	(91.9;93.3)	91.1	(90.3;91.8)	90.6	(89.9;91.4)
Germany	83.3	(82.5;84.2)	83.0	(82.1;83.9)	81.9	(81.0;82.8)	82.5	(81.7;83.4)	81.4	(80.4;82.3)	81.6	(80.7;82.5)	80.0	(79.3;80.8)
Greece	88.6	(87.7;89.4)	89.3	(88.6;89.9)	90.3	(89.8;90.9)	90.5	(90.0;91.0)	91.3	(90.9;91.8)	91.1	(90.6;91.6)	90.0	(89.4;90.6)
Hungary	95.2	(94.6;95.7)	95.0	(94.4;95.6)	93.0	(92.3;93.7)	91.0	(90.2;91.7)	90.1	(89.3;90.9)	89.1	(88.2;90.0)	85.5	(84.5;86.6)
Ireland	87.9	(86.2;89.5)	84.1	(82.4;85.9)	83.1	(81.4;84.9)	85.1	(83.4;86.7)	80.2	(78.2;82.1)	81.7	(79.8;83.6)	83.4	(81.7;85.1)
Italy	89.6	(89.0;90.2)	88.9	(88.3;89.6)	87.2	(86.5;87.8)	87.3	(86.7;87.9)	88.0	(87.4;88.6)	88.1	(87.5;88.7)	86.5	(85.8;87.3)
Latvia	70.6	(69.1;72.0)	63.0	(61.4;64.6)	58.0	(56.3;59.6)	56.1	(54.4;57.8)	50.7	(48.9;52.4)	46.7	(44.9;48.5)	53.1	(51.3;54.9)
Lithuania	77.7	(76.2;79.1)	72.3	(70.7;73.9)	69.3	(67.6;71.0)	63.2	(61.4;64.9)	58.2	(56.4;60.1)	64.7	(62.9;66.4)	60.1	(58.3;61.9)
Luxembourg	96.0	(94.9;97.1)	94.1	(92.7;95.4)	91.9	(90.4;93.4)	90.8	(89.3;92.3)	92.8	(91.4;94.1)	92.4	(91.1;93.8)	93.5	(92.0;94.9)
Malta	84.5	(82.7;86.2)	81.2	(79.3;83.1)	78.7	(76.8;80.6)	77.7	(75.8;79.5)	76.0	(74.0;78.0)	75.8^a	(73.8;77.7)	77.6^a	(75.7;79.5)
Netherland	92.5	(91.6;93.4)	93.7	(92.9;94.5)	90.2	(89.4;91.0)	89.1	(88.3;89.9)	88.0	(87.2;88.9)	87.7	(87.0;88.5)	88.2	(87.4;89.0)
Poland	89.3	(88.6;90.0)	88.8	(88.1;89.6)	87.7	(86.9;88.5)	86.7	(85.9;87.5)	85.0	(84.2;85.7)	82.1	(81.4;82.8)	81.5	(80.7;82.3)
Portugal	87.2	(86.1;88.2)	85.5	(84.6;86.5)	84.0	(83.1;84.9)	84.8	(84.0;85.7)	84.3	(83.5;85.1)	84.8	(84.1;85.6)	84.3	(83.4;85.1)
Romania	87.3	(86.4;88.1)	84.2	(83.3;85.2)	84.1	(83.1;85.0)	83.9	(82.9;84.8)	80.5	(79.4;81.5)	78.5	(77.4;79.5)	77.7	(76.7;78.8)
Slovakia	93.3	(92.4;94.1)	93.8	(93.0;94.6)	94.1	(93.4;94.9)	92.4	(91.5;93.2)	93.0	(92.2;93.8)	91.4	(90.5;92.3)	90.4	(89.5;91.4)
Slovenia	85.0	(84.2;85.9)	84.1	(83.2;85.0)	83.3	(82.3;84.2)	84.1	(83.2;85.0)	81.8	(80.8;82.8)	81.8	(80.8;82.7)	80.9	(79.9;81.9)
Spain	91.1	(90.2;91.9)	89.8	(88.9;90.6)	88.7	(87.9;89.6)	87.2	(86.4;88.1)	86.8	(85.9;87.7)	87.5	(86.7;88.4)	85.1	(84.2;86.1)
Sweden	85.4	(84.1;86.7)	82.6	(81.2;84.0)	81.9	(80.5;83.4)	83.6	(82.2;85.0)	84.0	(82.6;85.4)	84.3	(82.9;85.7)	83.9	(82.5;85.3)
EU27	88.1	(87.9;88.3)	87.4	(87.3;87.6)	86.7	(86.5;86.9)	86.3	(86.1;86.5)	85.6	(85.4;85.8)	84.9	(84.7;85.1)	84.5	(84.3;84.7)

Source: Authors' analysis from EU-SILC. Note: ^a = people retired for at least 10 months.

Table 2 Retirees not at risk of poverty in EU27, by Member State (2014-2020) - Simulated figures

	2014		2015		2016		2017		2018		2019		2020	
	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)
Austria	58.5	(56.8;60.3)	61.8	(60.1;63.5)	61.6	(59.9;63.3)	59.6	(57.9;61.3)	60.0	(58.2;61.7)	60.0	(58.3;61.7)	59.2	(57.5;60.9)
Belgium	67.0	(65.2;68.7)	66.8	(65.1;68.6)	65.7	(63.9;67.5)	67.1	(65.3;68.8)	63.4	(61.6;65.2)	62.5	(60.9;64.2)	57.4	(55.7;59.0)
Bulgaria	50.3	(48.7;51.9)	39.3	(37.6;40.9)	45.7	(44.4;47.1)	37.2	(35.9;38.5)	42.5	(41.2;43.9)	33.2	(32.0;34.5)	29.4	(28.2;30.6)
Croatia	56.8	(55.3;58.3)	53.8	(52.5;55.2)	55.0	(53.8;56.3)	50.5	(49.2;51.7)	44.5	(43.3;45.7)	42.3	(41.1;43.5)	35.7	(34.6;36.9)
Cyprus	45.3	(43.2;47.4)	50.8	(48.7;52.8)	52.0	(49.9;54.0)	49.2	(47.1;51.2)	45.9	(43.9;48.0)	40.9	(38.9;42.8)	40.1	(38.1;42.0)
Czechia	60.0	(58.7;61.3)	45.0	(43.7;46.4)	41.2	(39.8;42.5)	36.1	(34.8;37.3)	21.4	(20.3;22.4)	20.0	(19.0;21.1)	25.3	(24.1;26.4)
Denmark	33.4	(31.5;35.4)	33.5	(31.6;35.4)	34.7	(33.0;36.4)	39.9	(38.1;41.8)	36.8	(35.0;38.6)	39.2	(37.5;40.9)	38.5	(36.8;40.3)
Estonia	13.2	(12.0;14.5)	7.5	(6.5;8.4)	7.3	(6.3;8.2)	9.3	(8.3;10.4)	4.3	(3.5;5.0)	6.7	(5.8;7.7)	7.1	(6.1;8.1)
Finland	40.0	(38.5;41.5)	42.1	(40.6;43.6)	43.1	(41.6;44.6)	43.0	(41.5;44.5)	44.0	(42.4;45.5)	42.3	(40.8;43.9)	40.0	(38.4;41.5)
France	72.4	(71.3;73.5)	72.1	(71.0;73.2)	72.8	(71.7;73.9)	71.8	(70.7;72.9)	71.8	(70.7;73.0)	71.1	(70.0;72.2)	66.7	(65.5;68.0)
Germany	53.7	(52.5;54.9)	54.3	(53.1;55.5)	54.3	(53.2;55.5)	55.5	(54.4;56.7)	55.1	(53.9;56.3)	54.9	(53.7;56.1)	47.3	(46.4;48.2)
Greece	83.2	(82.2;84.2)	82.5	(81.7;83.4)	83.7	(83.0;84.3)	83.6	(83.0;84.2)	82.9	(82.3;83.5)	81.9	(81.2;82.6)	79.0	(78.2;79.8)
Hungary	85.6	(84.6;86.5)	84.4	(83.3;85.4)	78.3	(77.2;79.5)	74.6	(73.5;75.8)	69.3	(68.1;70.6)	63.3	(61.9;64.7)	66.7	(65.3;68.1)
Ireland	61.3	(58.9;63.8)	55.0	(52.6;57.4)	52.6	(50.2;54.9)	49.8	(47.4;52.1)	45.2	(42.7;47.6)	41.0	(38.6;43.4)	46.5	(44.2;48.7)
Italy	71.5	(70.6;72.4)	71.8	(70.9;72.8)	69.9	(69.0;70.8)	69.4	(68.5;70.2)	70.5	(69.7;71.4)	70.9	(70.0;71.7)	71.7	(70.7;72.7)
Latvia	27.8	(26.4;29.3)	19.9	(18.6;21.2)	15.5	(14.3;16.7)	14.8	(13.6;16.1)	14.2	(13.0;15.4)	13.8	(12.5;15.0)	13.7	(12.5;14.9)
Lithuania	44.0	(42.3;45.7)	38.1	(36.3;39.8)	32.5	(30.8;34.2)	27.7	(26.1;29.4)	21.3	(19.8;22.8)	23.3	(21.7;24.8)	20.2	(18.8;21.7)
Luxembourg	84.1	(82.1;86.1)	84.4	(82.3;86.5)	81.5	(79.4;83.6)	82.5	(80.5;84.5)	79.0	(76.9;81.2)	76.4	(74.2;78.5)	78.3	(75.9;80.7)
Malta	74.7	(72.7;76.8)	69.0	(66.8;71.3)	65.7	(63.5;67.9)	65.1	(63.0;67.2)	66.1	(63.9;68.3)	64.4^a	(62.0;66.3)	64.3^a	(62.1;66.5)
Netherland	53.1	(51.4;54.7)	53.5	(51.8;55.2)	54.3	(53.0;55.7)	54.8	(53.5;56.1)	56.5	(55.2;57.8)	55.8	(54.6;57.0)	54.1	(52.9;55.3)
Poland	69.9	(68.8;71.0)	68.9	(67.8;70.1)	65.4	(64.2;66.5)	62.0	(60.9;63.2)	57.9	(56.9;59.0)	53.6	(52.6;54.5)	51.6	(50.6;52.6)
Portugal	66.8	(65.4;68.2)	66.5	(65.2;67.8)	65.1	(63.9;66.3)	65.6	(64.5;66.7)	62.2	(61.1;63.3)	62.2	(61.1;63.2)	61.7	(60.5;62.8)
Romania	79.1	(78.1;80.1)	76.2	(75.1;77.3)	73.6	(72.5;74.8)	70.9	(69.8;72.1)	61.0	(59.7;62.3)	51.3	(50.0;52.6)	53.5	(52.2;54.8)
Slovakia	66.4	(64.7;68.0)	61.6	(60.0;63.2)	66.6	(65.1;68.2)	59.6	(58.0;61.1)	54.4	(52.9;56.0)	45.9	(44.3;47.5)	44.3	(42.8;45.9)
Slovenia	44.0	(42.8;45.2)	40.7	(39.4;41.9)	40.5	(39.3;41.7)	37.2	(36.0;38.4)	32.7	(31.6;33.9)	30.2	(29.1;31.3)	29.3	(28.2;30.5)
Spain	86.7	(85.7;87.7)	85.7	(84.7;86.7)	81.0	(80.0;82.1)	74.4	(73.3;75.6)	72.9	(71.7;74.0)	74.8	(73.8;75.9)	74.6	(73.5;75.7)
Sweden	45.0	(43.2;46.9)	40.0	(38.2;41.8)	37.3	(35.5;39.1)	38.6	(36.8;40.5)	37.4	(35.6;39.2)	38.5	(36.6;40.4)	37.3	(35.4;39.1)
EU27	61.0	(60.8;61.3)	59.3	(59.0;59.5)	58.9	(58.7;59.2)	57.8	(57.5;58.1)	55.6	(55.3;55.8)	53.3	(53.0;53.5)	50.5	(50.3;50.8)

Source: Authors' analysis from EU-SILC. Note: ^a = people retired for at least 10 months.

Table 3 Retirees not at risk of poverty in EU27, by Member State and gender (2014-2020) - Actual figures

	2014		2015		2016		2017		2018		2019		2020	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Austria	87.5	84.0	88.8	85.7	90.1	85.9	90.1	86.1	89.8	85.0	89.3	83.1	87.5	84.4
Belgium	86.5	87.5	86.8	88.6	85.9	87.4	86.5	85.8	85.9	85.7	86.9	86.3	84.0	83.5
Bulgaria	83.4	75.8	79.6	63.5	83.2	70.0	76.7	61.3	80.0	65.5	73.3	60.3	70.7	56.2
Croatia	82.2	80.2	79.7	76.6	80.8	76.0	78.2	73.4	78.3	73.0	77.4	71.0	75.8	69.6
Cyprus	82.3	75.3	86.5	80.7	83.3	77.3	80.9	75.9	80.2	77.1	76.9	73.5	78.0	76.1
Czechia	95.6	91.6	95.9	90.4	95.9	89.4	94.6	85.7	92.4	81.2	90.1	78.5	91.4	80.7
Denmark	90.9	88.9	92.3	90.1	92.8	89.8	91.1	91.8	90.3	90.9	91.6	90.0	89.7	87.5
Estonia	76.1	58.3	72.4	53.0	68.5	47.1	66.1	47.2	55.8	40.3	58.9	42.3	62.5	43.9
Finland	89.1	80.5	91.1	82.5	92.1	84.5	91.9	84.4	90.7	83.2	88.9	82.5	87.5	83.9
France	93.4	91.6	93.8	92.1	94.5	91.6	93.8	91.8	93.4	91.9	91.8	90.4	91.7	89.8
Germany	85.5	81.3	85.0	81.2	84.1	79.9	84.7	80.5	82.8	80.0	83.7	79.6	81.6	78.8
Greece	89.2	87.8	90.1	88.3	91.0	89.5	91.0	89.9	91.4	91.2	91.5	90.6	90.8	89.0
Hungary	95.4	95.0	95.2	94.9	94.4	92.2	92.3	90.2	92.3	88.8	92.0	87.4	84.9	85.9
Ireland	88.6	86.6	84.6	83.3	83.0	83.2	85.3	84.8	82.7	77.2	84.4	78.8	85.9	81.0
Italy	89.5	89.6	88.9	89.1	87.4	86.9	86.8	87.9	87.4	88.7	86.9	89.6	86.2	86.8
Latvia	80.8	65.5	73.5	57.9	67.1	53.6	65.9	51.3	58.0	47.2	52.4	44.0	59.7	49.8
Lithuania	84.2	74.6	80.4	68.5	79.0	64.6	74.2	57.8	70.2	52.4	77.7	58.4	71.3	54.6
Luxembourg	95.5	96.7	94.4	93.6	93.3	90.0	91.2	90.2	93.3	91.9	92.9	91.7	93.8	93.0
Malta	82.0	91.8	78.6	88.5	76.8	83.3	75.9	80.6	74.4	79.8	72.9 ^a	81.8 ^a	75.2 ^a	83.0 ^a
Netherland	93.6	91.5	93.9	93.5	90.6	89.9	89.6	88.7	88.0	88.0	88.4	87.1	88.9	87.6
Poland	92.6	87.3	91.8	87.0	91.5	85.4	90.0	84.6	89.3	82.3	87.0	79.1	87.5	77.8
Portugal	87.7	86.7	86.5	84.7	84.4	83.7	85.4	84.3	85.7	83.1	85.3	84.4	86.0	82.8
Romania	90.3	85.2	87.2	82.2	88.4	81.1	87.6	81.2	84.4	77.6	83.1	75.1	82.1	74.6
Slovakia	94.6	92.5	95.6	92.7	95.3	93.4	94.0	91.3	94.3	92.2	93.8	89.8	92.5	89.0
Slovenia	89.1	82.2	88.7	80.9	87.7	80.1	89.0	80.4	86.4	78.3	86.4	78.1	84.9	77.7
Spain	90.5	92.0	88.8	91.4	87.4	91.2	86.7	88.2	85.9	88.3	86.0	90.0	84.8	85.7
Sweden	90.3	81.4	87.2	78.7	87.1	77.7	88.1	79.9	88.3	80.3	88.3	81.0	88.8	79.7
EU27	89.7	86.7	89.0	86.0	88.5	85.1	88.0	84.8	87.3	84.1	86.8	83.3	86.0	82.3

Source: Authors' analysis from EU-SILC. Note: ^a = people retired for at least 10 months.

Table 4 Retirees not at risk of poverty in EU27, by Member State and gender (2014-2020) - Simulated figures

	2014		2015		2016		2017		2018		2019		2020	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Austria	80.0	40.4	81.3	45.1	80.6	44.7	80.8	41.2	81.0	42.5	80.6	43.4	78.7	43.6
Belgium	81.5	52.0	81.9	51.6	80.2	51.5	81.1	53.2	77.9	49.4	78.5	47.2	73.5	42.1
Bulgaria	65.8	40.4	59.8	26.2	65.0	33.4	55.8	25.3	59.5	31.6	47.5	24.3	43.1	20.8
Croatia	69.2	46.7	68.3	41.8	69.0	43.3	65.0	37.8	59.2	32.0	57.0	29.7	51.9	25.7
Cyprus	63.3	30.3	69.0	35.2	70.2	35.9	66.9	33.9	61.5	33.2	55.5	28.9	54.9	27.6
Czechia	78.0	48.8	60.9	35.3	57.0	31.2	50.3	27.0	29.6	16.0	27.5	15.0	33.6	17.9
Denmark	41.0	26.0	39.7	27.7	40.9	29.0	45.4	34.9	41.2	33.0	44.1	34.8	41.8	35.8
Estonia	17.0	11.0	10.7	5.5	9.5	5.9	12.9	7.1	5.8	3.3	8.6	5.6	9.3	5.7
Finland	55.8	25.4	57.1	28.1	57.3	29.3	56.8	29.6	59.4	29.4	57.0	28.8	55.5	27.6
France	86.5	59.8	86.7	59.3	87.9	59.5	86.4	58.6	85.6	59.5	84.3	59.1	79.8	53.9
Germany	75.3	31.5	75.4	33.3	74.1	35.1	74.5	36.6	73.3	36.7	72.8	36.2	59.8	36.9
Greece	90.7	73.7	90.5	72.3	91.1	74.2	90.9	74.5	90.8	72.9	90.5	71.3	88.6	67.5
Hungary	90.4	82.7	90.2	81.1	84.7	74.7	80.2	71.5	77.7	64.6	70.4	59.5	69.3	65.3
Ireland	67.2	50.8	62.5	42.3	60.9	39.9	59.8	36.7	55.1	33.0	50.1	30.3	59.3	33.2
Italy	83.7	56.9	83.5	57.2	81.9	56.5	82.3	56.3	83.6	57.1	84.1	57.5	85.1	57.9
Latvia	37.4	23.4	29.0	15.8	22.6	12.3	21.3	11.9	20.9	11.3	19.2	11.3	18.6	11.4
Lithuania	60.1	34.4	53.4	29.4	47.5	24.2	39.7	21.4	31.8	15.6	34.3	17.2	29.8	15.1
Luxembourg	92.3	67.4	91.1	73.0	91.4	66.3	92.2	67.7	90.7	60.2	89.1	56.6	90.0	60.4
Malta	82.1	53.2	77.1	47.4	74.1	45.7	78.2	43.2	75.6	42.5	73.6 ^a	43.1 ^a	72.8 ^a	44.5 ^a
Netherland	75.2	33.2	74.7	33.8	74.2	37.3	73.8	38.7	75.9	39.7	74.8	39.5	73.3	36.9
Poland	84.8	60.7	83.4	60.1	81.4	55.4	79.7	51.1	75.1	47.6	72.3	42.4	71.7	39.7
Portugal	77.8	56.8	76.7	57.1	75.9	55.1	77.0	55.1	73.8	51.6	73.9	51.8	74.0	50.4
Romania	90.1	70.8	87.6	67.4	85.6	64.4	83.5	61.1	75.3	49.6	64.6	40.7	66.8	42.8
Slovakia	75.6	61.5	69.4	57.2	76.3	61.0	68.5	53.8	65.0	47.5	56.1	39.3	53.3	38.6
Slovenia	55.4	34.9	51.2	32.4	49.4	33.2	45.9	30.0	41.3	25.7	37.7	23.8	36.1	23.6
Spain	93.3	74.6	92.8	72.8	89.1	67.1	83.9	58.9	83.3	55.6	85.0	57.8	84.2	59.0
Sweden	63.2	27.8	56.7	23.9	54.3	20.8	54.3	23.6	52.6	22.2	53.3	24.1	51.8	23.5
EU27	75.1	48.7	73.4	46.8	73.0	46.6	71.9	45.4	69.8	43.0	67.7	40.8	64.5	38.7

Source: Authors' analysis from EU-SILC. Note: ^a = people retired for at least 10 months.

4.2 Adequacy of unemployment benefits

Turning to the adequacy of unemployment benefits (Table 5), firstly, one can observe a significant reduction of adequacy with respect to the public pension case. Overall, the percentage of unemployed individuals not at risk of poverty is more than 30 percentage points lower than that estimated for retirees (49.3% vs 84.5%). Such a difference is attributable to different reasons. First, unemployment benefits are usually less generous than old-age pensions. Second, while retired persons generally receive pensions (or income) during the 12 months of reference, the coverage rate of the unemployed typically decreases with time spent in unemployment (Scruggs and Allan, 2006; Maquet et al., 2016).

Besides this, the adequacy of unemployment benefits does not appear to be uniform across European countries. Bulgaria (33.2%), Czechia (33.7%), Lithuania (38.8%), Romania (37.8%) and Sweden (35.6%) are the countries that show the lowest not-at-risk-of-poverty rates for the unemployed in 2020, and even if we look at previous waves, Germany is the country that consistently exhibits the lowest percentage of unemployed not at risk of poverty, except in 2020. The rest of European countries range in 2020 between 39.5 percentage points in the Netherlands and 63.0 percentage points in Ireland.

On average, the percentage of the unemployed not at risk of poverty remains quite constant over time, although the rates of EU27 decrease significantly in 2018 and 2019 with a sharp recovery in 2020.

Comparing the actual figures (Table 5) with the simulated ones (Table 6), one can observe a pattern similar to that noted for public pensions. On average, the not-at-risk-of-poverty rate computed for the simulated situation is significantly lower than that estimated for the actual case (7.5% versus 49.3% in 2020). This result reinforces the idea that family makes a significant contribution to helping people who stop working (due to retirement or unemployment) to maintain an acceptable standard of living.

Furthermore, once again, relevant differences arise across countries. Austria, Belgium, Denmark, France and Ireland are the countries with the highest rates (more than 15.0%) in 2020. Conversely, in Croatia, Poland and Slovenia the not-at-risk-of-poverty rate of the unemployed is less than 2%, and in Slovakia unemployment benefits do not guarantee acceptable standard of living to the unemployed¹².

To sum up, if one looks at unemployed people who live alone, the not-at-risk-of-poverty rate is undeniably low. In this case, fewer than one in ten unemployed people have an equivalised income above the poverty line. This means that, if taken alone, unemployment benefits are found to be scarcely effective in protecting individuals seeking work.

On average, the percentage of unemployed not at risk of poverty decreases gradually over time. More precisely, after a significant reduction between 2014 and 2015, the rate remains quite stable over the years.

¹² The simulations show that none of the 302 unemployed (Table A in the appendix) in Slovakia have an income, after social transfer, above the poverty line. Consequently, the not-at-risk-of-poverty rate of the public pension is zero and the confidence intervals are negligible.

Table 5 Unemployed not at risk of poverty in EU27, by Member States - Actual figures

	2014		2015		2016		2017		2018		2019		2020	
	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)
Austria	55.0	(48.2;61.8)	57.1	(50.5;63.7)	51.9	(44.9;59.0)	43.1	(36.2;50.0)	46.7	(40.0;53.4)	55.4	(48.4;62.4)	48.0	(41.0;55.0)
Belgium	52.3	(48.1;56.5)	57.7	(53.5;61.9)	52.0	(47.4;56.6)	48.0	(43.5;52.6)	46.5	(41.6;51.4)	47.2	(42.0;52.3)	45.0	(39.7;50.4)
Bulgaria	45.9	(42.7;49.2)	42.6	(39.3;45.9)	41.5	(38.7;44.3)	34.4	(31.3;37.5)	38.6	(35.4;41.9)	37.0	(33.5;40.5)	33.2	(29.6;36.9)
Croatia	52.9	(50.2;55.5)	54.0	(51.6;56.3)	52.0	(49.6;54.4)	50.5	(48.0;53.0)	49.3	(46.8;51.8)	50.8	(47.9;53.7)	51.2	(48.1;54.3)
Cyprus	62.7	(58.8;66.5)	51.9	(48.2;55.7)	60.1	(56.3;63.9)	58.5	(54.2;62.9)	54.9	(50.0;59.8)	61.1	(55.6;66.7)	59.0	(52.9;65.2)
Czechia	46.2	(40.8;51.7)	43.9	(38.3;49.4)	39.9	(34.2;45.7)	44.9	(38.3;51.5)	38.4	(31.2;45.7)	38.6	(29.9;47.3)	33.7	(24.4;42.9)
Denmark	63.2	(55.5;71.0)	53.3	(45.7;61.0)	56.0	(47.8;64.1)	49.1	(41.0;57.1)	44.1	(34.2;54.1)	46.1	(37.3;54.9)	51.1	(43.1;59.1)
Estonia	39.2	(34.0;44.5)	34.2	(27.9;40.6)	33.4	(27.1;39.8)	47.6	(41.7;53.6)	37.9	(30.3;45.5)	41.3	(33.8;48.9)	45.3	(36.6;53.9)
Finland	48.3	(44.2;52.4)	55.0	(51.0;59.1)	54.0	(50.2;57.8)	56.4	(52.4;60.4)	56.8	(52.5;61.0)	48.6	(43.6;53.5)	45.1	(39.7;50.5)
France	65.3	(62.5;68.2)	58.6	(55.1;62.1)	57.6	(54.0;61.2)	56.0	(52.4;59.7)	58.8	(54.9;62.6)	56.0	(52.2;59.8)	56.5	(52.5;60.5)
Germany	25.8	(22.5;29.0)	27.5	(24.2;30.7)	25.4	(22.2;28.6)	25.7	(22.3;29.1)	25.3	(21.4;29.1)	20.7	(16.8;24.7)	46.3	(42.9; 49.7)
Greece	54.0	(51.9;56.1)	54.5	(52.8;56.2)	51.8	(50.2;53.3)	52.9	(51.5;54.4)	54.9	(53.4;56.4)	52.7	(50.7;54.6)	52.7	(50.5;54.9)
Hungary	45.6	(41.8;49.4)	47.5	(42.4;52.5)	51.2	(45.9;56.6)	45.0	(38.8;51.2)	39.7	(32.6;46.9)	37.9	(30.6;45.1)	46.7	(39.5;53.9)
Ireland	60.3	(56.9;63.6)	54.2	(50.3;58.1)	55.9	(51.6;60.2)	56.1	(51.6;60.7)	48.0	(42.5;53.6)	65.2	(59.6;70.8)	63.0	(56.5;69.4)
Italy	48.9	(47.0;50.7)	51.6	(49.7;53.6)	52.9	(51.1;54.7)	55.4	(53.5;57.3)	52.3	(50.2;54.4)	47.5	(45.1;49.9)	47.9	(45.2; 50.8)
Latvia	44.8	(40.6;48.9)	41.6	(37.1;46.2)	39.5	(35.0;44.0)	34.6	(29.9;39.3)	32.6	(27.5;37.7)	33.7	(27.7;39.7)	41.2	(34.8;47.5)
Lithuania	33.2	(28.7;37.7)	37.5	(32.7;42.3)	37.6	(32.6;42.5)	36.6	(31.5;41.6)	34.9	(30.1;39.8)	39.6	(34.7;44.6)	38.8	(33.4;44.2)
Luxembourg	49.6	(41.7;57.5)	46.5	(38.3;54.6)	47.3	(39.8;54.8)	43.9	(36.8;51.0)	52.9	(45.1;60.8)	46.1	(38.1;54.1)	41.0	(31.3;50.7)
Malta	45.1	(38.4;51.9)	41.4	(33.8;49.0)	46.5	(37.2;55.7)	40.7	(29.7;51.6)	36.2	(25.6;46.8)	43.9^a	(29.0;58.8)	46.0^a	(32.9;59.1)
Netherland	58.9	(54.6;63.3)	58.7	(54.6;62.8)	51.5	(48.2;54.8)	50.2	(46.9;53.5)	48.5	(44.9;52.0)	42.7	(39.1;46.2)	39.5	(35.7;43.2)
Poland	53.7	(51.1;56.3)	52.5	(49.7;55.4)	49.8	(46.8;52.9)	54.4	(51.2;57.5)	59.3	(56.1;62.6)	59.8	(56.8;62.8)	57.4	(53.6;61.2)
Portugal	56.8	(54.2;59.4)	55.5	(53.2;57.8)	54.4	(52.2;56.6)	53.2	(51.0;55.5)	49.9	(47.7;52.1)	48.5	(46.2;50.9)	56.7	(54.0;59.5)
Romania	50.4	(44.2;56.6)	41.9	(35.9;47.9)	49.0	(42.8;55.3)	47.1	(39.8;54.4)	51.9	(44.6;59.3)	47.5	(38.5;56.5)	37.8	(28.9;46.8)
Slovakia	47.8	(44.2;51.4)	47.4	(43.7;51.0)	47.3	(43.5;51.0)	44.1	(40.2;48.0)	43.7	(39.2;48.1)	37.5	(32.8;42.2)	40.2	(34.6;45.8)
Slovenia	51.0	(48.4;53.5)	50.5	(47.8;53.2)	51.7	(48.5;54.9)	54.2	(50.9;57.6)	50.1	(46.9;53.4)	50.5	(47.1;54.0)	52.1	(48.5;55.8)
Spain	49.4	(47.7;51.2)	50.9	(49.1;52.7)	48.2	(46.4;50.0)	52.8	(51.0;54.5)	47.7	(45.6;49.7)	51.7	(49.7;53.7)	50.5	(48.4;52.6)
Sweden	56.8	(50.5;63.0)	56.4	(49.9;63.0)	44.4	(36.9;51.9)	45.5	(37.4;53.7)	39.1	(30.3;47.8)	37.3	(28.0;46.5)	35.6	(27.5;43.6)
EU27	49.6	(49.0;50.3)	49.4	(48.7;50.0)	48.0	(47.4;48.6)	49.2	(48.5;49.8)	47.5	(46.9;48.2)	46.5	(45.8;47.3)	49.3	(48.5;50.1)

Source: Authors' analysis from EU-SILC. Note: ^a = people unemployed for at least 10 months.

Table 6 Unemployed not at risk of poverty in EU27, by Member State - Simulated figures

	2014		2015		2016		2017		2018		2019		2020	
	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)
Austria	14.4	(9.6;19.2)	16.9	(11.9;21.9)	16.8	(11.5;22.0)	10.5	(6.2;14.8)	8.4	(4.7;12.2)	11.1	(6.7;15.4)	16.7	(11.4;21.9)
Belgium	18.8	(15.5;22.1)	18.5	(15.2;21.8)	18.1	(14.6;21.6)	19.7	(16.1;23.3)	17.4	(13.7;21.1)	23.3	(18.9;27.6)	19.8	(15.6;24.1)
Bulgaria	8.6	(6.7;10.4)	7.1	(5.4;8.8)	8.0	(6.5;9.6)	5.3	(3.9;6.8)	8.0	(6.2;9.8)	5.3	(3.7;6.9)	7.0	(5.0;9.0)
Croatia	1.1	(0.5;1.6)	1.0	(0.5;1.4)	1.4	(0.9;2.0)	1.4	(0.8;2.0)	1.3	(0.7;1.8)	2.0	(1.2;2.8)	1.8	(1.0;2.7)
Cyprus	7.1	(5.0;9.1)	6.8	(4.9;8.7)	5.7	(3.9;7.5)	4.7	(2.8;6.5)	5.1	(2.9;7.3)	6.1	(3.3;8.8)	6.4	(3.4;9.5)
Czechia	3.1	(1.2;4.9)	3.2	(1.3;5.2)	6.0	(3.2;8.8)	4.5	(1.8;7.3)	2.3	(0.0;4.5)	2.4	(0.0;5.2)	3.8	(0.1;7.6)
Denmark	21.9	(15.2;28.5)	16.4	(10.7;22.1)	21.1	(14.4;27.8)	19.1	(12.8;25.4)	21.2	(13;29.4)	17.3	(10.7;24)	16.9	(10.9;22.9)
Estonia	6.5	(3.9;9.1)	3.2	(0.9;5.6)	2.3	(0.3;4.3)	15.3	(11;19.6)	1.9	(0.2;4.0)	3.6	(0.7;6.4)	14.5	(8.4;20.6)
Finland	13.9	(11.1;16.8)	14.7	(11.9;17.6)	14.4	(11.7;17.1)	11.9	(9.3;14.5)	10.6	(8.0;13.3)	8.0	(5.3;10.6)	6.1	(3.5;8.7)
France	32.5	(29.6;35.3)	21.1	(18.2;23.9)	18.9	(16;21.7)	19.3	(16.3;22.2)	21.5	(18.3;24.7)	21.5	(18.3;24.6)	15.8	(12.9;18.7)
Germany	7.5	(5.5;9.4)	7.5	(5.6;9.4)	6.8	(5.0;8.7)	6.9	(4.9;8.9)	8.3	(5.9;10.8)	6.6	(4.2;9.0)	13.7	(11.4;15.9)
Greece	3.5	(2.7;4.3)	1.5	(1.1;1.9)	2.1	(1.6;2.5)	2.2	(1.8;2.7)	1.9	(1.5;2.3)	1.9	(1.4;2.4)	2.7	(2.0;3.4)
Hungary	3.6	(2.2;5.0)	5.4	(3.1;7.7)	5.0	(2.7;7.3)	7.6	(4.3;10.9)	4.4	(1.4;7.4)	9.0	(4.8;13.3)	4.8	(1.7;7.9)
Ireland	20.4	(17.7;23.2)	18.7	(15.6;21.8)	16.8	(13.6;20.1)	12.6	(9.6;15.7)	7.9	(4.9;10.9)	13.4	(9.4;17.4)	15.6	(10.7;20.5)
Italy	8.9	(7.8;9.9)	9.1	(8.0;10.2)	12.1	(10.9;13.3)	12.6	(11.3;13.9)	10.9	(9.6;12.2)	8.9	(7.5;10.3)	7.1	(5.6;8.5)
Latvia	6.6	(4.6;8.7)	6.2	(3.9;8.4)	3.7	(2.0;5.4)	4.5	(2.4;6.5)	3.6	(1.6;5.6)	7.0	(3.8;10.3)	3.4	(1.1;5.8)
Lithuania	4.7	(2.7;6.8)	6.8	(4.3;9.3)	5.9	(3.5;8.3)	9.0	(6.0;12)	6.9	(4.3;9.5)	8.0	(5.3;10.8)	6.3	(3.6;9.0)
Luxembourg	12.1	(6.9;17.3)	15.0	(9.1;20.8)	16.2	(10.6;21.7)	12.6	(7.8;17.3)	14.6	(9.0;20.1)	12.5	(7.2;17.8)	11.8	(5.4;18.1)
Malta	8.4	(4.7;12.2)	6.1	(2.4;9.8)	2.6	(0;5.6)	2.5	(0.0;5.9)	2.4	(0.0;5.8)	6.5^a	(0.0;13.9)	5.1^a	(0.0;10.9)
Netherland	23.3	(19.5;27)	25.0	(21.4;28.6)	22.1	(19.4;24.9)	20.8	(18.1;23.5)	17.4	(14.7;20.1)	15.9	(13.2;18.5)	13.7	(11.0;16.3)
Poland	0.9	(0.4;1.3)	0.8	(0.3;1.4)	0.1	(0;0.3)	0.5	(0.1;1.0)	0.3	(0.0;0.7)	0.6	(0.1;1.0)	0.8	(0.1;1.4)
Portugal	12.9	(11.2;14.7)	10.2	(8.8;11.6)	9.5	(8.2;10.8)	8.4	(7.1;9.6)	7.1	(6.0;8.3)	6.2	(5.1;7.4)	8.4	(6.9;10.0)
Romania	2.4	(0.5;4.2)	2.6	(0.7;4.6)	3.6	(1.3;5.9)	0.5	(0.0;1.6)	1.1	(0.0;2.6)	2.5	(0.0;5.2)	4.3	(0.6;8.0)
Slovakia	0.7	(0.1;1.3)	6.9	(5.0;8.8)	1.3	(0.5;2.2)	1.0	(0.2;1.7)	1.3	(0.3;2.3)	1.5	(0.3;2.7)	0.0	Nr
Slovenia	2.9	(2.1;3.8)	1.2	(0.7;1.8)	1.4	(0.6;2.1)	0.9	(0.3;1.6)	1.3	(0.6;2.0)	1.0	(0.3;1.7)	1.5	(0.6;2.4)
Spain	10.4	(9.3;11.4)	10.1	(9.0;11.2)	8.5	(7.5;9.5)	9.9	(8.8;10.9)	8.7	(7.5;9.9)	9.4	(8.3;10.6)	9.7	(8.4;11.0)
Sweden	14.8	(10.3;19.3)	14.8	(10.1;19.5)	9.4	(4.9;13.8)	8.2	(3.7;12.6)	4.9	(1.0;8.7)	5.6	(1.2;9.9)	3.6	(0.5;6.8)
EU27	9.0	(8.7;9.4)	7.7	(7.4;8.1)	7.7	(7.4;8.0)	7.6	(7.2;7.9)	6.5	(6.2;6.9)	7.0	(6.6;7.4)	7.5	(7.0;7.9)

Source: Authors' analysis from EU-SILC. Note: ^a = people unemployed for at least 10 months. Nr=not relevant.

5 Conclusions

In order to estimate how many individuals with different economic statuses are covered and adequately protected by social protection, most of the indicators currently adopted by the MF are income-based poverty measures applied to all individuals. The logic underlying these indicators is to consider all types of social benefits given at individual level, without distinguishing by type.

In the previous pages, this logic has been partly criticised because, although it allows an estimate of how many individuals with different economic statuses are capable of reaching acceptable standards of living, it neglects the extent to which individuals are covered and adequately protected when a specific risk materialises. In fact, any type of social programme is aimed at protecting individuals when they face a certain need. For instance, sickness benefits aim to protect people in sickness. The only indicator included in the MF that follows this perspective is the second one, which measures the effective coverage exclusively focusing on the proportion of people who receive benefits in the case of short-term unemployment.

Accordingly, some proposals have been made to expand this kind of measurement. The main contribution of this report is to propose and compute new indicators for monitoring the adequacy of social benefits in the case of risk materialisation. These new indicators are developed exploiting the approach ideated by Podestà and Marzadro (2017) to operationalise the de-commodification outcomes of different social programmes. The adequacy of a certain social programme can thus be measured through the percentage of individuals with an equivalised disposable income (after social transfers) above the poverty threshold who interrupt their job activity for retirement, unemployment, maternity, etc.

Empirically, since the lack of information in the EU-SILC dataset prevented a consideration of those persons who had stopped working because of sickness, maternity and parental leave, the level of adequacy could only be estimated for old-age pensions and unemployment benefits. Consequently, the percentage of retired persons not at risk of poverty and the percentage of unemployed persons not at risk of poverty have been computed for EU27 countries over the 2014-2020 period. As expected, the adequacy of public pensions is significantly higher than that calculated for unemployment benefits.

Furthermore, still following Podestà and Marzadro (2017), the adequacy levels for these two social programmes were also estimated simulating that retirees and unemployed individuals leave their respective households to live alone. This is done in order to neutralise the family role in protecting these two groups of individuals and then capture the sole contribution of pension and unemployment benefits to adequately cover their needs once the respective risks materialise. Again, the results were not unexpected: both retirees and unemployed individuals who (artificially) live alone are significantly less protected than their counterparts who (actually) live with family.

Our analyses also show a systemic gender gap in the adequacy levels of public pensions. Indeed, virtually all European countries present a disparity in not-at-risk-of-poverty rates between female and male retirees, especially when individuals (artificially) live alone.

Another expected outcome might concern a correspondence with the country clusters deriving from the classic welfare regime typologies. This is simply because the adequacy of social programmes was measured here in the same way as de-commodification (see Section 3). However, the scores computed for European countries do not denote any correspondence with those country clusters. If one were to sort the adequacy rates in descending order, European countries would result ungrouped for all the indicators adopted in this study. This result is, moreover, in line with Podestà and Marzadro's (2017) analysis even if the countries and years examined are different. These authors provided estimates for de-commodification outcomes for 16 Western European countries for the 2009-2012, while adequacy is here measured for EU27 countries over the 2014-2020 period.

In conclusion, one issue must be mentioned. The figures we have calculated have not been disaggregated by previous labour market status of retirees and unemployed individuals, as the reliability of these estimates would be generally low due to small sample sizes. Indeed, this is a problem already highlighted in the MF itself. For instance, in arguing that the coverage rate of old-age pensions could be calculated via EU-SILC, the MF (p.48) observes that the data by previous labour market status can only be calculated for those who retired a year ago, for which the sample size would be too small.

Second, the adequacy measures proposed in this work are – as illustrated – based on the at-risk-of-poverty indicator. Even though this indicator certainly has its merits, it has also been criticized. In the literature, the concept of “acceptable living standard” has been tackled and discussed in many different ways, pointing to the

need to establish an absolute threshold and several shortcomings of the relative poverty line. Accordingly, several efforts have been made at the European level on the subject of absolute poverty measurement. Menyhért et al. (2021) have recently produced needs-based customized estimates for households' minimum income for a decent living across the EU. Certainly, these estimates might be considered to complement the list of indicators currently included in the MF. Analogously, the adequacy measures proposed in this work could be complemented in future work by corresponding measures computed via the absolute poverty perspective.

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Annex

Annex 1. Sample of retirees and unemployed in EU27, by Member State (2014-2020)

	2014		2015		2016		2017		2018		2019		2020	
	Retirees	Unemployed	Retirees	Unemployed	Retirees	Unemployed	Retirees	Unemployed	Retirees	Unemployed	Retirees	Unemployed	Retirees	Unemployed
Austria	3054	208	3134	219	3096	197	3117	200	3078	214	3020	199	3180	198
Belgium	2688	543	2696	536	2674	464	2768	467	2784	402	3266	365	3557	338
Bulgaria	3561	911	3464	862	5183	1195	5238	921	5190	849	5348	735	5334	632
Croatia	4376	1374	5131	1735	5939	1694	6190	1530	6714	1502	6442	1136	6453	989
Cyprus	2182	607	2236	679	2254	650	2356	492	2295	394	2362	297	2357	249
Czechia	5080	327	5000	309	5384	282	5569	221	5559	177	5709	123	5705	104
Denmark	2208	151	2312	165	2972	147	2824	152	2774	99	3040	127	2899	154
Estonia	2930	339	2862	218	2810	218	3031	274	2812	160	2837	167	2803	131
Finland	4135	568	4101	590	4120	652	4064	588	3855	518	3944	401	3809	329
France	6193	1060	6013	774	6028	742	5936	695	5859	623	6329	661	5709	595
Germany	6964	711	7052	721	7281	703	7327	624	6929	504	6764	409	11075	856
Greece	5284	2154	8472	3373	11224	4081	13978	4669	15233	4246	12057	2556	10049	1934
Hungary	5184	666	4788	373	5155	339	5430	251	5219	183	4722	177	4374	188
Ireland	1529	827	1691	626	1771	517	1778	459	1583	315	1568	283	1861	218
Italy	9533	2725	8359	2628	10273	3011	11740	2571	11058	2135	11512	1622	8291	1204
Latvia	3616	559	3503	455	3432	458	3321	404	3176	331	2878	242	2969	234
Lithuania	3269	422	3005	398	2913	373	2877	354	2784	376	2851	374	2868	318
Luxembourg	1287	157	1148	147	1312	173	1404	191	1378	158	1499	152	1132	102
Malta	1698	214	1670	164	1729	115	1962	81	1777	82	1903 ^a	46 ^b	1826 ^a	59 ^b
Netherland	3553	494	3357	559	5096	885	5680	890	5638	758	6830	738	6664	651
Poland	6884	1408	6551	1183	6372	1051	6957	947	8269	865	11520	1038	9540	660
Portugal	4154	1418	5083	1748	6034	1937	6908	1864	7877	2004	7924	1731	6823	1247
Romania	5850	255	5717	266	5738	251	5717	187	5602	183	5736	122	5768	117
Slovakia	3227	738	3480	711	3720	676	3829	628	3902	471	3824	405	3838	302
Slovenia	6574	1533	6301	1364	6097	941	6149	850	6128	927	6149	797	6123	734
Spain	4437	3163	4644	2992	5465	3023	5560	3074	5408	2275	6295	2453	5672	2144
Sweden	2856	243	2848	223	2779	171	2774	147	2683	123	2558	108	2619	138
EU27	112306	23775	114618	24018	126851	24946	134484	23731	135564	20874	138887	17464	133298	14766

Source: Authors' analysis from EU-SILC. Note: ^a = people retired for at least 10 months. ^b = people unemployed for at least 10 months.

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