CHAPTER 2

Fairness in the EU: perceptions, evidence and drivers

1. INTRODUCTION ([63])

In 2020, the coronavirus pandemic caused a deep and sudden recession, bringing major socio-economic challenges. From 2013 until the onset of the current crisis, many Europeans saw major improvements in their working and living conditions. In early 2020, the EU counted more people with a job than ever before, and unemployment stood at a historic low. However, the COVID-19 pandemic and the necessary lockdown measures triggered a deep economic contraction. While more than 40 million workers benefited from short-time working schemes, some businesses had to stop their activities altogether, with employees losing their jobs. Many households faced sudden drops in income. People who never thought this could happen to them had to turn to food banks. Entrepreneurs, firms and sectors unexpectedly came to rely on public aid to avoid bankruptcy. The GDP decline projected in 2020 is the sharpest in the EU's history.

In this context, the imperative of promoting a fair economy that works for the people has become even stronger. Europe has a social market economy with a solid track record of combining economic growth and social progress. By global standards, Europeans are affluent, with high levels of social protection and access to quality public services. Still, even during the economic recovery and expansion following the 2008-9 financial and economic crisis, unemployment remained very high in certain regions and Member States, and poverty among workers and families was often persistent. Against this background, the European Parliament, the Council and the Commission proclaimed the European Pillar of Social Rights in 2017 as a compass for renewed socio-economic convergence. In view of the current outlook, implementing the Pillar has become even more important and this is firmly on the agenda of the Commission.

The COVID-19 crisis has sparked renewed discussions on the fair distribution of risks, benefits and burdens. Certain sectors and jobs have been revalued as 'essential', as their continuation was key to the functioning of our societies during the pandemic. Workers in different sectors have been unevenly exposed to health risks. With schools closed, inequalities of opportunity among children increased, as they depended on the support and resources available at home to engage in distance learning. For young people, the economic downturn has created a very challenging environment in which to find a job and become economically independent. More generally, the crisis appears to have its strongest impact on vulnerable groups, including low-skilled and temporary workers and those from marginalized or segregated communities (such as the Roma). Some of the hardest-hit countries had limited capacity to support additional spending, which triggered new forms of solidarity within the EU. Promoting an inclusive and socially balanced recovery is key to avoiding long-lasting scarring effects on the labour market, strengthening the Single Market and rebuilding confidence among all actors.

([63]) This Chapter was written by Stefano Filauro, Alessia Fulvimari, Giuseppe Piroli, Simone Rosini and Tim Van Rie. The analysis on the minimum wage in Germany (*Box 2.4*) is provided by Gabor Katay (JRC.I.1).

Europe will need to make the most of digitalisation, accelerate the greening of the economy and continue to address the challenges of an ageing society. These trends bring opportunities not just to upgrade our production systems, reduce our environmental impacts and change our consumption behaviour ([64]), but also to strengthen our social welfare systems, strengthen European common goods and to increase the EU's social resilience ([65]). As in any transition, there will be winners and losers. Many will benefit from cleaner air, more resilient infrastructure, greener products, better health and a wealth of easily accessible information and training opportunities online. However, the EU's move to a resource-efficient, circular, digitised, climate neutral and resilient economy is expected to create new jobs, while other jobs will change or even disappear. These impacts and opportunities will need to be actively managed, as foreseen in the European Green Deal and the Communication on a Strong Social Europe for Just Transitions ([66]). The Recovery Plan ([67]) adopted in May 2020 recognised the need for unprecedented solidarity and support in this context, including stepping up financial support significantly to repair the damage from the crisis and prepare a better future for the next generation ([68]).

Unless everyone is on board for the recovery and green and digital transitions, the EU will find it hard to achieve its long-term priorities. An uneven economic recovery could lead to deteriorating labour markets and undermine social cohesion. Greening policies may not take root if the poorest cannot afford to adopt new standards or buy greener products or services. However, doing nothing is not an option, and the impacts of climate change are increasingly felt across Europe, impacting disproportionately certain regions and the poorest groups of society. The economic transition is already well underway across many sectors in the EU, and significant investments are needed to ensure firms and citizens can harness the opportunities brought by these transitions. An enduring digital divide could disadvantage whole regions or groups, including young people with inadequate access to learning opportunities and SMEs unable to access markets or innovations. The distributional impacts and costs of the recovery and transitions will have to be fair - and to be perceived as fair.

This chapter considers fairness from the individual's point of view. The next section considers different fairness principles, and presents evidence on the support for these principles among the population. Section 3 looks at the extent to which individuals consider their own lives and those of their compatriots to be fair, in terms of opportunities, income and wealth. Section 4 compares measures of poverty and exclusion, based on different poverty lines. Section 5 looks at mobility in terms of poverty and wage dynamics, including policy options that could foster upward movement for individuals on the labour market. Section 6 draws conclusions.

2. FAIRNESS PRINCIPLES

Fairness' is a broad normative concept, encompassing different ways of sharing resources or benefits ([69]). Whether somebody considers a given distribution of costs and benefits as fair or not depends on the – often implicit – normative criteria she or he applies. The following subsections consider fairness based on merit, basic needs and equality of opportunity or outcomes. Along with a description of these criteria and the main considerations for policy-makers, the section discusses support for these principles among the population.

2.1. Rewarding merit

Fairness may be assessed with reference to individual merit. This notion of fairness strongly emphasises the idea of reciprocity. Exchanges between people ought to be balanced in terms of what they contribute and what they gain, in education, on the labour market or in social protection. From this perspective, pay equality for men and women is assessed not in absolute terms, but relative to 'work of equal value'. Social protection systems take prior earnings or contributions into account when setting workers' benefit levels. And inheritances can at best be seen as merit related to family dynasties, not individuals. Conversely, welfare systems that provide insufficient work incentives for recipients who are able to work are seen as unfair to tax-payers. Hence, policy-makers may consider the aim of 'making work pay' when setting social benefit levels and social contributions. From a perspective focused on merit,

([64]) European Commission, ESDE Annual Reviews 2018 (on digitalisation and the future of work) and 2019a (on sustainable growth for all).

([65]) European Commission (2019b), *Delivering on European Common Goods: Strengthening Member States' Capacity to Act in the 21st Century*, EPSC, which highlighted the need to refocus EU priorities and identify and deliver European Common Goods to 'strengthen Europe's resilience in even the most adverse of circumstances and restore Europe's capacity to act in a fast-changing world'.

([66]) European Commission (2020a) Communication *A Strong Social Europe for Just Transitions*.

([67]) European Commission (2020b) Communication Europe's moment: Repair and Prepare for the Next Generation and (2020c) Communication The EU budget powering the recovery plan for Europe.

([68]) The Commission proposes an emergency Next Generation EU instrument of EUR 750 billion to boost the financial firepower of the EU budget temporarily with funds raised on the financial markets. Together with the three important safety nets for workers, businesses and sovereigns, amounting to a package worth EUR 540 billion, endorsed by the European Council on 23 April 2020, these exceptional measures taken at the EU level would reach EUR 1 290 billion of targeted and front-loaded support to Europe's recovery.

([69]) This section focuses on distributive aspects of fairness, i.e. competing criteria by which to allocate scarce resources. Procedural fairness (how to come to decisions, including on allocation, in a fair way) is beyond the scope of this chapter. Chapter 4 on the role of social dialogue addresses these issues.

being poor *despite having a job*, or being unemployed, or underemployed, despite good educational achievements or active job search, may also be considered as unfair.

Table 2.1

Rewarding hard work is the most widely accepted fairness principle in most countries, whereas equalising income and wealth is the least.

Support for different fairness principles, % of population by Member State, 2018

A society is fair when	Hard-working people earn more than others (strongly) agree	Take care for poor and those in need, regardless of what they give back (strongly) agree	People from families with high social status enjoy privileges (strongly) disagree	Income and wealth is equally distributed (strongly) agree
Austria	91	82	62	55
Belgium	82	75	68	60
Bulgaria	80	62	56	50
Coatia	81	79	73	70
Cyprus	83	83	67	65
Czechia	70	47	45	38
Germany	86	83	65	42
Estonia	88	73	48	24
Finland	75	75	83	37
France	83	81	80	70
Hungary	73	53	68	46
Ireland	79	78	49	59
Italy	82	79	79	76
Latvia	85	74	55	46
Lithuania	74	61	79	29
The Netherlands	78	75	86	29
Poland	81	60	64	48
Portugal	78	84	71	78
Slovakia	73	54	36	57
Slovenia	87	87	76	72
Spain	76	84	79	63
Sweden	79	83	81	28

Note: % combines those 'strongly agreeing' and those 'agreeing', as opposed to 'neither agreeing nor disagreeing', 'disagreeing' or 'strongly disagreeing'. Inverted for the principle on inherited privilege. Cells of the heat map shaded by country (row).

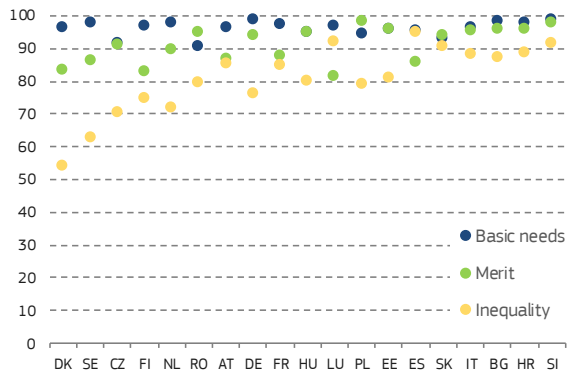
Source: European Social Survey 2018.

Click here to download table.

Chart 2.1

What should a society provide? Broad support for providing basic needs and recognising merit, mixed views on reducing inequality.

Support for different fairness principles, % population by Member State, 2017



Note: Questions: What should a society provide? Please tell me for each statement if it is important or unimportant to you: guaranteeing that basic needs are met for all in terms of food, housing, clothing, education, health; recognising people on their merits; eliminating big inequalities in income between citizens. % shown in the chart combines those considering these principles 'very important' or 'quite important' as opposed to 'not important' or 'not at all important'.

Source: European Values Study 2017.

Click here to download chart.

Among Europeans, there is a large measure of agreement that fairness implies rewarding efforts and contributions. More than 9 out of 10 consider it important to 'recognise people on their merits', according to data from the European Values Study 2017 ([70])(*Chart 2.1*). More than 8 out of 10 agree that 'a society is fair when hard-working people earn more than others' according to the European Social Survey 2018. While there are differences in the overall level of support for fairness principles between countries (*Table 2.1*), in the large majority of countries for which data are available, rewarding hard work gains most support.

Beyond a broad consensus, there are some differences in support for merit, based on individual traits ([71]). Men are slightly more in favour of earnings differentiation based on 'hard work' than women are (which may be linked to unpaid and low-paid work, see below). Support for rewarding work is particularly strong among the elderly. Compared to workers, the economically inactive other than pensioners are slightly less in favour of rewarding effort. Other than that, the support for this fairness principle is pretty well universal across different groups.

In practice, rewarding individual merit requires many normative decisions. This was very visible during the COVID-19 pandemic which exposed many low-paid, often under-valued occupations to increased workload and higher health and safety risks and hazards. Which activities should be taken into account when assessing individual merit? How should care and other unpaid but productive work be valued within households? Should rewards be based on effort (including exposure to difficult working conditions) or on results? How far is it possible to identify the individual contributions of workers, when many rely on the work of colleagues and are helped by technology? Which other factors beyond the control of individuals should be taken into account, in terms of access to opportunities (quality education), rights (non-discrimination) or more generally, the ability to transform rights and opportunities into good and productive social outcomes ([72])? Over which time horizon should merit be assessed: current performance only, or should past achievements, seniority or even group or family achievements be included? People may hold different views on each of these questions, while agreeing in principle on the importance of rewarding merit.

([70]) See Annex 2.1 for country coverage of both the European Values Study (EVS) and the European Social Survey (ESS).

([71]) See Annex 2.2 for logistic regression model predicting support for different fairness principles.

([72]) See capabilities approach by Sen (1980; 1999).

2.2. Providing for basic needs

Fairness may also be seen in relation to basic needs, and promoting fairness may imply prioritising those in need and the most vulnerable, with the duty to establish a 'social floor'. These approaches to fairness tend to highlight basic needs, fundamental rights and an obligation to care for the needy. In most Member States, wages are subject to certain minimum standards, including 'living wages' in a few countries ([73]). Welfare systems tend to provide a last resort safety net, where benefits are conditional on having very limited income or wealth, established via a means test (in some cases including the resources of relatives). This fairness perspective may also prioritise certain groups that are seen as particularly vulnerable such as children and people with specific needs, including people with disabilities.

Nearly all Europeans consider it important to provide for a minimum living standard for everyone. More than 95% state that it is 'important to guarantee basic needs for all, in terms of food, housing, clothing, education, health' (EVS 2017). This support is near universal in all countries surveyed, as none report less than 90% (*Chart 2.1*). The principle continues to enjoy broad support even if it comes at the expense of certain merit-based considerations. On average, more than seven out of ten agree that 'a society is fair when it 'takes care of those who are poor and in need, regardless of what they give back to society' (ESS 2018). The support for this principle is somewhat lower in certain (but not all) Central and Eastern European countries, notably Bulgaria, Czechia, Hungary, Poland and Slovakia (*Table 2.1*).

Views on fairness related to basic needs differ mainly according to age. The oldest age groups are most in favour of taking care of the poor and needy (as they are for some other principles based on merit and equality of opportunity). Those who live comfortably on their income also support slightly more strongly the idea of taking care of those in need. There are no statistically significant differences between men and women, or by activity status.

In practice, establishing basic needs and poverty thresholds involves several normative choices. Should the minimum living standard include only the most basic subsistence (shelter and food) or also cover resources for social participation, such as meeting friends? How far should these needs be considered universal, or should they allow for national or regional living standards and customs ([74])? How should we account for differences in health, cognitive ability ([75]) and, more generally, for heterogeneity in actual needs? Where exactly is the line between needs, social norms and individual preferences?

2.3. Promoting equality of opportunities and outcomes

Egalitarian notions of fairness seek to minimise differences among a given population. Beyond the focus on the most vulnerable, these perspectives pay particular attention to those who hold a large amount of resources, and their ability to shoulder larger burdens. Many national taxes and social benefits redistribute income and - to a lesser extent - wealth from the richest to the least well-off, thereby substantially reducing disparities.

In operational terms, promoting equality raises several questions. Do we aim to equalise outcomes (such as income or wealth), or rather life chances (opportunities)? Is there an optimum level of (in)equality? The aim is rarely to achieve equality of living standards, but often to reduce 'excessive inequalities', the level of which remains open to debate.

Most Europeans question the fairness of inherited privilege. Around seven out of ten do not agree that 'a society is fair when people from families with high social status enjoy privileges in their lives' (ESS2018). However, there are major country differences in this regard, from more than 80% in Finland, France, the Netherlands and Sweden opposing such privileges to less than half in Czechia, Estonia, Ireland or Slovakia. Beyond country differences, there are specific groups that are less tolerant of inherited privilege (those living comfortably on income) and others that are more tolerant (those inactive on the labour market, other than pensioners). Older people are generally more likely to question the fairness of inherited privilege than youth.

There are mixed views on whether inequalities in income or wealth are unfair per se. While four fifths of the population support 'eliminating big inequalities in income between citizens', this is lower than support for merit or basic needs from the same survey (EVS 2017, *Chart 2.1*). Crucially, the degree of inequality matters: just over half of those surveyed agree a society is fair 'when income and wealth are equally distributed among all people' (ESS 2018, *Table 2.1*). Support for distributing income and wealth equally is relatively low in several countries that are known to have low income disparities, including Scandinavian countries, the Netherlands and Czechia. Women tend to show more support for equalising income and wealth than men do. The young are also slightly more in favour of equalising income and wealth. The largest differences are between those living comfortably on their income (low support for equality) and those who struggle to make ends meet (strong support).

([73]) Notably Ireland, Romania and Slovenia. See Eurofound (2020).

([74]) See discussion on poverty line in section 4.

([75]) Penne et al. (2016).

Promoting fairness often means balancing different principles and objectives, rather than prioritising just one. The European model enshrined in the treaties refers to a 'highly competitive social market economy, aiming at full employment and social progress' ([76]). The European Pillar of Social Rights mirrors these multiple objectives. The Pillar contains chapters on equal opportunities and access to the labour market, fair working conditions and social protection.

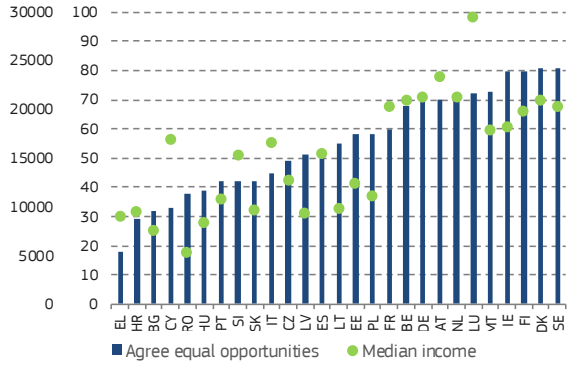
3. PERCEIVED FAIRNESS: EDUCATION, JOBS, INCOME AND WEALTH

Across countries, there are large differences in perceived fairness. When asked whether they have equal opportunities to get ahead in life, just like others in their country, four out of five Swedes, Danes, Finns and Irish people agree. By contrast, less than one in three in Cyprus, Bulgaria and Croatia, and less than one in five in Greece do so (*Chart 2.2*).

Chart 2.2

Major differences across EU Member States in terms of perceived fairness and opportunity

% of population agreeing or strongly agreeing to 'Nowadays in [our country], I have equal opportunities for getting ahead in life, like everyone else', 2017; median equivalised disposable household income in purchasing power parities, 2017



Source: Opportunities: Special Eurobarometer 471, December 2017; Median equivalised disposable household incomes: EU-SILC 2017 [ilc_di04]

Click here to download chart.

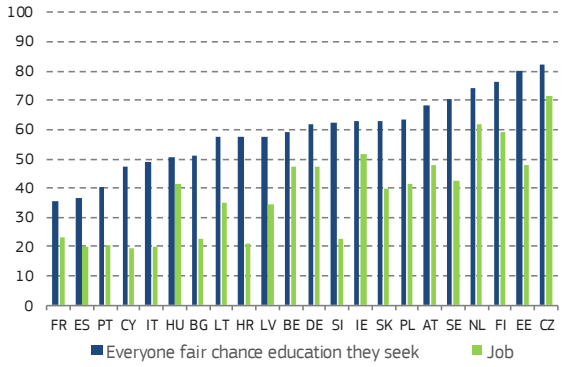
In countries with higher income levels, people tend to report more equality of opportunity. Differences in median incomes of countries can by themselves predict about half of the variation in perceived equal opportunities ([77]). In some European countries (Greece, Cyprus, Luxembourg), the population is far less positive about equal opportunities than one would expect based on income levels. The opposite holds in Ireland, Finland and Sweden.

Most people believe that there are fairer chances in education than in the labour market. When the notion of 'fair opportunities' is split by domains ([78]), educational systems are consistently seen as offering fairer chances than labour markets (*Chart 2.3*). This finding may be linked to accumulation of advantages or disadvantages over the individual life course, particularly from initial education. Fairness perceptions of the labour market may also reflect a range of factors, including high unemployment and segmentation between insiders and outsiders. It may also depend on actual or perceived levels of wage inequality (*Box 2.1*).

Chart 2.3

Overall, educational systems are seen as offering fairer opportunities than labour markets

% of population agreeing that everyone in their country has fair opportunities in education or the job market, 2018



Note: % represents those reporting 6 or higher on a scale from 0 (does not apply at all) to 10 (applies completely)' to the statements 'Everyone in our country has a fair chance to achieve the level of education they seek; get the job they seek'

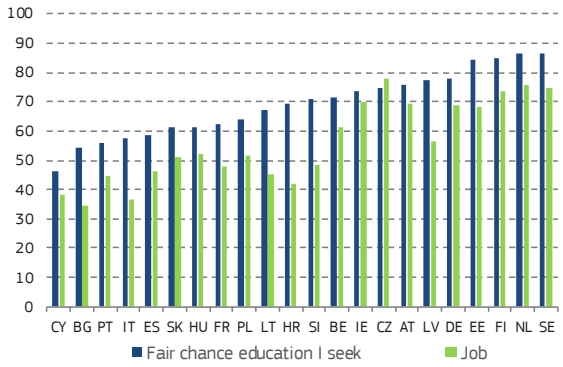
Source: Authors' calculations based on European Social Survey 2018.

Click here to download chart.

Chart 2.4

Most Europeans consider they themselves received fair chances compared to others, particularly in education

% of population agreeing that compared to others in their country, they have fair opportunities in education or to find a job, 2018



Note: % represents those reporting 6 or higher on a scale from 0 (does not apply at all) to 10 (applies completely)' to the statements 'Compared to other people in our country, I have a fair chance to achieve the level of education/job I seek'.

Source: Authors' calculations based on European Social Survey 2018.

Click here to download chart.

([76]) Article 3 paragraph 3 of the Treaty on European Union.

([77]) In a bivariate least squares linear regression, the R^2 is 57%.

([78]) In general the results based on the European Social Survey 2018 are fairly consistent with the Eurobarometer of *Chart 2.2*, but with a few notable exceptions, including Czechia and France.

Europeans generally assess their own situation more positively than that of others in their country. When asked about fair chances in education or – particularly - to find a job, most provide a more positive assessment for their personal situation than for others in their country (*Chart 2.4*) ([79]). The gaps between education and jobs are also less pronounced when the respondent's own situation is taken into account (compared to *Chart 2.3*).

Fewer women than men state that they have received fair opportunities in education, and particularly in getting the jobs they seek. Controlling for age, activity status, country and ability to get by on income, the average gender gaps in perceived fairness amount to 2.5 percentage points for education, and 5 percentage points for jobs (see Annex 2.2). There is ample evidence of widespread gender inequalities in the labour market, linked to unequal pay, career prospects or occupational segregation ([80]). For education, the situation is somewhat different: younger cohorts of women generally attain higher levels of education than men but this was not the case for older generations.

Younger Europeans see more fair opportunities for themselves in education and on the labour market. For education, the elderly in particular are less likely to consider that they received fair chances. This might be linked to the expansion of tertiary education that took place in many European countries also reflecting the EU-wide commitment in the Europe 2020 Strategy. The European Education Area actions will support the transformation of higher education to match new social and economic challenges, including its further expansion. The updated Skills Agenda ([81]) promotes collective action by all stakeholders, to ensure that skills are fit for jobs and to help people build skills throughout their lives. It promotes in particular those skills that are relevant to the green and digital transitions.

Perceptions of having fair opportunities differ according to activity status. Workers are most likely to consider themselves as having benefited from equal opportunities in education and – as could be expected – on the labour market. The unemployed in particular see themselves as being at a disadvantage, compared both to those who are inactive in the labour market and to pensioners.

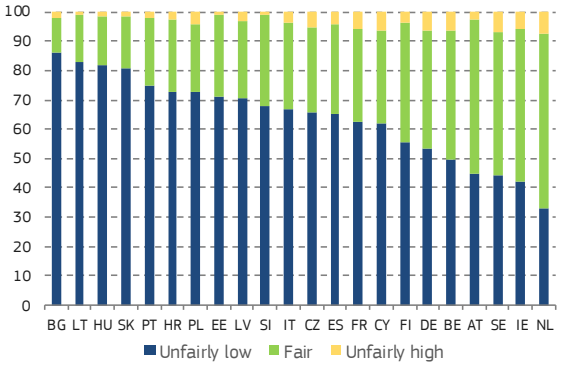
Perceptions of equal opportunities are closely linked to self-reported ability to make ends meet. Those who live comfortably on their income are much more likely to say they have fair opportunities than those who just manage to make ends meet. The difference is more than 15 pp, both for education and jobs. Conversely, those who report (great) difficulties in getting by on their income are less likely to report having fair chances, a gap of a similar magnitude (between 10 and 15 pp).

The extent to which Europeans consider their own net incomes as fair differs strongly across countries. In Austria, Ireland or the Netherlands, more than half of adults see their income as fair (*Chart 2.5*). However, this drops to less than one in five in Bulgaria, Lithuania, Hungary and Slovakia ([82]). Clearly, the absolute income levels and overall living standards of the country matter in this regard (see below).

Chart 2.5

Large gaps between countries as to how fair citizens perceive their own net incomes to be

% of population considering their own net income to be unfairly low, fair or unfairly high, 2018



Source: Authors' calculations based on European Social Survey 2018.

Click here to download chart.

Perceived fairness of net incomes is linked to several individual traits ([83]). Men are more likely than women to consider their incomes as fair (4 percentage points difference after controlling for other factors). Compared to workers, relatively more of the unemployed and inactive (other than pensioners) consider their incomes as fair. Those who struggle to get by on their incomes also tend to consider their level as unfair, while the opposite holds for those who get by comfortably.

For perceived fairness of income, individuals' absolute income levels matter more than income relative to others. The evidence suggests that both the income level in absolute terms and income as compared to peers can influence individuals' assessments of how fair their income is. However, in terms of predictive power, the former clearly outperforms the latter ([84]).

([79]) European Commission (2019c) finds a similar pattern, comparing average scores for 'life fairness' and 'country fairness'.

([80]) European Commission (2019d) Annual report on equality between men and women.

([81]) European Commission (2020d).

([82]) People who consider their own income as unfairly high are a small minority in all countries.

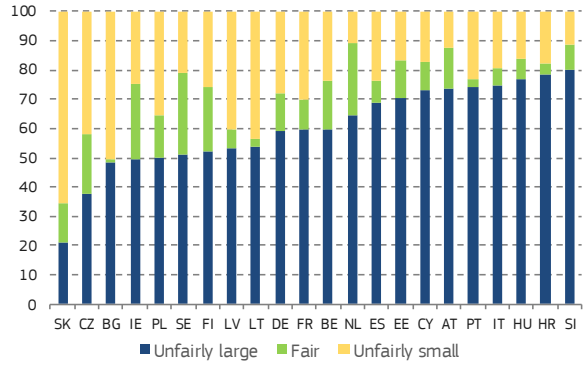
([83]) See Annex 2.2.

([84]) Clark and D'Ambrosio (2020, forthcoming).

Chart 2.6

Few consider that wealth is fairly distributed in their country

% of population considering wealth inequality in their country to be unfairly small, fair or unfairly large, 2018



Source: Authors' calculations based on European Social Survey 2018.

Click here to download chart.

Existing levels of wealth inequality within countries are generally seen as unfair. While most people consider wealth disparities in their countries to be too large, the opposite view has non-negligible support, particularly in several Central and Eastern European countries, France and Germany (*Chart 2.6*). Apart from the self-reported ability to get by on current income, individual traits such as sex, age or activity status do not have a significant predictive power in this regard ([85]).

([85]) Based on sex, education, age and country, see Annex 2.2.

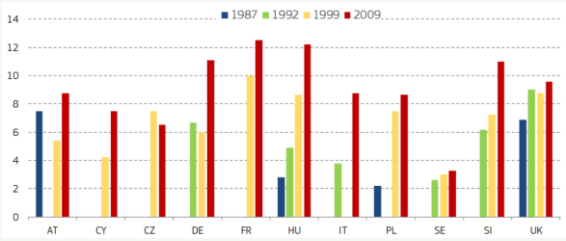
Box 2.1: Wage inequality: perception and fairness.

People's perception of how fair their societies are depends on distributive concerns. In the EU, the dissatisfaction with income inequality correlates well with the measured income inequality at the national and even regional level ([1]). Some research points to perceived inequality as an engine for individual dissatisfaction and a good predictor of preferences for redistribution. When individual perception of inequality is high (low) people tend to prefer higher (lower) levels of redistribution ([2]).

Chart 1

Perceived wage inequality has increased in almost all EU countries

Perceived top/bottom wage ratio. Median value



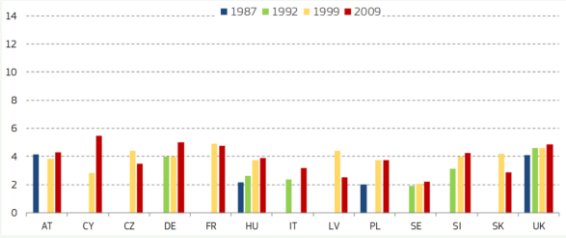
Note: Top wages are the average of a doctor's wages and the wages of a chairman of a national corporation; bottom wages are those of an unskilled worker. Respondents to the ISSP were explicitly asked about these wages.

Source: OECD ELS with International Social Survey Programme (ISSP) data

Chart 2

People do not seem to tolerate more wage inequality nowadays compared to 1990s

Fair top/bottom wage ratio. Median value



Note: Top wages are the average of a doctor's wages and the wages of a chairman of a national corporation; bottom wages are those of an unskilled worker. Respondents to the ISSP were explicitly asked about these wages.

Source: OECD ELS with International Social Survey Programme (ISSP) data.

Understanding if perceptions of inequality in society are based on past recollections rather than current trends of inequality is crucial. All the more so, given a general long-term increase in inequality over the last thirty years ([3]). Moreover, dissatisfaction with income disparities may be driven by a large deviation between the 'perceived' level of inequality and what is believed the 'fair' level of inequality.

The fraction of population that judges income differences in their country as too large has increased over the last 30 years. A recent study from the OECD examines what are the reasons behind dissatisfaction with income inequality over the long run ([4]). The study analyses how much the perceived wage between a top and a bottom earner has evolved over time and what their fair ratio should be, spanning from the late 80s until the late 2000s ([5]).

The level of perceived wage inequality has steeply increased in almost all EU countries compared to the 1990s ([6]). The perceived wage measured as a wage ratio between a top and a bottom worker has significantly increased over time in almost all EU countries except Czechia. In some Member States, such as Germany, France and Hungary, on average people believed in 2009 that the wage of a top worker was around 12 times higher than that of an unskilled worker in a factory (see *Chart 1*) ([7]).

([1]) A recent study by Colagrossi et al. (2019) show that people, on average, correctly assess whether inequality in their country is too high. *The Median Voter Takes it All. Preferences for Redistribution and Income Inequality in the EU-28.*

([2]) Much research has looked at individual preferences of redistribution and (perceived or estimates) inequality levels. Standard theory (Meltzer and Richard, 1981) contends that individual preferences for redistribution are mainly based the difference between the individual's own income and the average income. However, the debate has developed precisely in the light of the differences between perceived and current inequality levels. For recent empirical evidence see Colagrossi et al. (2019) and Bobzien (2020).

([3]) See OECD (2015) and Blanchet et al. (2019).

([4]) (Mis)perceptions of inequality and preferences for redistribution, OECD (2021, forthcoming).

([5]) Perceived and fair top/bottom wages are derived from the International Social Survey Programme (ISSP) data, unfortunately these questions were only available up to the 2009 wave. Top wages are considered as the average between the wages of a doctor in general practice and those of a chairman of a large national corporation. Bottom wages are considered as those of an unskilled factory worker. The perceived/fair wages of these particular professions are explicitly asked about in the ISSP questionnaire.

([6]) NB: the analysis of perceived and fair inequality refers to wage inequality.

([7]) It is not possible to estimate a comparable top/bottom wage ratio to compare it with the 'perceived' and the 'fair' wage ratio. This is due to high detail of the wage asked in ISSP (wage of chairman on a national corporation; unskilled worker in a factory of a general doctor) that cannot be correctly identified in cross-country comparable wage datasets (SES or EU-SILC).

(Continued on the next page)

Box (continued)

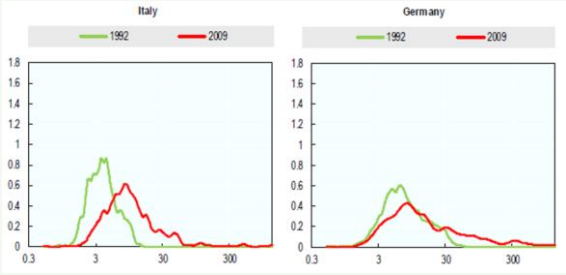
People think that the fair level of wage inequality should be much lower than what they currently perceive. As illustrated in *Chart 2*, people in the EU thought in 2009 that top wages should not be on average four times higher than the bottom wages ([8]). This is a much lower ratio than what people perceive as the real ratio (i.e. average perceived wage ratio around 8.5 in 2009, see *Chart 1*). Moreover, what people think the fair top/bottom wage ratio should be increased only slightly over time, by a much smaller factor than the perceived wage ratio.

The increasing dissatisfaction with income disparities seems to be driven by beliefs in rising wage disparities rather than changes in preferences for wage fairness. Indeed, the trend of what people think a "fair" top/bottom wage ratio should be has been rather stable over time. If anything, in Germany, Hungary and Cyprus (see *Chart 2*) the population seems to have become slightly more tolerant of wage inequality ([9]). This might reflect adaptive preferences in light of perceived higher inequalities.

Figure 1

People's beliefs about wage inequality were much more dispersed in 2009 than in 1992

Density distribution (y-axis) for perceived top-bottom wage ratio (x-axis) 1992 and 2009



Note: The mode of the density distribution has shifted in Germany from a perceived 6.4 top/bottom wage ratio in 1992 to 8.1 in 2009 and in Italy from 4.3 to 8.0 in 2009. Moreover, not only people perceived a higher top/bottom wage ratio in 2009, but the distributions of beliefs about the top/bottom wage ratio have become much more dispersed. Top wages are the average of a doctor's wages and the wages of a chairman of a national corporation; bottom wages are those of an unskilled worker. Respondents to the ISSP were explicitly asked about these wages.

Source: OECD ELS with International Social Survey Programme (ISSP) data.

Perceptions of wage inequality have become more dispersed. Not only did people in the EU perceive higher wage inequality in 2009 than in the 1990s, but these perceptions were much less defined and more dispersed across the population. In the case of Germany and Italy (see *Figure 1*), perceptions about the top/bottom wage ratio became more scattered and less concentrated. This might perhaps reflect societies less organised in social groups and around common beliefs, or much more stratified and complex types of profession.

Preferences about wage inequality have become more scattered over time. In 1992 preferences regarding the 'fair' level of top and bottom wages were relatively structured in most EU countries, with the majority of people convinced that top earners should either earn their current wage or half that level, while bottom earners should earn either their current level or around 20% more. Conversely, preferences regarding 'fair' levels of top and bottom wages had become significantly more dispersed by 2009 ([10]).

Increasing disagreement regarding the 'fair' level of wages might indicate societies where beliefs are less defined and less structured around common paradigms of the 'fair' wages for top and bottom earners. However, the mechanisms through which inequality perceptions are formed and can be influenced by academic debate or political discourse require further research and explanation.

([8]) This is an average for the EU countries available shown in *Chart 1* that are those available from the ISSP.

([9]) On average people in Germany thought a fair top wage should be 5 times higher than a bottom wage in 2009 compared to a ratio of 4 in 1999.

([10]) "(Mis)perceptions of inequality and preferences for redistribution", OECD (2021, forthcoming).

4. BASIC NEEDS: WHAT IS THE MINIMUM?

Beyond a broad agreement among Europeans on the importance of meeting citizens' basic needs, measuring poverty and social exclusion in practice requires several conceptual and methodological choices. These relate to the needs and resources to be covered. In a European context, an important question is the extent to which the poverty concept should allow for national differences in overall living standards.

This section explores the poverty levels under a theoretical EU-wide standard of relative income poverty. Such a poverty measurement stems from normative considerations on the society of reference, whether national or supranational where individuals compare their income levels and carry subsequent policy implications.

The concept of relative poverty adopted in the EU is essentially national. Poverty defined as 'inability to participate in the society due to lack of resources' ([86]) depends on which is the society of reference where individuals tend to compare their income. Income poverty is assessed at the national level primarily because tax-benefit systems, which are the primary policy tool to contrast income poverty, are in the remit of the nation state and their structure is influenced by national preferences. Moreover, for many individuals the society of reference where they evaluate their relative income conditions is the nation state. However, EU individuals increasingly inhabit interconnected spaces where traditional and social media cross national borders ([87]). In addition, as the EU mobile population has risen over the last decade, it is reasonable to assume that many people in the EU consider their income levels in comparison to those that might be achieved across the borders of neighbouring states. In this context, the perception of relative poverty may be affected by European considerations too. Likewise, in such an integrated economic space, it can be contended that we should aim, at least in the long run, for a cohesive Union where no one falls under a common EU-wide income threshold, regardless of their country of origin ([88]). The analysis that follows explores from this perspective where the EU stands today, as an interesting thought experiment.

If the society of reference for income comparisons were the EU, relative poverty could be assessed by counting the individuals whose income is below an EU-wide poverty threshold. Such a poverty threshold might be set at 60% of the EU median income and would be the same for all EU Member States ([89]). The resulting poverty rate would represent the individuals in the different Member States that are income poor under an EU-wide threshold ([90]).

Those who were poor relative to the EU-wide threshold would be concentrated mainly in Eastern Member States. As illustrated in *Chart 2.7* (blue bar), the ensuing EU-wide at-risk-of-poverty rate shows extreme cases such as Bulgaria and Romania where well over 70% of the population lives under the EU threshold of around EUR 10 000 in purchasing power parities per year. Conversely, the poverty rate in the richer Member States would decline drastically, with less than 5% of the national population under the EU-wide threshold (see Luxembourg, Finland and Austria for instance).

The poverty threshold might be also set as an average of the national and the EU wide threshold. This hybrid poverty threshold would take into account both the nation and the EU as societies of reference ([91]). The resulting poverty rate in the different EU countries is illustrated in *Chart 2.7* (the green bar) ([92]). Compared to the national at-risk-of-poverty (AROP) rate, under this hybrid poverty threshold there would be fewer households in North-western Member States, a similar number of households in Mediterranean Member States such as Italy, Spain and Cyprus and far more households in Eastern European Member States and Greece. These alternative measures of poverty demonstrate that the assessment of poverty levels depends crucially on the society of reference and the income poverty threshold that characterises it ([93]).

([86]) Council of the European Communities (1985).

([87]) Some studies point out that increasing European integration shapes the life chances, the social identities, the interests and values of individuals and social groups (Heidenreich, 2016).

([88]) For the sake of comparison between countries, income levels are expressed in purchasing power parities (ppp).

([89]) The EU poverty line is set at 60% of the annual median income of the EU-wide distribution, where incomes are corrected by Member State for their purchasing power parities [prc_ppp]. In 2017, the EU poverty line, expressed in ppp, was EUR 10037 per year. The choice of setting the poverty threshold at 60% of the EU median income follows the EU standard of setting the national poverty line at 60% of the national median income. Clearly it is an arbitrary choice.

([90]) Studies on the EU-wide income distribution have been recently carried out in Filauro (2018), European Commission (2019a), Chapter 1, section 4.5) and Chapter 1, Section 4.1.

([91]) Other poverty thresholds could be envisaged to address the availability of (differently expensive) purchases in a neighbouring country or the economic integration of different countries/areas. For example it may be contended that households living in proximity of a border can afford goods less expensive in the neighbouring countries and so their income needs may be lower than for their fellow nationals. To address these concerns different weighting systems between the national poverty thresholds and the poverty thresholds of neighbouring areas may be more appropriate.

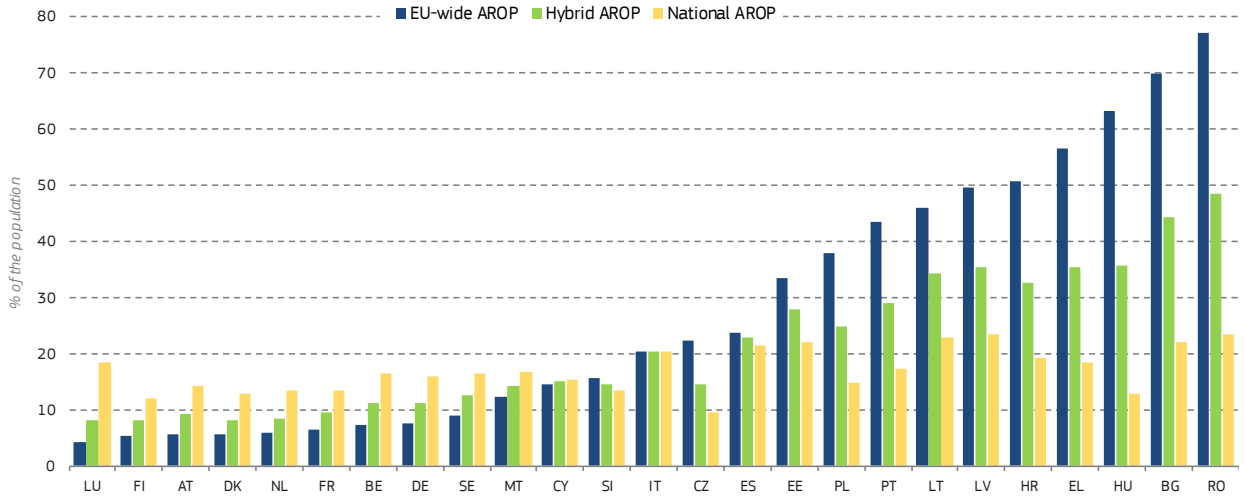
([92]) For example, the three poverty thresholds in 2017, expressed in ppp per adult equivalent, for the case of Sweden are: EU poverty line= EUR 10037; national poverty line= EUR 12095; the hybrid poverty line as average of the previous two= EUR 11066. Contrast this with Romania where the EU poverty line would be the same as for Sweden, but the national AROP line is EUR 3182 and the hybrid poverty line is EUR 6609.

([93]) Future analyses may investigate relative income poverty by regional standards. A consequential application would be the poverty rate under 60% of regional median income. Also this measure may be relevant in light of the tendency for many

Chart 2.7

The poverty rate under the EU-wide threshold in Eastern Member States is much higher than the national AROP rate

At-risk-of-poverty rate (%) under three poverty thresholds: the AROP line, the EU-wide poverty line and the average between the AROP and the EU-wide poverty line (hybrid), 2017



Source: Authors' calculations, based on EU-SILC 2017 users' database.

Click here to download chart.

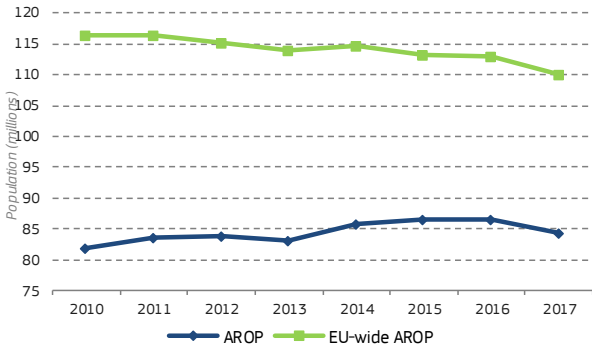
There are more households in poverty under the EU-wide threshold than using the at-risk-of-poverty (AROP) indicator (see *Chart 2.8*). This is mostly because in relatively poorer Member States much higher fractions of the population have income levels below the EU-wide poverty threshold than have income levels below the lower national (AROP) thresholds. However, although poverty levels are much higher under the EU-wide threshold, they have been reducing over time whereas the overall risk of poverty by national standards has been relatively stagnant or increasing ([94]).

Poverty reduction was more pronounced under the EU-wide threshold compared to the national at-risk-of-poverty (AROP) rate in the period 2010-2017. The EU population at risk of poverty as measured by the at-risk-of-poverty (AROP) indicator was just below 85 million in 2017, slightly higher than in 2010. Conversely, the EU population at risk of poverty below the EU-wide threshold has slowly but steadily declined (from over 116 million individuals in 2010 to 110 million individuals in 2017) as illustrated in *Chart 2.8*.

Chart 2.8

The poverty rate under an EU-wide threshold is much higher than under the AROP indicator, but has declined

AROP and EU-wide AROP (millions of people)



Source: Authors' calculations, based on EU-SILC 2017 users' database.

Click here to download chart.

The reduction in poverty under the EU threshold was mainly due to improving income levels in Eastern Member States ([95]). As the top panel of *Chart 2.9* shows, while more than 60% of poor households under the EU threshold were located in Eastern Member States in 2010, this proportion had declined to less than 50% by 2017 (see especially the reduction in Poland) ([96]). However, the relative proportion of households in poverty under national (AROP) thresholds has not particularly changed across the different Member States over the same period (bottom panel *Chart 2.9*).

individuals to consider their income needs by local standards and judge their relative income condition primarily in comparison with local standards (Hauser and Norton 2017).

([94]) See Chapter 1 Section 4 for an assessment of the at-risk-of-poverty (AROP) trend in the EU.

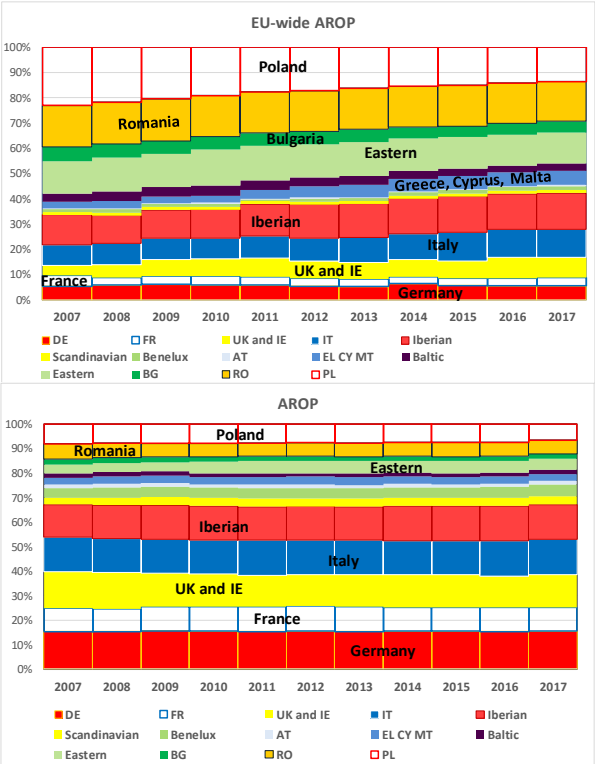
([95]) European Commission (2019a). Chapter 1. Section 4.5. EU-wide the poorest individuals are mainly located in the bottom-middle quintiles of their national income distributions in most Eastern Member States.

([96]) As highlighted in Goedemé, Zardo-Trinidade and Vandenbroucke (2018).

Chart 2.9

Poor households under the EU-wide threshold are mostly located in Central and Eastern Member States, although this is less the case after 2007

EU poor population by country, AROP and EU-wide AROP rate, 2007-2017



Note: Aggregate figure of individuals in poverty under the EU threshold and under national AROP thresholds respectively are in *Chart 2.8*.

Source: Authors' calculations, based on EU-SILC 2017 users' database

Click here to download chart.

This result was driven by increasing convergence in median incomes between EU countries, not always matched by relative increases in the income levels for the lower income groups. Previous studies indicate that the EU 'convergence machine' has been effective in stabilising and reducing differences in EU median incomes while inequality within countries has not reduced ([97]). This seems to be the case as middle-income groups of the relatively poorer EU countries are overrepresented among EU low-income households ([98]). Thus, while middle incomes in Eastern Member States have improved and crossed the EU poverty threshold, low incomes in these same Member States have not progressed fast enough to cross the national poverty lines.

All in all, analysing the poverty rate under an EU threshold provides useful information about income convergence between individuals across the EU and the dynamics of the income conditions of poor households in the EU, compared to EU median incomes.

([97]) Eurofound (2017); Filauro and Parolin (2019).

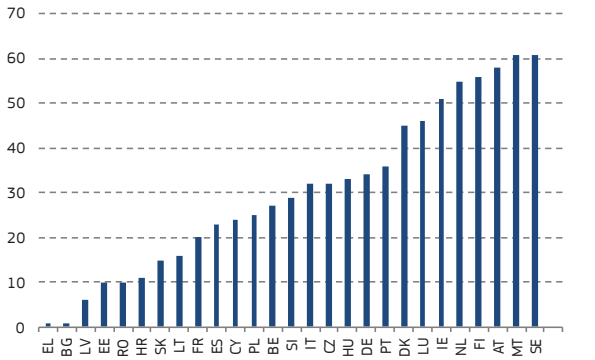
([98]) As d'Hombres et al. (2020, p. 39) put it: 'Developments in Central and Eastern Europe also explain the improving income levels of the poorest 18% across the EU. The vast majority of individuals among the poorest 18 % of the EU population live in Central and Eastern Europe, where even poor people enjoyed some increases in their income.'

However, people's perception of the income levels required to lead a decent life may differ from the 'official' 60% of national median income ([99]). In Bulgaria, Latvia and Greece, less than 10% of the total population state that they could make ends meet with an income that corresponds to the respective at-risk-of-poverty thresholds that apply to them, given their household size and country of residence. By contrast, more than half of the population can make ends meet with an income at the poverty threshold in Ireland, the Netherlands, Finland, Austria, Malta and Sweden.

Chart 2.10

The extent to which households can make ends meet with an income at the poverty threshold differs across countries

% of population where the self-reported income to make ends meet is equal to or below the respective at-risk-of-poverty threshold, 2017



Note: For each household the income needed to make ends meet as reported by reference person of each household (annualized, multiplied by 12) is compared to the at-risk-of-poverty threshold that applies to this household, given its composition and Member State of residence.

Source: Authors calculations, based on EU-SILC 2017 users' database.

Click here to download chart.

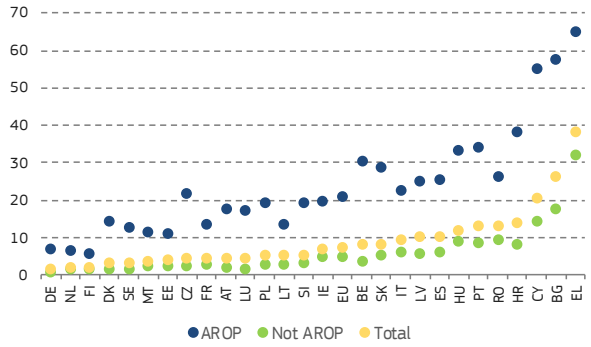
In each Member State and across the EU, people at risk of poverty are more likely to report great difficulties in making ends meet than those who are not. However, the income-poor in the richest Member States are overall less likely to do so than even the non-income-poor in the least affluent Member States (*Chart 2.11*).

([99]) Fabo and Guzi (2019)

Chart 2.11

While income-poor households have more difficulties making ends meet in each Member State, country differences are large

% population reporting great difficulties in making ends meet by at-risk-of-poverty status, 2018



Source: Eurostat, based on EU-SILC [ilc_mdes09]

Click here to download chart.

Likewise, reference budgets suggest that the poverty thresholds do not suffice to cover basic needs in certain EU countries. A reference budget is defined as the value of a basket of goods and services that are considered necessary for people to reach an adequate living standard ([100]). When comparing the prices of these baskets to income-based national poverty lines, the latter are shown to be less adequate in the poorest Member States ([101]).

([100]) The composition of these baskets of goods and services has a major impact on results, and also reflects normative choices. Baskets can be established based on 'healthy living' guidelines (.e.g. adequate nutrition), on input from focus groups (in some cases targeting the most vulnerable), or a combination of both.

([101]) This is in line with Engel's Law, which states that as household income increases, food expenditure as a proportion of total expenditure decreases (even if absolute expenditure increases).

Crucially, in the least affluent Member States, income at the level of the poverty threshold may often not suffice to cover the cost of adequate food and housing, let alone other basic goods and services ([102]).

The choice of methods matters particularly when differences between countries are large. Upward convergence in living standards would not only benefit many Europeans greatly, in line with the EU's aims. It would also make the distinction between national and EU-wide poverty lines less pertinent. In view of the strong links between absolute income, living standards and fairness perceptions, promoting upward convergence in living standards is important.

([102]) Goedemé et al. (2015).

Box 2.2: Persistent risk of poverty and severe material deprivation

(Based on Karagiannaki, 2020, forthcoming)

For individuals and households, material deprivation and income poverty are distinct risks. While there is a degree of overlap, i.e. groups exposed to both risks, the intersections show a large variety of situations (see chapter 1, Chart 1.40).

A sizeable group of Europeans is at-risk-of-poverty without being materially deprived. This is particularly the case in countries with relatively high living standards and low material deprivation overall. Still, even in countries with high levels of material deprivation, there is a substantial mismatch between both risks, particularly among those at risk of poverty.

To some extent this may be linked to the dynamic nature of income poverty. Section 5 of this chapter shows that there are high rates of mobility into and out of poverty. A short spell of income poverty could be overcome using savings. Certain durables can be used regardless of income. Therefore, one could expect that among those in persistent income poverty ([1]) the overlap between material deprivation and income poverty would increase substantially. However, empirical analyses suggest that the time profile plays a rather limited role.

Comparisons of risks profiles show that the work intensity of the household has a larger impact on persistent poverty than on material deprivation. Inversely, household composition has a larger effect on material deprivation than persistent income poverty. This includes higher risks for material deprivation for single-person and single-parent households, as well as those headed by a woman. The presence of people with disabilities in the household also has a larger effect on material deprivation than on persistent poverty.(see chapter 1, section 4.3).

([1]) The persistent at-risk-of-poverty rate is defined as the share of people who are currently poor and were also poor 2 out of the 3 previous years.

5. SOCIAL MOBILITY AND POLICY ACTIONS AND THEIR IMPACT ON SOCIAL INCLUSION

5.1. Introduction

This section focuses on 'intra-generational mobility', one type of social mobility. The other important type of social mobility is 'intergenerational mobility'. Intra-generational mobility considers the extent to which socio-economic characteristics (most prominently income and labour market status) change - rather than remaining the same - over an individual's career or lifetime. Intergenerational mobility reflects the extent to which the socio-economic characteristics of children (particularly those related to education, occupation or income) are related to those of their parents ([103]). Most literature on social mobility has looked predominantly at intergenerational mobility, however intra-generational mobility is crucial because individual mobility in income and labour status over an individual's career may counteract trends in intergenerational mobility ([104]).

Intra-generational mobility of income and wages is strongly related to perceptions of fairness and willingness to 'tolerate inequality'. The higher the degree of mobility the more equality of opportunity exists. In line with the first principle mentioned in Section 1 according to which fairness may be assessed with reference to individual merit, high social mobility during the life course may trigger high degrees of tolerance for inequality as it indicates that skills and merit are well rewarded. In addition, income/wage mobility is crucial to whether the most vulnerable people in the society, can improve their situation over the very short or short term ([105]). This is in line with the second principle mentioned in Section 1 according to which fairness may be seen as prioritising those in need and the most vulnerable. Nevertheless, mobility may also be perceived as a negative phenomenon. Income and wage instability can be a sign of financial insecurity especially for those vulnerable people who may feel most exposed to risks and shocks ([106]).

The first part of this section analyses income and wage mobility, as well as labour market transitions. The analysis is based on longitudinal data from European Union Statistics on Income and Living Conditions (EU-SILC) ([107]) from 2017, which allows us to follow people's working careers and households' income conditions over four years. The focus of the analysis is on the most vulnerable workers and households in society and hence on upward mobility.

One important aspect of social mobility is the duration of poverty. The longer the individual stays in poverty, the greater is the likelihood of permanent social exclusion. It is necessary to take the time dimension into account in order to gain a more comprehensive picture of poverty and of the policies that can be effective in tackling it.

Incomes are clearly related to labour market transitions. Exiting poverty generally entails a transition from inactivity or unemployment to employment, while upward wage transitions for low-wage workers often take place when part-time workers get full-time jobs or when temporary workers find permanent occupations ([108]).

The analysis also tests whether there is an education effect in transitions, i.e. whether having a higher education level is linked to higher probability of making upward transitions. To do so, the section compares the performances of individuals at different education levels on two probabilities: the probability that unemployed people will become employed, and the probability that temporary workers will become permanent ([109]). In terms of educational outcomes, the inter-generational component of social mobility is also very important. Research shows that parental background has a significant impact on education and skills outcomes of their children ([110])

The second part of this section explores policy actions that could support the most vulnerable, by helping them to improve their financial and labour market situation. Two types of policies are analysed: (1) minimum income schemes and (2) minimum wage. The analysis focuses on the following questions: What is the impact of the minimum income and minimum wage on work incentives? Are minimum income and minimum wage stepping stones towards better wage and employment opportunities? If so, for whom and under which conditions?

5.2. Income and wage mobility

This section studies income and wage mobility, with a focus on the bottom of the distribution. It looks at the persistence of poverty and at the degree of wage mobility.

([103]) Intergenerational mobility has been the focus of the 2017 edition of Employment and Social Development in Europe review (European Commission, 2017).

([104]) Jarvis and Song (2011).

([105]) Bachmann et al. (2016).

([106]) This was especially true for marginalised Roma living in segregated settlements when the coronavirus pandemic struck, and saw themselves cut from any source of income and formal or informal economic activity, leading to rising unemployment and poverty.

([107]) Longitudinal EU-SILC data are not available for Germany and Slovakia.

([108]) European Commission (2016a), Chapter 2 'Employment dynamics and social implications'.

([109]) This analysis complements European Commission (2019a), which delved into the probability of being employed by level of education and work experience during the highest educational level. In this year's contribution, the focus is on the transitions.

([110]) European Commission (2017), Chapter 3 'Working lives: the foundation of prosperity for all generations'.

5.2.1. Poverty dynamics

The share of the population which experiences poverty is higher when considering a multi-year time span than when looking at one year only. In general, when extending the scope of observation from the usual one year (as cross-sectional data do) to a four-year observation period (which is possible with EU-SILC longitudinal data), it becomes clear that many more people experience episodes of poverty. On average in the EU, 24% of the working age population were below the poverty threshold at some point during a four-year time span (2014-2017), compared to around 16% if only the last year of the survey, 2017, is considered. This shows that the extent of poverty is much wider than usually believed. Increasing further the observation period (beyond the four-year currently allowed by EU-SILC longitudinal data) would show that even more people have experienced poverty at some instance in their life.

Most people who are poor at a point in time have been poor before that point. Looking at the persistence of poverty shows that less than one fifth of the poor in the EU-SILC data were 'new poor' (i.e. poor for one year), meaning that they had not experienced poverty during the previous three years. On average, 69% of the poor had been poor also the previous year. Moreover, 26% were recurrently poor, they had escaped poverty the previous year, but fell into poverty again ([111]).

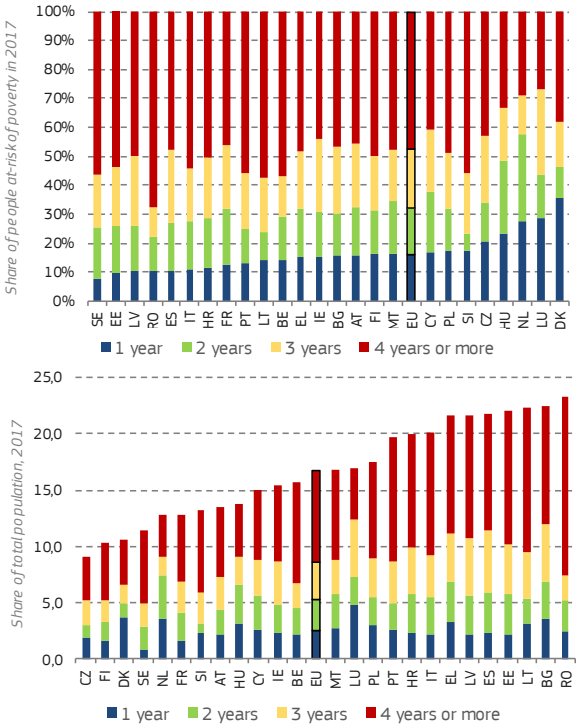
The persistent at-risk-of-poverty rate ([112]) allows the identification of people who live with low income for long periods of time. At EU level:

- 16% of those who were poor in 2017 (and present in the data for all four years) had not experienced episodes of poverty during the previous three years (i.e. were only poor in 2017);
- 16% were poor during two of the four years analysed;
- 20% were poor for three years; and
- and 48% of those poor in 2017 had been poor since 2014 (*Chart 2.12*, first panel).

Chart 2.12

Persistence of poverty differs a lot across the EU

Duration of poverty among individuals at-risk-of-poverty (first panel) and among the total population (second panel), 2014-2017



Note: The first panel is based on a sample that includes all individuals at-risk-of-poverty in 2017 who are present in the data in all four years (2014, 2015, 2016 and 2017). The second panel is based on a sample that includes the whole EU population in 2017. Therefore the height of each country-specific bar in the second panel is equal to the at-risk-of poverty rate in 2017 in that country (as based on the longitudinal data, which could slightly differ from the at-risk-of-poverty rate based on the cross-sectional data). EU average is unweighted.

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

Poverty is a dynamic phenomenon that varies across countries. Entry and exit rates from poverty ([113]) are highly correlated with the poverty levels in one year (*Chart 2.13*). Unsurprisingly, in countries with higher poverty rates the risk of falling into poverty (entry rates, second panel in *Chart 2.13*) and remaining stuck in it (exit rates, first panel in *Chart 2.13*) are higher than in countries with lower poverty rates. Entry and exit rates from poverty are largely linked to economic events ([114]), and labour market outcomes play a major role. However, demographic events also play an important role in poverty transitions ([115]). For example, changes in the number of household members (due to the birth of a child, a new partner, separation or divorce, death, etc.) and falling ill are found to be strongly linked with entries and exits from poverty.

([111]) These shares reflect a period of long economic growth. The proportions might differ in 2020 and following years as a result of the COVID-19 crisis.

([112]) The persistent at-risk-of-poverty rate is defined as the share of people who are currently poor and were also poor 2 out of the 3 previous years.

([113]) Previous studies on poverty dynamics have also revealed high levels of mobility into and out of poverty (Vaalavuo, 2015).

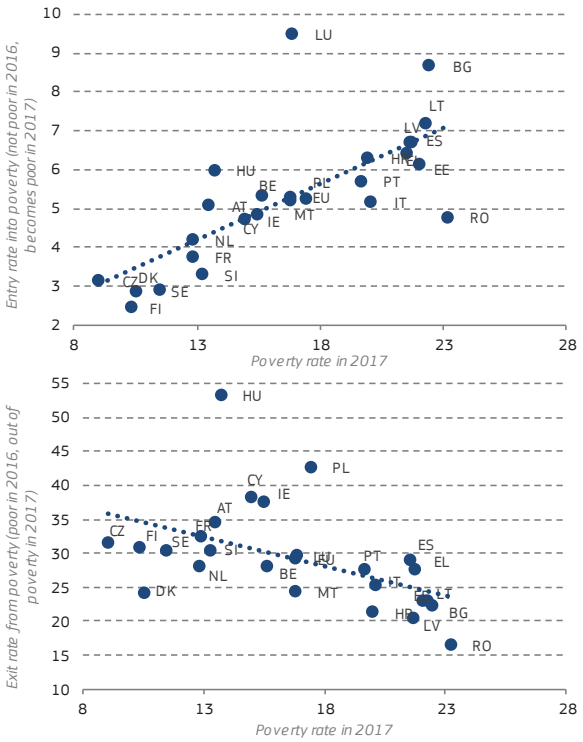
([114]) Layte and Whelan (2003).

([115]) Polin and Raitano (2014).

Chart 2.13

In countries with higher poverty rates the risk of falling into poverty and remaining stuck there are higher

Scatter plots of exit rate out of poverty and poverty rate (first panel) and entry rate into poverty and poverty rate (second panel), year-on-year transitions 2016-2017.



Note: EU average is unweighted.

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

Table 2.2

Relative income mobility is higher in the middle of the distribution and increases with the time-span

Two-year, three-year and four-year transition matrix by disposable income deciles, EU

		1	2	3	4	5	6	7	8	9	10
2016 deciles	1	62,2	18,5	7,2	4,1	3,0	2,3	1,5	0,8	0,8	0,9
	2	19,6	45,1	16,1	7,6	5,0	2,0	1,3	0,9	0,4	0,5
	3	6,9	20,3	39,5	15,6	7,8	3,7	2,4	1,3	1,1	0,5
	4	3,9	7,0	22,0	35,9	15,8	7,9	4,4	2,0	1,4	0,8
	5	2,5	4,0	6,8	20,7	36,1	15,5	7,7	3,8	2,0	1,0
	6	1,6	1,9	3,6	8,1	19,7	36,4	15,9	7,0	3,4	1,5
	7	1,1	1,2	2,2	4,3	6,5	20,9	38,2	17,7	6,2	2,9
	8	0,9	0,9	1,3	2,0	3,7	6,6	20,1	41,7	17,6	4,2
	9	0,7	0,7	1,0	1,1	1,6	3,2	6,3	20,3	50,1	15,6
	10	0,7	0,6	0,5	0,7	0,8	1,4	2,2	4,5	17,1	72,2
2015 deciles	1	53,3	18,7	9,9	5,5	4,0	2,9	2,1	1,5	1,1	0,9
	2	22,0	38,6	15,2	9,0	4,9	2,7	2,8	1,4	0,9	0,5
	3	9,2	22,9	32,7	16,3	9,3	5,6	2,8	1,4	1,5	0,6
	4	4,9	7,4	22,7	28,4	15,5	9,4	5,5	3,0	1,9	1,1
	5	3,8	4,8	8,4	20,6	28,6	15,8	8,9	4,7	2,9	0,9
	6	1,9	2,9	5,2	9,3	20,4	28,5	15,8	8,8	4,3	2,5
	7	1,7	1,8	2,8	5,4	9,5	20,3	29,9	17,9	8,1	3,2
	8	1,1	1,3	1,4	2,9	4,5	8,9	21,7	33,9	17,5	6,5
	9	1,1	1,0	1,0	1,7	2,3	4,0	7,7	21,1	42,3	17,5
	10	1,1	0,6	0,8	0,9	1,1	2,1	2,9	6,4	19,4	66,2
2014 deciles	1	51,4	22,3	14,3	10,5	7,8	7,1	5,9	5,2	5,1	5,5
	2	22,7	32,7	14,2	8,9	5,8	3,8	2,6	1,5	1,3	0,9
	3	8,9	21,2	27,2	13,3	8,6	6,8	3,5	2,0	1,7	1,0
	4	5,2	10,1	20,8	24,2	15,2	9,1	6,3	3,2	2,0	1,1
	5	3,3	4,8	9,3	19,6	23,7	14,1	9,8	4,7	4,3	1,0
	6	2,6	3,3	5,9	10,6	19,5	22,9	13,5	10,1	6,1	1,6
	7	2,2	2,0	3,6	6,9	9,1	19,8	25,6	14,8	9,7	4,2
	8	1,4	1,8	2,9	2,8	5,6	9,1	21,3	30,6	18,1	6,7
	9	1,3	0,9	1,3	2,3	2,7	4,9	8,5	20,6	33,5	18,8
	10	1,1	0,8	0,6	1,0	2,0	2,4	2,9	7,4	18,4	59,2

Note: All EU countries shown together. Figures refer to two-year transitions in the first panel (2016-2017), three-year transitions in the second panel (2015-2017) and four-year transitions in the third panel (2014-2017).

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download table.

5.2.2. *Income dynamics*

Income mobility can be defined both in relative and in absolute terms and it can be both upward and downward ([116]). Relative income mobility is about reaching a better or worse position in the income distribution. Relative improvements and deteriorations in income do not necessarily imply a change in the absolute income level. Absolute income mobility refers to changes in the income level one started with. This section deals with both relative and absolute intra-generational income mobility. It starts with relative mobility across deciles of the income distribution, and then looks at absolute mobility in terms of significant increases or losses of income.

The chances of relative income increasing over time – or the risks of it deteriorating – vary considerably across the different income deciles (segments of the income distribution) ([117]). Overall, relative income mobility is higher in the middle of the distribution (i.e. fourth, fifth and sixth deciles), while it is lower towards the extremes. In addition, relative income mobility increases significantly if the time span of observation is expanded from two years to four years (*Table 2.2*). This confirms that income mobility is a relatively slow phenomenon and the likelihood of improving the income position increases over time ([118]).

([116]) The concept of income used throughout the analysis is that of disposable income which include both market income sources and welfare state sources. Market income sources are: wages, self-employment income, capital income, public and private pensions. Welfare income sources include both household and individual benefits, as well as taxes on income and wealth. Wages are the main source of disposable income across all EU countries, though their weight ranges between 65% in Italy and Greece to above 90% in Denmark, Germany, Netherlands and Sweden (based on 2018 EU-SILC cross-sectional data).

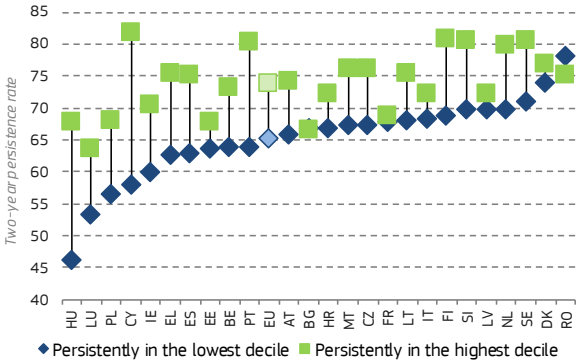
([117]) European Commission (2016a), Chapter 2 'Employment dynamics and social implications'.

([118]) Bachmann et al. (2016).

Chart 2.14

Low income mobility at the extremes of the distribution, and top incomes strongly persistent

Two-year persistence rates in the lowest and highest deciles (2016-2017)



Note: EU average is unweighted.

Source: Own calculations based on EU-SILC longitudinal microdata, 2017 UDB.

Click here to download chart.

The top and the bottom of the relative income distribution are highly persistent, with high income rankings even more persistent than low income rankings. Low mobility at the top of the distribution indicates that people in the top decile are well shielded against the risk of losing their top ranking position as they are less likely to move down in the income distribution than people in other income deciles ([119]). Low income mobility at the bottom is known as the 'sticky floor' effect, a pattern that persistently keeps people with low incomes at the bottom of the distribution. Overall, at EU level, 74% of people with very high incomes (those in the 10th decile) do not see their relative income position deteriorate from one year to the next, and are persistently high income-earners (*Chart 2.14*). High incomes are the most stable in Cyprus, Portugal, Slovenia, Finland, Sweden and the Netherlands. At the very bottom (individuals in the 1st decile), 65% of people do not see their relative income condition improve year-on-year. The main differences in patterns of income mobility across countries are at the bottom of the income distribution rather than at the top ([120]). This is important evidence also in light of the growing pessimism about people's chances of improving their income prospects and financial situation over the short term. These expectations, which are strongly interrelated with fairness perceptions, are likely to deteriorate in the context of the current COVID-19 crisis, as they deteriorated during the financial crisis ([121]).

([119]) Note that absolute income changes at the top are less likely to result in a change of decile, compared to absolute income changes at the bottom. This is due to the fact that bottom deciles are typically more 'compressed' than the top deciles.

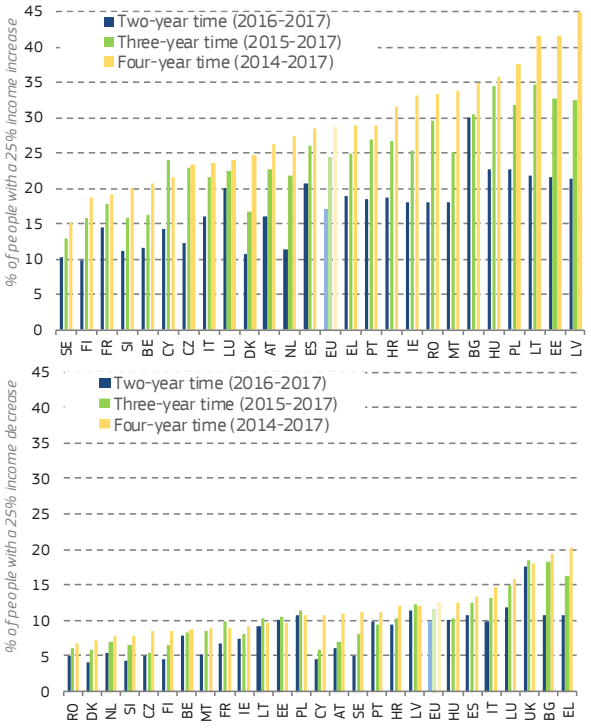
([120]) Jäntti and Jenkins (2013).

([121]) OECD (2018).

Chart 2.15

Significant improvements in incomes are more common than significant income deterioration in a stable growth period

Proportion of people who improve their disposable income by more than 25% (first panel) or decrease their disposable income by more than 25% (second panel), in two-year (2016-2017), three-year (2015-2017) and four-year (2014-2017) time spans



Note: EU average is unweighted.

Source: Own calculations based on EU-SILC longitudinal microdata, 2017 UDB.

Click here to download chart.

In absolute terms, upward income transitions of more than 25% are more common than downward income transitions of more than 25%. At the EU level:

- 17% of people have seen their income improve by more than 25% in two years;
- This 17% goes up to 25% if the time horizon is three years and 29% if it is four (*Chart 2.15*, first panel).

Baltic countries (Latvia, Estonia and Lithuania) have the highest proportion of people (above 40%) who saw their income increase significantly over a four-year period. Between 6 and 9% of individuals in the EU as whole lost more than 25% of income within two to four years (*Chart 2.15*, second panel). This is clearly linked to becoming unemployed Greece and Bulgaria saw the highest proportion of people experiencing significant income deteriorations. This evidence refers to a stable income growth period (2014-2017). Clearly, in a crisis period significant income deteriorations may well become more common.

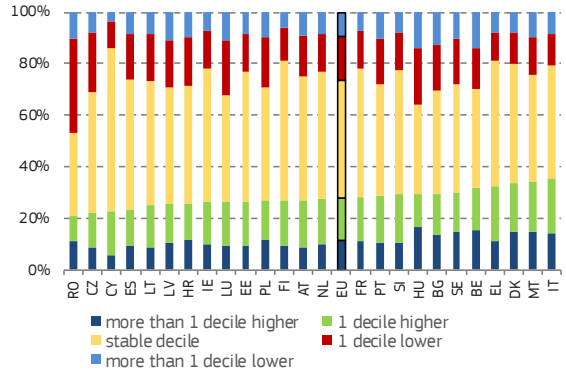
5.2.3. Wage dynamics

Whether and how individuals' wages change over time is important in terms of fairness perceptions. The extent and direction of relative wage mobility provide important insights into the possibilities of improving individuals' wage position over time (or the risks of their position deteriorating). However, the extent of upward and downward relative wage mobility may change over time and across the different segments (i.e. bottom, middle and top) of the wage distribution, as well as across different population groups.

Chart 2.16

The extent and direction of wage mobility differs significantly across EU countries

Hourly wage transitions within deciles over two years (2016-2017)



Note: Countries are ranked from left to right according to increasing upward wage transition (given by the sum of the dark blue and green bars). Hourly wages are defined in footnote 122. EU average is unweighted.

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

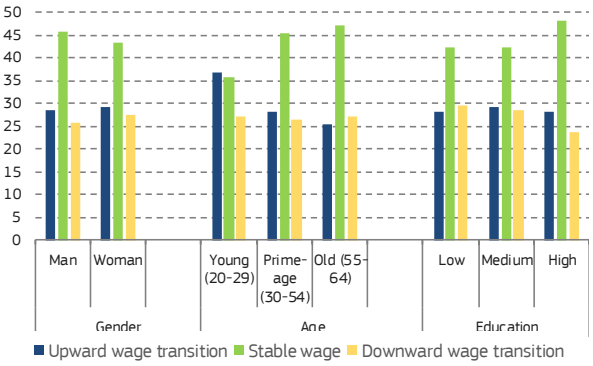
Countries differ a lot in the extent and direction of relative wage mobility. From one year to the next (2016-2017) around 46% of employees maintained their hourly wage decile ([122]), while 28% moved upward by at least one decile, and 26% moved downward (*Chart 2.16*). At country level, Romania showed the highest downward mobility (47%) and the lowest upward mobility (21%) ([123]) while Italy had the exact opposite situation (21% downward mobility and 36% upward mobility). Wage stability was highest in Cyprus (64% of employees did not change their wage decile). In general, mobility increases with the time span considered, especially at the bottom of the wage distribution.

Some individual characteristics influence wage mobility more than others. Empirical evidence shows that differences between women and men in relative hourly wage mobility are rather minimal across most Member States. By contrast, age seems to play an important role. Upward hourly wage transitions are more common among younger people (aged 20-29) while older workers (aged 55-64) have the lowest chances of improving their wage decile from one year to the next, given their seniority premium and generally higher wage level. In general, young workers experience the highest wage volatilities; they also have very high chances of moving down in the wage distribution. As concerns education, low and medium educated workers have the highest wage mobility (*Chart 2.17*). Highly educated people tend to maintain their (generally) high hourly wage level over time (i.e. 48% wage stability among highly educated employees based on year-on-year transitions). At the same time the risk of downward wage mobility is lowest (below 25%) among highly educated employees.

Chart 2.17

Upward wage mobility highest among younger people and downward wage mobility lowest among the most educated employees

Hourly wage transitions between deciles in two years (2016-2017), by individual characteristics, EU



Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

The dynamics of low-wage earners are of particular interest ([124]). How much persistence is there in low wages? What are the chances of low wage earners moving upward and what individual factors facilitate this transition? The likelihood of low-wage workers improving their financial situation is an important aspect of social mobility. While young people entering the labour market are expected to start at low wages (differentiated along a number of characteristics, including their skills and educational

([122]) The wage information in EU-SILC is available at annual level. Hourly wages are calculated as annual wages divided by annual hours worked. Annual gross wages are available in the survey (variable PY010G), while annual hours worked are derived as total weeks worked per year (variables PL073 and PL074) multiplied by total hours worked per week (variable PL060). Given the discrepancy in EU-SILC between the income reference year (e.g. 2016 in EU-SILC 2017) and hours worked and employment status (2017 in EU-SILC 2017) and given that longitudinal data have been used in this analysis, the discrepancy is removed by using hours worked and employment status relative to the income reference year. Throughout the analysis nominal wages (i.e. not adjusted for consumer prices) are used.

([123]) Real wages in Romania have been growing at double-digit rates (year-on-year) since late 2015 (D'Adamo et al., 2019). Hence, a deterioration of wage decile may not necessarily imply an absolute wage deterioration as the median wage increased considerably over time.

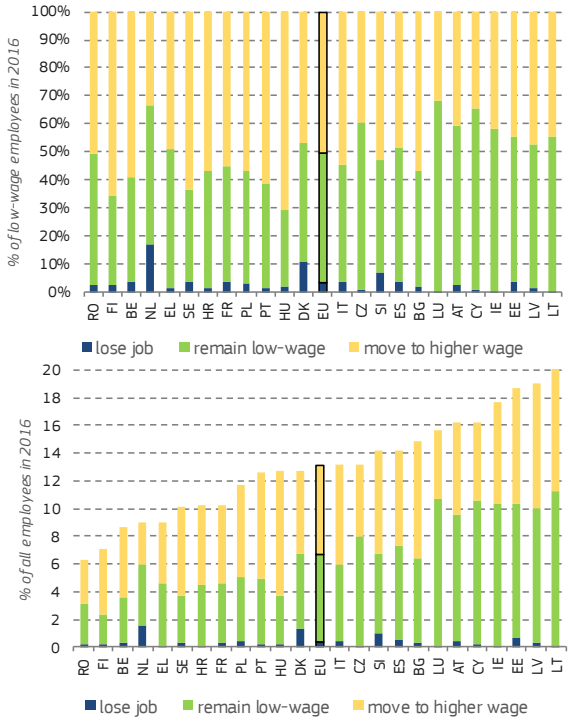
([124]) Low wages can be defined in many ways. The definition used in this chapter (low-wage earners are those with a wage below two-thirds of the country median hourly wage) is relative to the median wage in the country. The same definition is used in a Eurostat working paper (Ponthieux, 2010). Another relative definition of low-wage earners could for example include all employees in the bottom two (or three) deciles in the group of low-wage earners (see Lucifora and Salverda 2009 for a review of the topic).

level), wage models based on a life-cycle perspective – such as the Mincer earning function ([125]) - predict that remuneration increases as experience is gained. Nevertheless, experiences of low remuneration increase the risk of future low-wage episodes. The phenomena of state dependence in low-wage situations may give rise to the so called 'low-wage careers'.

Chart 2.18

Around half of low-wage employees improved their wage level from one year to the next in the EU

Low-wage earners' transitions towards job loss, stable wage or higher wage level over two years (2016-2017), as a proportion of low-wage employees in t-1 (first panel) and all employees in t-1 (second panel)



Note: Low-wages defined in footnote 124. EU average is unweighted.

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

Low wages seem to be a transitory phenomenon in most EU countries. Overall, at EU level 50.2% low-wage employees move to higher wages from one year to the next, while a lower proportion (46.5%) remain stuck with low wages (*Chart 2.18*, first panel). Only 3.3% of low-wage employees lose their job year-on-year, though this risk is considerably higher in some countries (such as the Netherlands ([126])) and is also likely to increase in the context of the COVID-19 crisis, given that vulnerable workers (such as young people with low wage levels) seem to be the most at risk of losing their jobs ([127]) as happened during the 2008 crisis ([128]).

5.2.4. Labour market transitions

The chances of escaping poverty and low wages, or of experiencing improvements in one's financial situation more generally, are strongly linked to labour market dynamics. The literature in the field shows that labour market transitions from and to employment are important for income transitions ([129]), and to build a fairer society.

Table 2.3

Temporary employees, especially part-time, are the most mobile individuals in the EU labour market

Two-year labour market transitions matrix (2016-2017), EU

2016 \ 2017	Permanent full-time employee	Permanent part-time employee	Temporary full-time employee	Temporary part-time employee	Self-employed	Inactive	Unemployed
Permanent full-time employee	90,8	2,2	1,5	0,2	0,8	2,7	1,8
Permanent part-time employee	13,6	73,8	0,7	1,9	0,9	5,3	3,8
Temporary full-time employee	22,7	1,3	56,4	3,4	1,8	3,4	11,2
Temporary part-time employee	6,2	11,1	9,9	47,6	1,8	7,3	16,2
Self-employed	3,3	0,8	1,2	0,3	89,0	3,3	2,3
Inactive	2,8	1,4	2,6	1,4	1,6	84,0	6,3
Unemployed	7,8	1,6	9,8	4,2	3,3	14,1	59,3

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download table.

Employees with temporary contracts and unemployed people are the most exposed to changes on the labour market, but the risk of downward transitions is high for those groups. In particular, more than half of temporary workers with part-time jobs change status the following year ([130]) (*Table 2.3*). The risk of becoming unemployed or inactive is high in this group (23.5%) and higher than the chances of getting a permanent job (17.3%). Temporary employees with full-time jobs have better prospects in the short term. Almost one quarter of them get a permanent position the next year (24%) while a lower proportion (14.6%) risk becoming unemployed or inactive. 59.3% of unemployed people in the EU remain unemployed and 14.1% move to inactivity. For inactive people the figures are worse. Indeed the vast majority of inactive (84%) remain inactive in the following year. For contrast, only 9.8% transit into some type of employment. Permanent full-time employees and self-employed are the most stable groups on the labour market in terms of status.

([125]) The Mincer (1958) earnings function is a single-equation model that explains wage as a function of schooling and experience, named after Jacob Mincer.

([126]) In the Netherlands the relatively low share of employees with low wages (below 9.0%, against an EU average of 12.4%) and the low proportion of low-wages employees who improve their wage level from one year to the next, make low-wage jobs a relatively uncommon, but also unattractive option in this country.

([127]) ILO (2020).

([128]) European Commission (2017).

([129]) See, among others, Bourreau-Dubois, Jeandidier and Berger (2003); Polin and Raitano (2014).

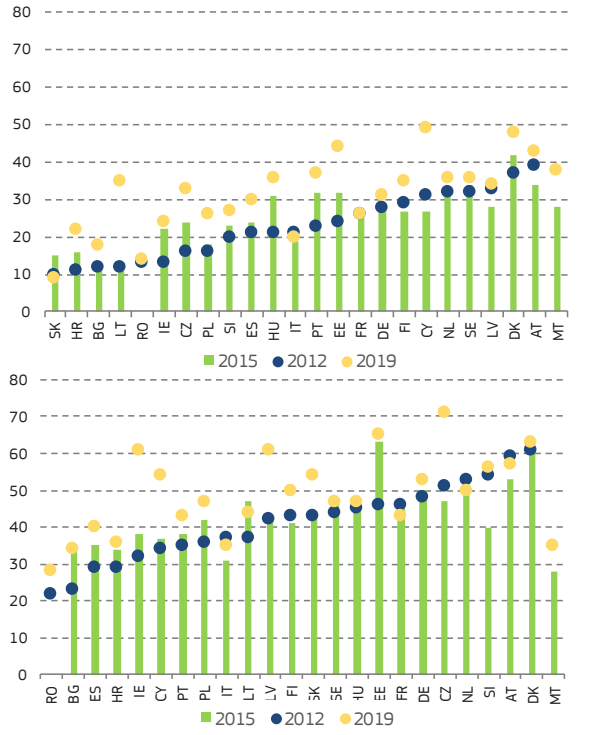
([130]) *Table 2.3* presents transitions across different labour market statuses from one year to the next. Seven different labour market statuses are reported. There are four employee profiles which combine contractual condition (temporary vs. permanent jobs) and working time arrangement (part-time vs. full-time jobs). In addition to these four types of employees there are self-employed, unemployed and inactive individuals.

Transitions from unemployment to employment are persistently higher among highly educated people ([131]). Focusing on the transitions from unemployment to employment, higher levels of education are linked to a higher probability of finding a job within 12 months. While this relationship has already been shown for the US ([132]) and the EU ([133]) labour markets in previous years, the evidence presented in this section confirms it, using the latest EU data. *Chart 2.19* displays the probabilities of low and highly educated people being in (or transitioning to) employment, obtained through logit regressions controlling for age and sex. On average, the probability of being employed increased for all levels of education between 2012 and 2019). This is probably linked to simultaneous improvements in the labour market (the employment rate in the EU increased from 67.6% to 73.1% in that time) ([134]). Sadly, these probabilities are likely to decrease following the Covid-19 crisis as it is expected that total employment will drop.

Chart 2.19

Higher levels of education raise the chance of finding a job within 12 months

Probability of unemployed with low (above) and high (below) education, to find a job within 12 months in 2012, 2015, and 2019 in EU.



Note: Data available for BE and LU only for 2019 and therefore excluded. Data missing for RO in 2012 and 2015, and for MT in 2012.

Source: Own calculations based on Eurostat experimental LFS flow statistics.

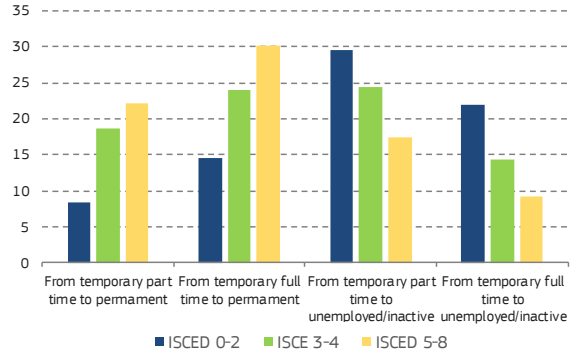
Click here to download chart.

Heterogeneity among Member States remains high, for institutional and historical reasons. While the transition rates from unemployment to employment improved almost universally (only in Italy did the probability of finding a job decrease for all groups), there remains a significant heterogeneity among countries. In 2019, unemployed people in the best-performing countries were more than three times as likely to find a job as unemployed people in the worst-performing countries. However, this is better than after the last (financial) crisis, when the probability of unemployed people finding a job ratio in the best-performing countries was more than six times as high as in the worst (notably Greece, the Member State most affected). Institutional factors, such as employment protection legislation and unemployment benefits, contribute to the heterogeneity ([135]). This heterogeneity may contribute to the different levels of fairness individuals perceive.

Chart 2.20

Higher levels of education raise the chance of finding a job within 12 months

Two-year labour market transitions (%) (2016-2017), EU



Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

In addition, education plays a role in transitions from temporary work to permanent work. The beneficial effects of a higher education level are also visible in other labour market transitions. For instance, *Chart 2.20* reports the aggregate rate for year–on-year labour market transitions of temporary workers, both part-time and full-time, based on EU-SILC data for 2016 and 2017. In 2016, tertiary-educated people with temporary contracts were twice as likely to obtain an open-ended contract within 12 months than those with only primary education ([136]). Conversely, those with only primary education were around twice as likely to be unemployed and inactive in the same time span. Results are similar at Member State level, although with differences across countries, in terms of both levels and the size of variations.

([131]) Note that overall around one quarter of unemployed become employed (including self-employment) within 12 months (*Table 2.3*).

([132]) Riddell and Song (2011).

([133]) European Commission (2016b).

([134]) Figures are based on Eurostat experimental LFS flow statistics. Descriptive statistics based on EU SILC confirm comparable patterns between unemployment to employment transitions and level of education. Inactivity to employment transitions display similar trends.

([135]) Ward-Warmedinger and Macchiarelli (2013).

([136]) In line with what was discovered by, among others, Högberg, Strandh, and Baranowska-Rataj (2019).

5.3. Minimum income and minimum wages: interactions and effects on individual mobility

Policies related to minimum standards are the core of a fair society, not least because of their positive impact on individual mobility. Minimum income and minimum wage policies are linked to the second principle of fairness presented earlier: fairness requires the most vulnerable to be prioritised and protected, by establishing a 'social floor'. Policies that not only provide income protection, but also create the right incentives to work, help individuals to improve their labour market situation: as a result they may have a positive influence on individuals' perceptions of how fair society is.

This section considers the interaction between minimum income and minimum wage schemes. It does so with a view to improving labour market transitions and achieving better matching, as well as preventing social exclusion. Due to the complexity of minimum income schemes, the analysis focuses on the working age population (20-64) who are not in employment and not eligible for social insurance benefits, or whose entitlement to such benefits has expired. Minimum income schemes are here considered as last resort schemes designed to ensure a life in dignity for individuals and their dependents, combined with access to services and activation measures. Benefits of last resort therefore include social assistance benefits as well as other means-tested assistance payments typically received by families with no other income sources. Minimum wages in the analysis include statutory minimum wages for the majority of Member States. For countries with collectively agreed wage floors, an average is used as proxy ([137]).

The distance between the net minimum income ([138]) and the net minimum wage as a share of the median disposable household income is a measure of financial incentives to get a job. These incentives depend on how much income is lost as someone moves from inactivity (at minimum income) to a job which pays the minimum wage (on which workers would pay a tax) ([139]). Therefore, minimum wage and minimum income should be set in a way in order to enhance work incentives, thus improving their impact on poverty reduction. There is an *'inextricable link between minimum wages, minimum income protection and work incentives for low productive workers'* and for this reason *'... a broad focus on minimum incomes should be taken'* ([140]) ([141]) In some countries (Malta, Luxembourg, Germany, the Netherlands and Ireland), minimum income and minimum wage levels are close to each other and therefore work incentives may be weak (*Chart 2.21*) ([142]). In some other countries (Romania, Greece and Portugal), the difference between minimum income and minimum wage is quite high, raising concerns that minimum income schemes may not provide adequate income replacement. In addition, across all Member States but Ireland and the Netherlands, single childless people receiving the minimum income are generally at-risk-of-poverty, meaning that minimum income schemes do not usually lift recipients out of poverty. By contrast, single childless minimum wage earners are at or above the poverty line in the majority of EU countries.

([137]) All Member States in the EU have minimum wages, set through collective agreements (also called 'collectively agreed wage floors') or legislative provisions ('statutory minimum wages'). The six countries in the EU with collectively agreed wage floors are Austria, Cyprus, Italy, Denmark, Finland and Sweden. For more details on how statutory minimum wages and collectively agreed wage floors relate to each other, see European Commission (2016c) and Eurofound (2020).

([138]) In line with indicators agreed by the EU Social Protection Committee

(https://ec.europa.eu/social/main.jsp?catId=758) for minimum income benchmarking, minimum income levels are identified based on the OECD TaxBEN model

(http://www.oecd.org/social/benefits-and-wages/). This model refers to minimum income benefits as cash benefits 'that aim at preventing extreme hardship and employ a low-income criterion as the central entitlement condition'.

([139]) Note that the comparison between minimum income schemes and minimum wages is not the only possible comparison relevant for the incentive effects of minimum wages. In particular, not everyone who might consider taking up a minimum wage job receives minimum income benefits. People in other circumstances include those on unemployment or disability benefits or those not eligible for the minimum income benefit (e.g. because their partner is working).

([140]) Cantillon et al. (2015).

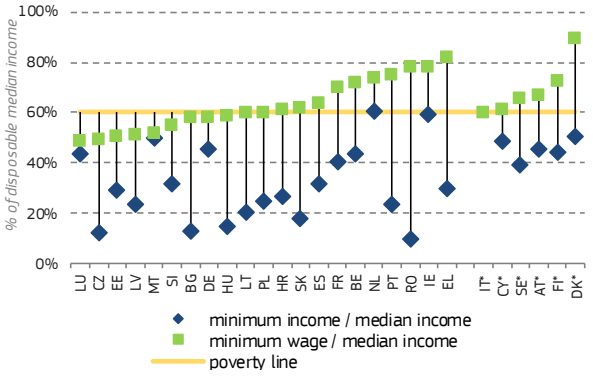
([141]) This approach is also in line with Principle 14 of the Pillar of Social Rights, which states that 'everyone lacking sufficient resources has the right to adequate minimum income benefits ensuring a life in dignity at all stages of life, and effective access to goods and services. For those who can work, minimum income benefits should be combined with incentives to (re)integrate into the labour market'.

([142]) *Chart 2.21* reflects the situation for single childless families. Clearly the variation with family size in minimum income benefits plays an important role in determining work incentives.

Chart 2.21

The distance between minimum income and minimum wage is a measure of financial incentives to get a job

Net household income of a single childless person receiving the minimum income or earning the minimum wage relative to the median disposable household income, 2018



Note: The single childless minimum income earner considered in the chart is entitled to housing benefits (if available) which top-up the social assistance benefits. The single minimum wage worker is not entitled to social assistance and housing benefits. * Figures for countries with collectively agreed wage floors.

Source: Own calculations based on OECD TaxBen model. Median incomes are based on Eurostat flash estimates for BE, DE, ES, FR, IE, LT, LU, MT, PT, SK, UK, CY and IT. For all other countries official Eurostat median incomes have been used.

Click here to download chart.

Chart 2.22

Minimum income does not seem to be a major work disincentive

Factors connected to transitions from inactivity/unemployment to employment

Note: Average marginal effects of logit regression multiplied by 100 are shown in the Chart. The model also includes country fixed effects. Full model available upon request. The relative income is defined as the individual disposable income minus the poverty threshold as a share of the latter.

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

A crucial question in this context is: are minimum income and minimum wage schemes stepping-stones towards better employment opportunities and higher incomes? Exploring longitudinal EU-SILC data helps to answer the following questions: are minimum income recipients likely to find a job, or are they more likely to remain benefit recipients? Do minimum wage earners have good prospects of finding better employment opportunities, at higher wages, or are they more likely to remain minimum wage earners? The section explores factors connected to chances of exiting minimum income and minimum wage.

The effect of having received minimum income benefits on the probability of being employed the following year has been analysed through a logit regression ([143]) (*Chart 2.22*). Minimum income benefits are here considered as all non-contributory and means-tested benefits available in EU-SILC (see Annex 2.3 for the identification of minimum income beneficiaries). Overall at EU level, the probability of getting a job the following year is around 1 pp lower for those who receive minimum income support compared to those who do not. Although this marginal effect is negative and statistically significant, the magnitude is very low suggesting that the minimum income does not have a major impact on the participation in the labour market. The neutrality of minimum income schemes with respect to access to the labour market is also confirmed by a counterfactual analysis (*Box 2.3*).

All other variables included in the regression report significant relationships. Being in the prime age (30-54) has a positive effect if compared to younger (20-29) and older (55-65) people, whereas being older has the highest negative marginal effect (-4.6 pps). Not surprisingly, education plays a key role in the probability of finding a job. Indeed, the highest level of education is associated with the highest positive effect (13.6 pps) and the general positive correlation between education and transition to employment is confirmed by the marginal effect of medium education (6.8 pps). The relative income ([144]) has a positive and relevant effect, as also shown by the coefficient of its square. This finding confirms that individuals with a very low income – far from the poverty threshold – are stuck outside the labour market and require several other forms of support to sustain their return to work.

Benefiting from a minimum income benefit does not necessarily reduce participation in the labour market. The empirical analysis presented above suggests that on average, minimum income benefit schemes currently in place do not have a significant adverse impact on work incentives. Other recent analyses have led to similar conclusions ([145]). These insights are important as the impact of work incentives is a key concern in policy decisions with regard to the level of minimum income benefits. Available evidence indeed shows that incentives to work play a role in labour market transitions ([146]), in particular as regards transitions from unemployment to work. It is therefore crucial to ensure that minimum income floors protect vulnerable people by representing the lower limit of the larger social protection systems, while avoiding

([143]) In order to ensure targeting only the population potentially eligible for the minimum, the observations in the right-hand tail of the distribution of the relative income are excluded from the regression. The distribution, taking in account only minimum income recipients, is trunked at the value=mean + standard deviation (0.68).

([144]) Relative income is calculated as ((income - poverty threshold)/ poverty threshold). By construction this variable is negative for people below the poverty line and positive for people above the poverty line. The higher the relative income is the higher the income of the person is.

([145]) De La Rica and Gorjón (2019).

([146]) OECD (2005 and 2020).

Box 2.3: Counterfactual analysis on the role of minimum income in getting a job

The neutrality of minimum income schemes in getting a job is confirmed by a counterfactual analysis (where the minimum income represents the treatment). Using the same variables as the logit regression in Chart 2.23, an inverse-probability-weighted regression adjustment model (IPWRA) ([1]) has been produced. The average treatment effect ([2]) for the people receiving the minimum income in 2016 (ATET) is reported (Table 1). Their probability of finding a job in 2017 is only slightly lower (-0.39 pps) than it would have been if they had not received the minimum income (16.41%) ([3]). The average treatment effect (ATE) is also shown in Table 1. It refers to what would have been observed if the entire population had been treated (i.e. if they had all received the minimum income), and it is -0.28 pps lower than the baseline probability (15.47%), the average probability of transition to employment in the population if no one had been treated. Such results confirm that the disincentive to work determined by the minimum income is low, and not large enough to outweigh the benefits deriving from its income support to the most vulnerable.

Table 1
Effect of receiving minimum income (1) on the probability of moving into employment, relative to people not receiving minimum income (0).

Transition to employment	Coeff.	Robust Std. Err.
ATET		
Minimum Income		
(1 vs 0)	-0.39 (pps)	0.0000
Potential Output mean		
Minimum Income		
0	16.41 (%)	0.0000
ATE		
Minimum Income		
(1 vs 0)	-0.28 (pps)	0.0001
Potential Output mean		
Minimum Income		
0	15.47 (%)	0.0000

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

([1]) In the implementation of the underlying logit model on the likelihood of being minimum income recipient in 2016, we only use non-monetary micro variables and country dummies, whereas the entire set of variables is used for the underlying logit model predicting the employment status in 2017.

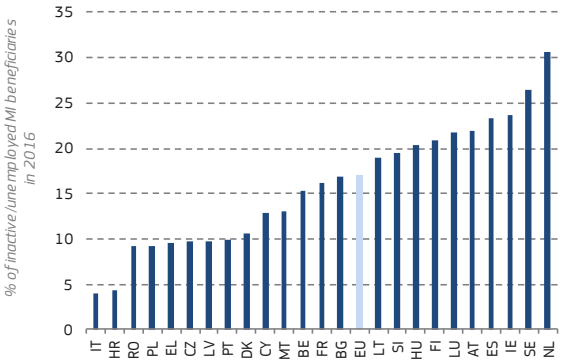
([2]) The average treatment effect is the effect we would have observed had the entire population been treated.

([3]) In order to understand how this model constructs measurements of these unobserved potential outcomes (counterfactuals), see: https://blog.stata.com/2015/07/07/introduction-to-treatment-effects-in-stata-part-1/

disincentives to work. At the same time a combination of passive and active policies is key to avoid any potential work disincentives arising from cash transfers through minimum income support ([147]). Recent literature also shows that there is no significant trade-off between the adequacy of out-of-work benefits and public expenditure on active labour market policies ([148]).

Overall, slightly more than one sixth of minimum income beneficiaries without a job get one the following year *Chart 2.23*). This proportion is not significantly different from that of non-minimum income beneficiaries getting a job from one year to the next.

Chart 2.23
Around one-sixth of minimum income beneficiaries without a job get one the following year in the EU
Transition rates from inactivity/unemployment to employment within two years (2016-2017)



Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.
Click here to download chart.

([147]) Frazer and Marlier (2016); De La Rica and Gorjón (2019).

([148]) Iacono (2017).

In many cases minimum wage acts as a stepping stone towards higher wages ([149]) and reduces the risk of job separation (and wage deterioration), as well as the risk of having stagnant wages. This is what emerges from an ordered logistic regression (*Chart 2.24*). It analyses the factors that lead to:

- increasing the wage level by at least 25% (green bars),
- wage stability (yellow bars), and
- decreasing the wage level by at least 25% or the job separation (blue bars)

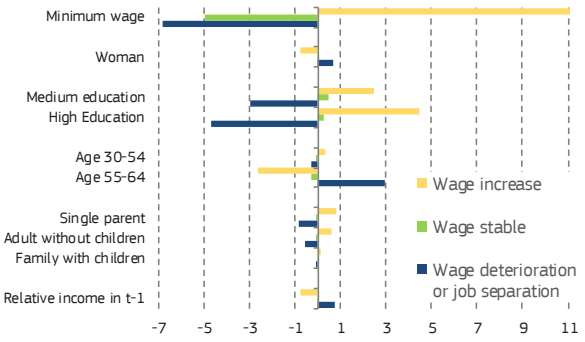
from one year to the next (2016-2017). ([150])

When considering wage progression of minimum wage earners vis-a-vis earners elsewhere in the wage distribution, our analysis finds that workers receiving minimum wages ([151]) stand a 11.8 pps higher chance of significantly improving their wage in the short term than others. This finding underscores that minimum wage jobs can be a stepping stone towards higher wage jobs and is in line with available evidence on single countries ([152]). Along the same lines, receiving a minimum wage decreases by -4.9 pps the risk of having stagnant wages from one year to the next. Most importantly, receiving a minimum wage decreases the risk of significant wage deterioration by -6.8 pps in the following year, including the risk of job separation. The regression models also control for socio-demographic characteristics, including education. The fact that better educated workers stand better chances of positive wage transitions (as shown in section 2.3) is therefore taken into account. However, it does not take into account second-round workforce composition effects which impact on average productivity. Overall a separate analysis of the German data (German Socio-Economic Panel, SOEP) over the period 2004-2017 supports the general findings of the positive impact of the minimum wage (*Box 2.4*).

Chart 2.24

In many cases minimum wage can act as a stepping stone towards higher wages

Average marginal effects (%) from an ordered logit regression – Dependent categorical variable: wage increase of at least 25% from one year to the next (yellow bars), wage broadly stable from one year to the next (green bars), wage decrease of at least 25% from one year to the next, which includes job separation (blue bars)



Note: All variables reported are statistically significant. The model also includes country fixed effects. Reference categories are: no minimum wage earner, man, age 20-29, single person Full model available upon request. The relative income is defined as the individual disposable income minus the poverty threshold as a share of the latter.

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

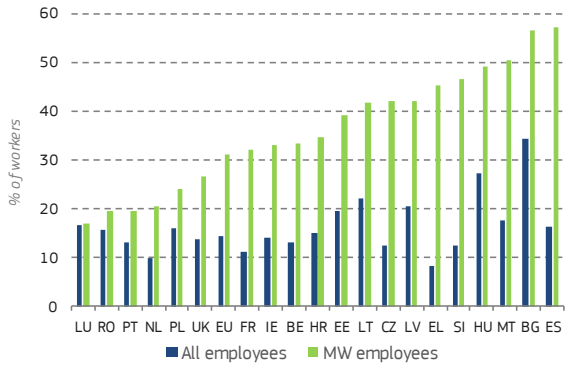
Click here to download chart.

The role of minimum wages as stepping stones towards significantly higher wages varies substantially across the EU. In some countries (e.g., Spain and Bulgaria) more than half of minimum wage earners saw their wage level improve by at least 25% above the statutory minimum wage between 2016 and 2017 (*Chart 2.25*). This improvement was below 20% in Luxembourg, where no significant differences from upward transitions for all employees were measured.

Chart 2.25

More than one in four minimum wage workers improve their wage level significantly year-on-year

Upward wage transition of at least 25% within two years (2016-2017), among all employees and minmum wage earners only



Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB. Only countries with statutory minimum wage are included in the Chart.

Click here to download chart.

The magnitude of the minimum wage's country-specific stepping stone effects is estimated through a logit model. Interactions between the minimum wage dummy variable and countries have been included and their marginal effects on the probability of increasing the wage by at least 25%

([149]) Note that people at the bottom of the wage distribution have higher chances of moving upward than those who already have higher wages and this is true both in presence and in absence of a statutory minimum wage.

([150]) The three aspects constitute the three different categories of the dependent variable used in the ordered logit regression.

([151]) To identify minimum wage, the full-time equivalent gross monthly wage has been calculated by dividing the EU-SILC variable of annual cash gross earnings (PY010G) by the number of months worked in full-time jobs (PL073) plus the number of months worked in part-time jobs (PL074). However, the number of months worked in part-time jobs is scaled down by a country-sex specific factor equal to the ratio of median hours of work in part-time jobs to median hours of work in full-time jobs. This methodology has been used in other studies on minimum wages (Brandolini et al., 2010; Eurofound, 2019). By estimating the number of respondents who earn an income that is equivalent to the annualised national minimum wage, it is possible to approximate the percentage of workers in each country who earn the minimum wage. A minimum wage earner will be considered as an individual whose full-time equivalent gross monthly wage ranges between 80% and 105% of the monthly minimum wage for a full-time employee.

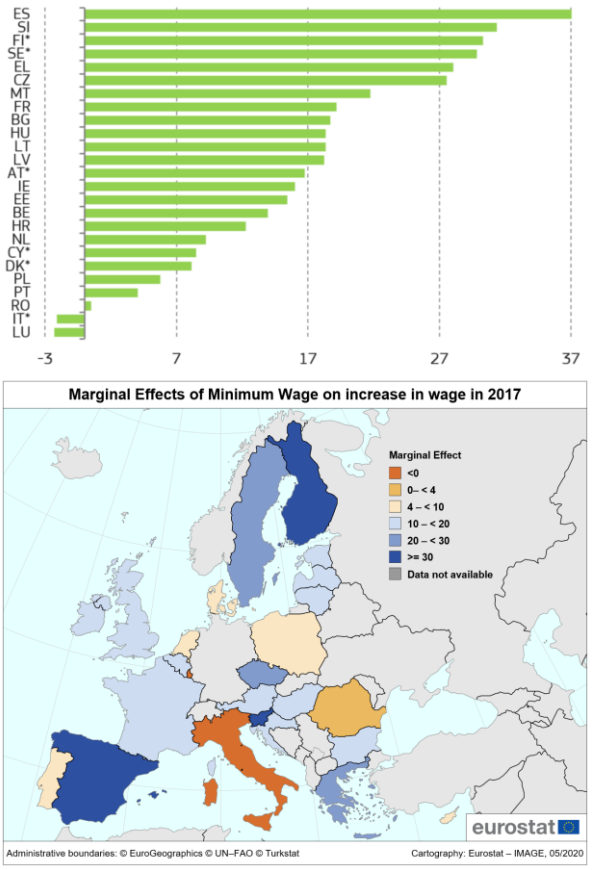
([152]) Jones et al. (2005).

from one year to the next are calculated accordingly (*Chart 2.26*). The analysis shows that in the short run (year-on-year transitions) the minimum wage plays a role as a stepping stone to significant higher wage levels in all countries except Luxembourg (and Italy, which however is one of the six countries in the EU with collectively agreed wage floors).

Chart 2.26

The stepping stone role of minimum wages is generally high, but there are big differences across the EU

Country-specific effects of being a minimum wage worker on the probability of upward wage transition by at least 25% within two years (2016-2017)



Note: Average marginal effects of logit regression (%) are shown in the Chart and in the map. The model also includes the following variables: gender, educational level, age groups, household composition, relative income. Reference categories are: no minimum wage earner, man, age 20-29, single person Full model available upon request. The relative income is defined as the individual disposable income minus the poverty threshold as a share of the latter. *Member States with collectively agreed wage floors taken from Eurofound (2019).

Source: Own calculations based on EU-SILC longitudinal micro-data, 2017 UDB.

Click here to download chart.

Spain is the country in the EU where workers earning the minimum wage have the highest chance of a significant wage increase year-on-year. More precisely, the probability of significant upward transition between 2016 and 2017 was 37 pps higher for a minimum wage worker than for other workers in Spain. Other countries with a high effect include Slovenia, Greece, Czech Republic, and Malta (Finland and Sweden among the six countries with collectively agreed wage floors) ([153]). The effect is medium-high ([154]) in France, Bulgaria, Hungary, the three Baltic countries and Ireland (plus Austria among the six Member States with collectively agreed wage floors). A medium level ([155]) is found in Belgium and Croatia. The effect is medium-low ([156]) in the Netherlands and Poland (plus Cyprus and Denmark among the six countries with collectively agreed wage floors), low in Portugal and very low in Romania.

([153]) In these countries minimum wage earners are at least 20 pp more likely than non-minimum wage earners to have managed upward wage transition between 2016 and 2017.

([154]) In these countries the likelihood of upward transition is above 15 pps but below 20 pps higher for minimum wage workers.

([155]) In these countries the likelihood of upward transition is above 10 pps but below 15 pps higher for minimum wage workers.

([156]) In these countries the likelihood of upward transition is above 5 pps but below 10 pps higher for minimum wage workers.

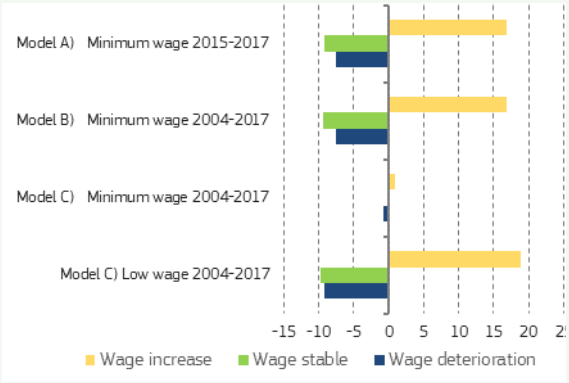
Box 2.4: The minimum wage in Germany.

The minimum wage, introduced in Germany in 2015, has not hindered the process of upward wage mobility and the improvement of the labour market conditions of the earners. The analysis of German data ([1]) over the period 2004-2017 supports the general findings of the section concerning the positive impact of the minimum wage (MW). Chart 1 presents the main results from a set of logit models, where the dependent variable is a categorical variable built on three different wage transitions from one year to the next: wage increase of at least 25% (yellow bars), wage broadly stable (green bars), or wage decrease of at least 25%, which includes job separation (blue bars).

Chart 1

Minimum wage does not prevent upward wage convergence

Average marginal effects (%) from an ordered logit regression – Dependent categorical variable: Wage increase of at least 25% from one year to the next (yellow bars), wage broadly stable from one year to the next (green bars), wage decrease of at least 25% from one year to the next, which includes job separation (blue bars)



Note: All reported coefficients are statistically signficant at 5%.
Source: JRC calculations based on SOEP micro-data.

The first specification (A) represents the baseline regression including the main variable of interest (MW) and additional control variables. This model, covering only the last 3 years (2015-2017), shows the positive impact of the minimum wage: -7.5% for the wage decreasing transition, -9.2% for stable wage and +16.7% for wage increasing transition.

The second specification (B) adds the years 2004-2014, when the statutory MW was not in place, as counterfactual observations. However, certain wage floors did already exist in Germany before 2015, particularly as an outcome of collective wage negotiations at industry or company level. Nevertheless, in this case, the sectoral wage floors are part of the wage setting process between unions and employers. The results show the impact of the statutory minimum wage on top of the existing labour market institutions and wage setting mechanisms. Model B also includes year dummies to control for aggregate shocks. The results confirm the baseline findings.

The third specification (C) includes an additional covariate capturing low wage earners (LW), which is a dummy variable equal to one for individuals earning less than 60% of the median FTE full-time equivalent income from work. The 60% threshold is broadly consistent with the level of the minimum wage in 2015 and 2016: the Kaitz index ([2]) calculated from the data is 56% for 2015 and 54.7% for 2016. Consequently, the upper threshold for the MW earner dummy (5% above the minimum wage) is just 1.2-2.6 pps below the low wage threshold of 60%.

This additional regressor significantly reduces the previously estimated impact of the minimum wage. There is no doubt that previous results were also driven by the fact that low wage income earners are, on average, more likely to experience large wage increases in the following period. Nevertheless, the impact estimated in the model C highlighs a positive effect of the minimum wage, although quite small. In other words, workers at the bottom of the wage distribution have higher chances of moving upward than those who already have higher wages and this is true both in presence and in absence of a statutory minimum wage floor. The results show that minimum wages (being these statutory or not) are most likely to be a transitory condition as even in the short run upward transitions are very frequent at the bottom of the wage distribution. This suggests that the adoption of the minimum wage does not seem to have significant adverse effect on employment and wage improvements. These results are broadly consistent with the recent literature finding negative employment elasticities (of a minimum wage increase), but small even four years after the introduction ([3]).

([1]) This analysis makes use of the German Socio-Economic Panel (SOEP), which is a longitudinal survey of approximately 11000 private households in the Federal Republic of Germany from 1984 and the eastern German länder from 1990 produced by the Deutsches Institut für Wirtschaftsforschung (DIW).

([2]) The Kaitz index is the ratio of the nominal legal minimum wage to median wage.

([3]) Harasztosi and Lindner (2019).

6. Conclusion

Amid a deep economic crisis and in the face of major economic and societal shifts, the EU aims to promote social fairness. Building on a unique social model, the EU and its Member States aim to ensure a swift recovery and just transitions towards a greener and more digitalised economy. The aim is to find equitable measures for a population that is growing older and becoming more diverse. While the COVID-19 pandemic is a shock to all countries, its economic impact is asymmetric across Member States and the prospects of recovery are uneven. In this context, it is even more important to promote fairness and upward convergence, in line with the European Pillar of Social Rights.

When discussing fairness, it is important to consider alternative criteria to share burdens and benefits. Whether a given distribution is considered fair often depends on the perspective: rewarding merit, caring for the needy or promoting equality of outcomes or opportunities.

Across Member States, there is a broad consensus on what a fair society should aspire to. The overwhelming majority of Europeans agree that hard work needs to be rewarded. Most Europeans also agree that the basic needs of all - and particularly the poor - should be met. The need to ensure equal opportunities enjoys broad support. Views are more mixed on the (lack of) fairness of inequalities in wealth and income per se.

There are large differences in how fair Europeans consider their own lives, and those of others in their country, to be. In Member States with higher median incomes, the population tends to assess fairness more favourably. For individuals, their own ability to make ends meet has a large impact on their perceptions of fairness. The hardships households have reported in on-line surveys during the COVID-19 pandemic will probably make fairness issues more important in public debates.

Over the past 30 years, a growing number of people have come to consider inequalities in their country as too large. While views on fair levels of wage dispersion have remained relatively stable, perceived levels of wage inequality have increased significantly. This misalignment may trigger dissatisfaction in large segments of the population.

Relative income poverty is primarily measured by national standards. A theoretical EU-wide standard of poverty shows higher numbers of households in poverty (mainly located in Central and Eastern Member States) than national poverty standards show. Yet this EU-wide standard of poverty also shows a larger reduction in poverty between 2007 and 2017, as a result of income convergence between EU countries. People's experience of the income levels needed to avoid poverty and live a decent life may not match national poverty thresholds. In some of the more affluent Member States, more than half of the population state that they could make ends meet with an income at the poverty threshold. However, this drops to less than 10% in other countries, particularly those with lower average income levels.

The risk of poverty over several years is more widespread than annual rates suggest. The majority of people who are poor at a point in time were already poor before. Compared with the poverty rates in a given year, more people will have had at least one episode of poverty over 4 years. Countries with higher poverty rates also tend to have higher proportions of people falling into poverty, and lower proportions moving out.

Relative income mobility mainly concerns the middle of the distribution, with much more stability at the bottom and - in particular - at the top. Countries differ a lot in the extent and direction of relative wage mobility. And younger workers are most likely to experience major wage mobility from one year to the next.

Slightly more than one sixth of minimum income recipients without a job go on to work and minimum wage earners improve their wage significantly year-on-year. Experimental evidence and data on actual transitions shows that a minimum income would not have a substantial negative effect on the propensity to work. In addition, minimum wage workers are found to have higher chances of significantly improving their wage in the short term than other workers. This shows that it is possible to find policy solutions to satisfy Europeans' different conceptions of fairness.

ANNEX 2.1: DATA SOURCES ON FAIRNESS PRINCIPLES AND PERCEPTIONS

The **European Social Survey (ESS)** is an academically driven cross-national survey that has been conducted across Europe since its establishment in 2001. Every two years, face-to-face interviews are conducted with newly selected, cross-sectional samples. The 2018 dataset contains a specific module on fairness and justice.

Currently, data are available for 22 Member States. Additional data are expected for Denmark. No data have been collected in 2018 for Greece, Luxembourg, Malta or Romania.

The **European Values Study (EVS)** is a large-scale, cross-national, repeated cross-sectional survey research programme on basic human values. The European Values Study started in 1981 when a thousand citizens in the European Member States of that time were interviewed using standardised questionnaires. Every nine years, the survey is repeated in a variable number of countries.

The 2017 data collection covers Austria, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Lithuania, the Netherlands, Poland, Romania, Slovakia, Slovenia, Spain and Sweden.

ANNEX 2.2: LOGISTIC REGRESSIONS ON FAIRNESS PRINCIPLES AND PERCEPTIONS

Table 2.4
Average marginal effects in a logistic regression predicting support for different fairness principles

		Work	Poor	Priv_inv	Equal
Sex	Woman (ref)	0	0	0	0
	Man	.023	-.008	-.004	-.019
Age	15-29	.022	.002	-.037	.002
	30-44 (ref)	0	0	0	0
	45-59	.018	.034	.026	.009
	60-74	.019	.049	.034	-.004
	75+	.034	.081	.024	.016
Income	Comfortable	.005	.016	.023	-.102
	Coping (ref)	0	0	0	0
	(Very) difficult	-.014	.009	.006	.057
Activity status	At work (ref)	0	0	0	0
	Unemployed	-.020	.030	-.024	.068
	Retired	-.008	-.003	-.022	.051
	Inact	-.020	.006	-.035	.042

Note: Cells marked in green (p<1%); orange (1%>p<5%); white (p>5%). Country dummies included in model, but not reported in table.

Source: Authors' calculations based on European Social Survey 2018.

Click here to download table.

Dependent variables are binary (0-1), where 1 combines 'strongly agree' and 'agree', to certain statements on a fair society. 0 includes 'neither agree nor disagree, disagreeing or strongly disagree).

- Work: A society is fair when hard-working people earn more than others.
- Poor: A society is fair when it takes care of those who are poor and in need, regardless of what they give back to society.
- Priv-Inv: A society is fair when people from families with high social status enjoy privileges in their lives. Inverted, 1 refers to those (strongly) disagreeing.
- Equal A society is fair when income and wealth are equally distributed among all people.

Table 2.5
Average marginal effects in a logistic regression predicting perceived fairness

		Education	Job	Income	Wealth
Sex	Woman (ref)	0	0	0	0
	Man	.024	.051	.042	.008
Age	15-29	.056	.070	.021	.005
	30-44 (ref)	0	0	0	0
	45-59	-.037	-.080	-.010	-.009
	60-74	-.096	-.148	-.003	-.019
	75+	-.197	-.221	.058	.010
Income	Comfortable	.142	.136	.180	.036
	Coping (ref)	0	0	0	0
	(Very) difficult	-.156	-.170	-.253	-.029
Activity status	At work (ref)	0	0	0	0
	Unemployed	-.069	-.158	.045	.021
	Retired	-.032	-.011	.017	-.002
	Inact	-.058	-.099	.096	.003

Note: Cells marked in green (p<1%); orange (1%>p<5%); white (p>5%). Country dummies included in model, but not reported in table.

Source: Authors' calculations based on European Social Survey 2018.

Click here to download table.

Dependent variables are binary (0-1):

- Education: Compared to other people in [country of residence], I have had a fair chance of achieving the level of education I was seeking. [1= agreeing or strongly agreeing]
- Job: Compared to other people in [country of residence], I would have a fair chance of getting the job I was seeking. [1= agreeing or strongly agreeing]
- Income: Would you say your net pay/pensions/social benefits is unfairly low, fair, or unfairly high? [1=fair]
- Wealth: In your opinion, are differences in wealth in [country] unfairly small, fair, or unfairly large? [1 = fair]

ANNEX 2.3: MINIMUM INCOME BENEFICIARIES: IDENTIFICATION STRATEGY IN EU-SILC

The identification of minimum income beneficiaries is not straightforward in EU-SILC and required some assumptions. Four variables have been used. These are:

- HY060: Social exclusion not elsewhere classified – contributory and non-contributory, means-tested and non-means-tested;
- HY063: Social exclusion not elsewhere classified – non-contributory and means-tested;
- PY090: Unemployment benefits – contributory and non-contributory, means-tested and non-means-tested;
- PY093: Unemployment benefits – non-contributory and means-tested.

Among those variables HY060 and HY063 are household benefits (i.e. each individual of the household is recorded as receiving the benefit when the household collectively receives it), while PY090 and PY093 are individual benefits.

An ideal way of identifying minimum income beneficiaries in EU-SILC would be to consider those individuals receiving PY093 or living in households receiving HY063. These two sub-variables are however not available before 2017 for many countries (i.e. Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Latvia, Romania and Sweden). In addition, given the discrepancy between income variables (which reference year is t-1) and all other variables in EU-SILC, the 2017 benefits' variables refer to 2016. For this reason the sample used in the regression analysis presented in Section 3 is made by all individuals who were receiving either PY093 or HY063 and were inactive or unemployed in 2016 and aged 20-64. The dependent variable is the transition from out of work (inactive/unemployed) to at work (employee/self-employed) between 2016 and 2017.

For some countries further choices were made. The variables PY093 and HY063 are not available for Estonia and Greece, hence the broader PY090 and HY060 were used instead for these two countries. Moreover, for Malta and Denmark an upper bound to PY093 and HY063 was applied, as in those countries the system is more universal (almost all observations in EU-SILC report a low amount of HY063 for example).

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