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INTERGENERATIONAL CLASS MOBILITY IN EUROPE: A NEW ACCOUNT AND AN OLD STORY

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Abstract

Comparative research into intergenerational social mobility has been typically restricted to a relatively small number of countries. The aim of this paper is to widen the perspective, and to provide an up-to-date account of the rates of intergenerational class mobility for men, across 30 countries in Europe, using a newly-constructed comparative data-set, based on the European Social Survey. What emerges is that while absolute rates vary widely with national differences in the extent and pattern of class structural change, in the case of relative rates the striking feature is the degree of cross-national similarity. The only countries that have relative rates significantly different from those for the rest are ones with more unequal rates – i.e. lower levels of social fluidity. These countries fall into three groups: Central European mature democracies, Germany and Luxembourg; some Southern European societies, Spain and Portugal; and some of the post-socialist countries, Bulgaria, Hungary and Poland. Our results also indicate that country differences in relative mobility chances have only a very limited part to play in accounting for country differences in absolute mobility rates, implying that the latter are primarily determined by class structural changes and the country variation therein. What is then suggested is that rather than there being any systematic cross-national variation in relative rates of class mobility, these rates are at a similar level in European societies with market economies and nuclear family systems, and any significant variation appears to be resulting from nationally specific factors – in line with the so-called FJH-hypothesis.

Introduction

Intergenerational social mobility refers to the relationship between the socio-economic position an individual occupies and the position in which he or she was brought up (Breen, 2004). If the association between parents' and children's social positions is relatively weak, a society is deemed more mobile. Over the past years the topic of social mobility has preoccupied academic, policy and public discussion in many advanced nations to a degree not seen in decades. It has been argued that economic and social inequality need not be a matter for great political concern as long as intergenerational social mobility remains high. That is, as long as a high degree of equality of opportunity prevails, and children's life-chances are not unduly conditioned by their social origins in ways over which they have no control. The case for promoting social mobility is also made by international organizations from the perspective of economic efficiency (OECD, 2010; OECD, 2015).

Despite such prominence of the subject in the political and policy arena, we know surprisingly little about cross-national differences in the level and the pattern of intergenerational social mobility. While over-time trends have been extensively researched in some countries, like the UK (Blanden, 2013; Bukodi *et al.*, 2015; Goldthorpe and Mills, 2008), Sweden (Breen and Jonsson, 2007) or Germany (Mayer and Aisenbrey, 2007; Müller and Pollak, 2004), systematic cross-country comparisons are much less common. Broadly speaking, comparative research that does exist has two 'strands': one that describes how far countries differ from each other in the absolute and relative rates of social mobility (Breen, 2004; Erikson and Goldthorpe, 1992); and another that explores the determinants of country variation (or the lack thereof) in social mobility (Beller and

Hout, 2006; Corak, 2013; Esping-Andersen, 2015; Esping-Andersen and Wagner, 2012; Yaish and Andersen, 2012).

This paper belongs to the first strand, and as such focuses on the following research questions. What is the degree of cross-national variation in the rates of intergenerational social mobility in Europe? Are the country variations systematic or, rather, emerging in some idiosyncratic way? We believe that a rigorous and up-to-date account is imperative before moving to investigating the drivers behind social mobility. As it stands, the seminal works of Erikson and Goldthorpe (1992) and Breen (2004) serve as the primary base of evidence, albeit using data from the 1970s to the 1990s, and thus giving a Europe-wide picture of social mobility for an earlier historical period. In this paper, we will provide a new comparative account of intergenerational social mobility in Europe, by extending the time horizon from the 20th into the 21st century. We will use a newly constructed dataset – based on the European Social Survey – that allows us to calculate social mobility rates for 30 countries, in a truly comparative fashion.

Social mobility can be investigated in a number of different ways. In this paper, we focus on mobility in terms of social class, rather than viewing it in terms of income. In this way, we believe, the intergenerational transmission of economic advantage and disadvantage can be more fully captured (Erikson and Goldthorpe, 2010). Social class will be conceptualised and operationalized via the European Socio-Economic Classification (ESEC) that is specifically designed for international comparisons (Rose and Harrison, 2010). Furthermore, following the sociological tradition, we will make a clear distinction between absolute and relative mobility rates. Absolute mobility refers to the proportion of individuals moving from different origin positions to different destination positions,

either in an upward or a downward direction. Relative mobility, or social fluidity, refers to the equality of opportunity – i.e. the strength of the association between individuals' origin and destination positions that is independent of the difference between parents and respondents in the distributions of their social positions.

Finally, we should note that we will restrict our analyses to *men*; chiefly because for examining social mobility patterns for women, more complex and disaggregated analyses would be required than in the case of men (e.g., Bukodi *et al.*, 2017), and these we have to defer for later consideration.

The structure of the paper is as follows. First, we briefly summarise the main macro-sociological approaches to studying class mobility in a comparative perspective. Second, we introduce the conceptual foundations of social class as the basis of our treatment of social mobility. Third, we describe our data and the construction of the main variables. Fourth, we report our findings on country variations in absolute and relative mobility rates, separately, before drawing the main conclusions.

Macro-sociological approaches to class mobility

The most comprehensive early research into social mobility in a comparative perspective was conducted by Sorokin (1927 [1959]). Sorokin found that absolute mobility rates fluctuated without any sustained trend or pattern, across a number of historic and more modern societies. Lipset and Bendix (1959), in their pioneering work, also concluded that there was a basic commonality across nations in absolute mobility rates.

In contrast, another influential tradition in research into comparative social mobility – that is based on modernization theory – reached different conclusions. As the proponents of this tradition argued, in traditional societies, ascriptive characteristics of individuals, such as economic possessions, place of birth or lineage, were the primary channels of accessing more advantaged social positions. However, in modern economic systems and labour markets, as a consequence of increasing specialisation, selection processes inevitably become more universalistic and bureaucratic (Parsons, 1960), and individuals are more likely to be allocated to positions on the basis of their skills and qualifications. Social stratification then simply reflects positional differences in functional importance and the costs associated with attaining the skills and qualifications required for a position (Davis and Moore, 1945). In a similar vein, Daniel Bell argues that with increasing technological advancement, educational institutions – as the disseminators of theoretical knowledge and of associated expertise and skills – assume a dominant role in the allocation of individuals to different positions within the division of labour (Bell, 1972). The post-industrial society is 'in its logic' an education-based meritocracy: a new social order is emerging, 'based, in principle, on the priority of educated talent' (1972, p. 41). Therefore, advantaged social backgrounds can no longer, in themselves, guarantee access to high positions; these will lie beyond the reach of individuals from whatever social background who lack appropriate qualifications. This would then lead to an overall increase in social mobility, as most aptly described by Treiman (1970). According to Treiman, growing industrialisation and technological advancement coincide with the differentiation of the occupational structure, the decline of manual labour, the steady growth of the number of individuals with higher educational attainment and declining income inequality. This also means that the influence of social background on individuals'

educational attainment would steadily weaken, whereas the influence of education on occupational and class attainment would steadily strengthen. The former is mainly driven by families' increasing familiarity with the educational system and educational possibilities; the latter is a direct consequence of increasing demands for skilled workers due to technological advancement. The industrialisation theorem would expect systematic cross-country differences in mobility rates, insofar as nations differ from each other in the degree of industrialisation and technological advancement.

However, in the mid-seventies, Featherman, Jones and Hauser (1975) questioned the arguments based on modernisation theory, and, for an analytical purpose, proposed distinguishing between absolute and relative rates of social mobility. They showed that there were significant country differences in absolute rates, chiefly due to cross-national variations in the development of the class structures. In their analysis of relative mobility rates, however, they found only small differences across nations, speculating that the main reason behind the overall commonality might be the shared institutional characteristics of capitalist societies; i.e. the market economy with its general stratification order and the nuclear family. They argued that families in the higher reaches of the class hierarchy would exploit their advantaged positions in various ways in order to safeguard their children's labour market chances, regardless of the economic, technological or political context. This implied that there were no strong reasons to expect differences in social fluidity across countries. This argument became known as the 'FJH-hypothesis'.

The question that arises is whether more recent empirical research into social mobility lends support to the modernisation thesis or rather favours the FJH-hypothesis.

In the past 25 years, there were two major studies on social mobility from a comparative perspective. The first one, conducted by Robert Erikson and John Goldthorpe (1992) and based on data from the 1970s, found quite strong differences in absolute mobility rates across 12 nations – much in line with the FJH-hypothesis. This, as they argued, was chiefly attributable to the marked differences in the occupational and class structures across nations. Broadly speaking, Erikson and Goldthorpe were also able to underwrite the conclusions reached by Featherman, Jones and Hauser in regard to relative mobility rates. They found a 'basic similarity' across countries, although they did report some 'national idiosyncrasies', which then led them to reject the FJH-hypothesis in its strong form. Nevertheless, their findings clearly indicated that there was, overall, a common level of social fluidity in the nations covered by their study, and the relative mobility chances were persistent over time in a majority of countries.

The second major study on social mobility, covering 10 European countries and based on data from the early 1980s to the 1990s, was conducted by Richard Breen and his associates (2004). The main findings of this research did not support the FJH-hypothesis but did not fully corroborate the propositions of the industrialisation theorem either. Regarding absolute rates, Breen reported insignificant country differences and an overall convergence over time in the nations under study – results that lent some support to the industrialisation theorem. But Breen and associates found more pronounced and systematic differences across nations in relative mobility rates; although these differences did not necessarily show up in a way predicted by the industrialisation theorem in that the economically and technologically most advanced countries did not always turn out to be the most mobile.

More recently, Beller and Hout (2006) and Esping-Andersen and Wagner (2012) were also able to detect significant country-variations in relative mobility rates, but rather than arguing for the importance of the level of industrialisation and technological advancement in explaining these country differences, they deemed the overall generosity of the welfare state and the degree of educational inequalities much more influential.

In sum, past research has not reached a consensus view on how far European countries differ in absolute and relative mobility rates; some emphasised a common pattern with specific country variations but others argued for more significant and systematic differences across nations. In the present paper we will shed new light on the matter, using data from the first decade of the 2000s.

Why social class?

As said, in this paper we are concerned with intergenerational class mobility, i.e. mobility between different class positions. It is important to recognise that social inequality, and in turn social mobility between more or less advantaged positions, can be expressed in two different forms: *attributional* inequality and *relational* inequality. Attributional inequality arises insofar as individuals have, as an attribute, more or less of something that is valued. Prime examples are inequality in income or in wealth. Relational inequality, in contrast, arises where individuals' positions of more or less advantaged kind derive from certain social relations in which they are involved. Class inequality is a prime example of relational inequality. More specifically, we take class positions as deriving from the relations in which individuals are involved in labour markets and workplaces or,

that is, from their employment relations (cf. Erikson and Goldthorpe, 1992, p. 35-45; Goldthorpe, 2007, p. 101-124). It is in fact this way that the particular class schema that we use in this paper – the European Socio-Economic Classification (ESEC) – is conceived and constructed.

As understood in this way, class positions are differentiated in terms of two central elements. At a basic level, they are differentiated in terms of *employment status* – employers, the self-employed and employees have clearly different positions in labour markets and workplaces. Employers buy and control the labour of employees, the self-employed sell their own labour to clients, and employees sell their labour to, and accept the control of, employers. However, in the case of employees, who make up the large majority of the working population, a further level of differentiation is required. In this regard, what is crucial is the form of the *employment contracts* under which employees work. At one extreme of this differentiation stands a basic form of 'labour contract'; at the opposite extreme one can identify a more diffused 'service relationship' (Erikson and Goldthorpe, 1992, p. 41).

It is important to emphasise that in the case of employees, type of occupation can be taken as a reliable indicator of prevailing employment relations, and occupation can be used, along with employment status, as a basis for identifying class positions as defined in terms of employment relations. But it is also important to keep in mind that a class schema conceived in the way described above – e.g. ESEC – does *not* relate in any direct way to the particular nature or content of the work done in different occupations – only indirectly insofar as different kinds of work tasks and roles are associated with different forms of employment contract.

We would argue that as far as economic life is concerned, social class does in fact provide a fuller and more revealing context for the study of social mobility than does simply income. It has been shown that class is strongly associated with individuals' income, but also with other aspects of peoples' economic lives: income security and unemployment risks, short-term income stability and longer-term income prospects in terms of wage progression over the life-course (Lucchini and Schizzerotto, 2010; Watson, Whelan, and Maître, 2010). Moreover, and contrary to popular beliefs, the over-time increase in inequality of income that is evident in some European countries, such as the UK or Italy, has occurred to a greater extent *between* rather than within social classes (Albertini, 2013; Williams, 2012).

Data and variables

The analyses draw upon a newly constructed data-set, which is based on pooled data of the European Social Survey (ESS). The ESS is a biannual cross-national representative survey that employs random probability sampling of private households and collects data in face-to-face interviews. The ESS is among the highest quality comparative surveys in the world, with fully-harmonized and reliable measures on key aspects of individuals' economic and social lives. We pool the first five waves of the data that were collected between 2002 and 2010, biannually. We supplement this core data-set with another one that was specifically designed to record detailed information on survey respondents' social origins that was never coded before – the ESS-DEVO data that is a product of a project entitled '*Improving the Measurement of Social Background in the European Social*

Survey' (Ganzeboom, 2014). Merging the ESS-DEVO to the core dataset allows us to study social mobility in Europe in a truly comparative fashion.

Since our aim is to give a detailed account of the cross-national differences in absolute and relative mobility in Europe, we take a *population* view, and include in our sample all respondents in the age-bracket of 25 and 64 at the time of the data collections. This means that the oldest respondent in our sample was born in 1938 and the youngest was born in 1985. As already mentioned, we restrict our analyses to men. In total, our sample includes 71 836 male respondents, interviewed in 30 countries – the sample sizes range from 891 in Italy to 4740 in Germany.

The two main variables in our analyses are those of respondents' social class origins and social class destinations, which we determine according to the seven-class version of ESEC, as shown in *Table 1*. To construct social class origin, we use the dominance approach (Erikson, 1984). More specifically, by default, class origin is indexed by father's class, but in case of both parents having gainful employment, we choose the class category of the one working in a higher-ranked class position, as indicated by the dotted lines in Table 1. If we have information on class only for one parent, we index social origin by this. We establish parents' class position at respondents' age 14. As noted, we measure respondents' class destinations between ages 25 and 64. If respondents were not in employment at the time of interview, we allocate them to a class position on the basis of their last employment[1].

[1] The proportion of men allocated to classes based on their last employment that they held at least one year before the data collections is, on average, 18%, ranging from 9% in Sweden to 35% in Romania. Romania is an outlier with a very high proportion of men being in early-retirement but also permanently sick or disabled. As auxiliary analyses, we calculated the absolute and relative mobility rates *only* for men who were employed at the time of data collections, for each of our 30

As indicated above, we use the seven-category version of ESEC that we constructed following the algorithm described in Harrison and Rose (2010). Occupational data for respondents and their parents, in each country, are coded to a common occupational classification, that is, ISCO-88. First, we take the 3-digit ISCO-88 codes together with a binary employment status code, distinguishing employers and the self-employed from employees, and create a 'reduced' version of the seven-category ESEC. We then move to the 'full' deviation of ESEC, by adjusting the reduced version by taking into account some further information: the number of employees recorded in the case of the self-employed and managers, and a binary variable indicating whether or not the respondent (or the parent) is responsible for supervising other employees.

--- Table 1 ---

In *Appendix A* we show the class origin and destination distributions for men, in all the 30 countries, based on the seven-category version of ESEC.[2] *Appendix B* shows the proportion of cases lost due to missing values on either the respondent's or the parent's class, for each country. Regarding class destinations, on average, we do not have valid information for only 2% of the cases; so far as class origins are concerned, the extent of

countries. These analyses essentially showed the same pattern of country variations in mobility rates that we report in the paper (results are available upon request).

[2] Davies and Elias (2010) compared the respondents' class distributions measured by ESEC across three European comparative surveys – the European Social Survey (ESS), the Labour Force Survey (LFS) and the European Community Household Panel (ECHP) – and concluded that the distributions could be taken as broadly similar for each country in their study. As an additional robustness check, we also compared the distributions of our ESEC variables with class distributions derived from national data sources, for roughly the same populations and for as many countries as possible. Overall, we found the degree of similarities in the distribution of our ESEC variables and that of the variables in national sources satisfactory (results are available upon request).

missingness is somewhat larger, around 5%, with a greater variation across countries. Overall, due to missing information on our key variables, we lose some 12% of our sample.

Results

Rates of absolute mobility

For each country separately, we construct 7 x 7 class mobility tables based on ESEC. We treat absolute mobility in terms of total mobility rates: i.e. the percentage of individuals found in cells of the mobility table off the main diagonal and thus in a different class to that of their parents. We also distinguish between the upward and downward components of total mobility rates. Total mobility rates can best be interpreted as showing the extent of the experience of mobility, as opposed to immobility, and likewise of upward as opposed to downward mobility, among the totality of men.

Our findings demonstrate that a large proportion of men, between 65% and 80%, can be found in a class that is different from the one they grew up in (see *Figure 1*). But there is no clear pattern of country differences in total mobility rates – either in terms of degree of modernisation and technological development or in terms of level of economic inequality or type of the welfare state. Among countries with the highest rates, we find France, the UK, the Netherlands and some of the Nordic countries, but also countries like Cyprus or Estonia. At the opposite end, we see Greece and some post-socialist countries, such as Hungary and Bulgaria. The level of the total mobility rate is of course influenced by the type of class schema used and the number of classes distinguished, but for countries where the 7-class version of the ESEC (or the essentially same NS-SEC for the

UK) have been used, total mobility rates for men have generally also been reported in the range of 75-80% (Betthaeuser, 2017; Bukodi *et al.*, 2015).

--- Figure 1 ---

Turning now to the upward and downward components of total mobility, it has, first of all, to be noted that these are calculated on the basis of the hierarchical divisions that we make within ESEC, as indicated by the dotted lines in Table 1; i.e. any intergenerational movement from a lower to a higher division is counted as upward mobility, and any movement from a higher to a lower division as downward mobility. It can be seen that, following standard practice, Classes 3, 4 and 5, while involving clearly different employment relations, are not treated as ones that can be unequivocally ordered as more or less advantaged. Mobility between them is therefore regarded as 'horizontal' and does not contribute to either the upward or downward rate.

As *Figure 2* indicates, when we plot the rates of upward mobility against the rates of downward mobility, our countries, by and large, fall into three groups. There are 11 countries, denoted by blank circles, where the proportion of men experiencing upward mobility is clearly higher than that of those experiencing downward mobility. The most prominent examples are the Netherlands and Luxembourg, where nearly half of the male population moved up, as compared to their parents, and only around a quarter moved down. The other countries in this group tend to be mature Central-European democracies, such as Germany, Switzerland or Austria, and most of the Southern-European nations. At the opposite extreme, we see post-socialist countries like Latvia, Estonia, Russia, Poland or Hungary, denoted by grey circles, where less than 30% of men

experienced upward mobility but, in some cases at least, more than 40% of them moved down, in comparison with their parents. Finally, almost half of the countries take a middle position, denoted by black circles; i.e. roughly the same proportion of men experienced upward and downward mobility. The remaining post-socialist countries, the Nordic societies, and France along with the UK belong to this group.

--- Figure 2 ---

The obvious question that now arises is how we could account for these country differences in upward and downward mobility rates. In order to shed some light on this issue, we have to turn to the differences in the class distributions between respondents and parents, and to examine how far these differences vary across countries. As a first step, we calculate the difference in the size of the salariat between respondents and parents – i.e. we subtract the proportion of parents in Classes 1 and 2 from the proportion of respondents in these classes. A positive figure would indicate that the size of the salariat is greater among respondents than among parents, a negative figure would imply the opposite. In a similar fashion, we also calculate the difference in the size of the wage-earning working class (Classes 6 and 7) between parents and respondents. *Figure 3.1* plots these two statistics against each other. In a second step, we use a more comprehensive measure to capture intergenerational differences in the class structure, the indices of net differences (Lieberson, 1976) that show the probability that a randomly

selected respondent will be found in a higher class position than a randomly selected parent (*Figure 3.2*)[3].

--- Figure 3 ---

The figures clearly show that the country differences in upward and downward mobility rates presented above are largely driven by country variation in the differences in the class distributions between parents and respondents. Based on past research, we can argue that in countries characterised by a pattern of 'high upward and low downward mobility' (blank circles) there has been a marked and continuous expansion of the advantaged classes, especially of the salariat, in the past decades, and this growth has been more rapid than that occurred among parents (see Betthaeuser, 2017, for Germany). At the same time, there has not been substantial contraction of the wage-earning working class, as represented by ESEC Classes 6 and 7 – this means that there has been no decline in the proportion of respondents coming from these classes. These two trends, together with a shrinkage of the intermediate classes, then in themselves tend to increase the probability that more respondents experience upward mobility from less advantaged classes, simply because more have chance of so doing.

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[3] We base our calculations on the rank-ordered version of ESEC, as indicated by the dotted lines in Table 1. The index provides a measure of the extent to which two groups – in our case, parents and respondents – are hierarchically differentiated. The index is calculated in the following way:

$$ND = \sum_{i=2}^{n} S_i\left(\sum_{j=1}^{n=j-1} P\right) - \sum_{i=2}^{n} P\left(\sum_{j=1}^{n=j-1} S_j\right).$$

Where *S* and *P* represent the class distributions of sons and parents, respectively, and *i* and *j* are the counters that indicate the relative frequencies of the ordered class categories. When *ND = 0*, parents and sons are equally distributed in the class hierarchy; when ND = 1 (or 100%), all respondents are ranked higher than all parents; when ND = -1 (or -100%), all parents are ranked higher than all respondents.

In contrast, at the opposite end, in countries with 'low upward and high downward mobility' rates (grey circles) – i.e. most of the post-socialist societies – the salariat contracted between the parents' and the respondents' generations, while the working class expanded. This trend is a direct consequence of the major transformation that occurred after the collapse of the Soviet Bloc and that triggered some seismic changes in the labour markets of these countries (Bukodi and Robert, 2007). During the transition period, many jobs in advantaged classes simply disappeared, leading to a shrinkage of the salariat, while there was a growth in unskilled jobs in production and services (Gerber and Hout, 2004). These structural changes are probably the main driving force behind the fact that the proportion of the downwardly mobile outstrips the proportion of the upwardly mobile in these countries.

Finally, in countries with 'medium-level of upward and medium-level of downward mobility' (black circles) there has been a substantial earlier expansion of the professional and managerial salariat, which, however, slowed down towards the end of the last century (for the UK, see Bukodi *et al.*, 2015). As a consequence, there has been a more rapid growth in the proportion of men originating in these classes than which was apparent in salariat destinations, and this then has led to more individuals experienced downward mobility from the salariat, or from advantaged origins in general – simply because more are 'at risk' of so doing. In other words, in these countries, structural changes have created such conditions under which the experience of downward mobility will probably become more common in later cohorts, unless changes in relative mobility chances in some way counteract this. In the following section we take up the question of

how far changes in relative mobility rates are in fact involved in the patterns in absolute rates that we have described.

The main conclusions that we would then draw so far as absolute mobility rates are concerned are the following. We find substantial and systematic differences across countries. In most of the Southern European countries and Central-European mature democracies, upward mobility rates still outstrip downward mobility rates; in sharp contrast, in some post-socialist societies, we see an unprecedentedly high proportion of men who experienced downward mobility; and, in-between, we find countries like the UK and France, along with the Nordic societies, where there is an overall balance of upward and downward mobility rates. Our results also indicate that country differences in absolute mobility rates are largely driven by country variation in the differences in the class distributions between parents and respondents.

Rates of relative mobility

Country differences in the level of relative mobility

We now move on to consider rates of intergenerational class mobility in relative terms: i.e. we focus on the relative chances of men of different class origins arriving at different class destinations, considered *net of* all class structural differences between parents and respondents. We take odds ratios as the basis of measuring relative mobility rates. An odds ratio tells us what the chance is of someone originating in Class A being found in Class A rather than in Class B relative to the chance of someone originating in Class B being found in Class A rather than in Class B. Using the seven-category ESEC, there are (7 x 6)/2 pairs of classes of origin to be taken together with (7 x 6)/2 pairs of classes of

destination or, in all, 21^2 = 441 odds ratios involved. We cannot therefore inspect every single odds ratio separately, but have to turn to methods of concise reproduction of the data. We use two approaches: first, we calculate 'global' log-odds ratios for each mobility table and then compare them; second, we apply a series of log-linear models that is in standard use in mobility studies.

In calculating the *global log-odds ratios* we work with the ordered, five-category version of ESEC as indicated by the dotted lines in Table 1. For each of the 5 X 5 mobility tables (i.e. for 30 tables, in total), we calculate a set of global odds ratios, in logarithmic form, that can be obtained by successive partitioning of the 5 X 5 tables into 2 X 2 sub-tables. In total, a 5 X 5 table can be split into 16 2 X 2 sub-tables by dichotomising the row and column variables at each consecutive dividing line between their categories. The first log-odds ratio results from separating the first row and the first column of the 5 X 5 mobility table, from the other categories. Similarly, the second log-odds ratio stems from separating the first row and the first two columns from the rest of the table, and so on. More formally, each pair of the dichotomized rows and columns defines a four-cell table where cells are represented as *a*, *b*, *c* and *d*. Let then f_{ij} be the number of cases in the *ij*th cell. Then

$$a_{ij} = \sum_{i=1}^{4}\sum_{j=1}^{4} f_{ij}\,;\, b_{ij} = \sum_{i=1}^{4}\sum_{j=2}^{5} f_{ij}\,;\, c_{ij} = \sum_{i=2}^{5}\sum_{j=1}^{4} f_{ij}\,;\, d_{ij} = \sum_{i=2}^{5}\sum_{j=2}^{5} f_{ij}.$$

We can then calculate each of the global log-odds ratios; i.e.

$$\log \theta_{il,jm} = \log \frac{a_{ij}\, d_{lm}}{b_{im} c_{lj}},$$

where $i = 1...4$, $l = 2...5$, $j = 1...4$ and $m = 2...5$. As a final step, we average over the 16 global log-odds ratios for each mobility table.

Figure 4 shows the average global log-odds ratios for each country. Higher values indicate stronger association between parents' and respondents' class positions – i.e. lower level of relative mobility rates or less fluidity. The most important point that the figure conveys is that *no* systematic pattern appears to emerge in relative mobility chances in the sense that countries usually classified as distinctive welfare regimes would belong to distinctive mobility regimes or would be ranked by level of modernisation or level of economic inequality. For example, among the least fluid countries, we find post-socialist societies, such as Hungary and Poland, Southern-European countries, such as Portugal and Spain, and Central-European mature democracies, such as Germany and Luxembourg. At the opposite end, the group of the most fluid nations, is also diverse, including some of the Baltic countries, such as Latvia and Estonia, some of the Nordic countries, such as Finland and Norway and also France and the UK.

--- Figure 4 ---

The question that now arises is whether the differences across countries that show up in Figure 4 are large enough to be taken as statistically significant. In order to investigate this issue, we compare the average global log-odds ratios in a pairwise fashion – i.e. for each pair of countries – and then conduct a significance test for the difference, using the method proposed by Cox *et al.* (2009). More precisely, we base our calculation of the standard error of the difference in global log-odds ratios on the central section of the 5 X 5 mobility tables, i.e. on the central four global log-odds ratios. The

main reason for this is that we should divide the mobility tables in a way that would lead to a fairly even distribution of the sample across cells. *Figure 5* shows the results in a graphic form, and *Appendix C* gives the numerical details.

Countries in Figure 5 are ranked by the size of the average global log-odds ratios. Blank circles indicate no significant difference between countries in global log-odds ratios, i.e. in relative mobility rates; black circles indicate that global log-odds ratios are significantly larger in Country B than in Country A; patterned circles indicate the opposite. There are two points of importance to note. First, in a large majority of cases, there are *no* significant differences in the global log-odds ratios between countries. Second, where countries do differ from each other in terms of social fluidity, they do so in a sense that those with more *unequal* rates – i.e. with lower levels of social fluidity – form a distinctive group. But one cannot claim that the countries that are less mobile than the rest – Hungary, Bulgaria, Poland, Portugal, Spain, Luxembourg and Germany – would belong to a certain type of welfare regime or would constitute a homogeneous country-cluster in any apparent way.

--- Figure 5 ---

We now turn to an alternative method of analysing differences in relative mobility rates across countries. For this, we revert to the full, seven-category, version of ESEC (as shown in Table 1) and apply a series of log-linear models to the data comprised by the 7 X 7 mobility tables. More specifically, we fit to these tables the following two standard models (for further discussion of which, see Breen, 2004) which treat the association between class origins and destinations in terms of log-odds ratios.

The first model assumes that the association between class origins and destinations is the same across countries, generally known as the *common social fluidity (CmSF)* model:

$$\log F_{ijk} = \mu + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ik}^{OC} + \lambda_{jk}^{DC} + \lambda_{ij}^{OD} .$$

In this model, F_{ijk} is the expected frequency in cell *ijk* of a three-way table comprising origin *i* (O), destination *j* (D) and country *k* (C); and, on the right-hand side of the equation, μ is a scale factor, λ_i^O , λ_j^D , λ_k^C represent the main effects of the distributions of individuals over origins, destinations and countries and the λ_{ik}^{OC} and λ_{jk}^{DC} terms refer to the associations between origin and country and destination and country, respectively. The model recognises that an association exists between origin and destination, net of marginal effects – this is why a two-way association λ_{ij}^{OD} is added to the model. But the model requires that the log-odds ratios defining this association do not differ between countries.

The second model is a log-multiplicative model, known as the *UNIDIFF* model (Erikson and Goldthorpe, 1992):

$$\log F_{ijk} = \mu + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ik}^{OC} + \lambda_{jk}^{DC} + \beta_k X_{ij}^{OD} .$$

Here X_{ij}^{OD} represents the general pattern of the origin-destination association across countries and β_k the relative strength of this association that is specific to a particular country. This model thus allows us to test for the possibility that the log-odds ratios defining the origin-destination association stronger or weaker in one country than in another by some common, multiplicative factor. Or, in other words, the model allows for

the possibility that relative rates of mobility are *uniformly* more or less unequal in Country B than in Country A.

Figure 6 summarises the results in a graphic form. Again, as above, we compare relative mobility rates for each pair of countries in our sample. The explanation for the notation of the figure is the following. In case of black symbols, the UNIDIFF model provides an acceptable fit to the data (i.e. $p>0.05$) and significantly improves on the CmSF model. Further, the β parameter estimated under UNIDIFF, with Country A being set at 1, shows a stronger origin-destination association in Country B – i.e. the β parameter is greater than 1. In other words, the indication here is that relative mobility rates are *uniformly more unequal* in Country B than in Country A – or that social fluidity is lower. In case of patterned symbols, the UNIDIFF model still gives an acceptable fit to the data and yields an improvement on the CmSF model, but the β parameter for Country B is less than 1, implying that relative mobility rates are *uniformly more equal* in Country B than in Country A – or that social fluidity is higher. In case of blank symbols, the UNIDIFF model either does not improve on the CmSF, or it does not provide satisfactory fit to the data, indicating that there are no uniform differences between Country A and Country B in relative mobility rates.

Overall, the results are in line with those reported in the previous section. In roughly 70% of the cases no uniform difference shows up between countries in the strength of their origin-destination associations – i.e. the relative mobility rates in these cases can be taken as very similar or at least not uniformly different. The countries that *most* systematically differ from the rest are those with more unequal mobility rates, or lower level of social fluidity: Hungary, Bulgaria, Poland, Portugal, Spain, Luxembourg and

Germany. But we also see a couple of countries with distinctively high relative mobility rates – the most prominent example is Estonia. We should note that although the two approaches that we take, comparing global log-odds ratios and using log-linear and log-multiplicative models, lead to largely similar conclusions, it is also apparent that the latter produces somewhat more differentiated results. This can be explained, at least partly, by the fact that the log-linear approach is based on the full, 7 X 7 mobility tables; while in comparing global log-odds ratios, we have to resort to the ordered, 5 X 5 tables, which inevitably mask transitions between Classes 3, 4 and 5. Furthermore, in the global log-odds ratios approach, we base our significant test on a certain sub-set of odds ratios (see Cox *at al.*, 2009), while the log-linear approach fits models on all the 441 odds ratios of a mobility table. But the log-multiplicative model that we use also has its own disadvantage: it is able to pick up only uniform differences across countries – i.e. uniformly greater or uniformly smaller relative rates.

--- Figure 6 ---

As a next step, we bring the results from the two approaches together, and put our countries onto the 'map' of relative mobility rates (*Figure 7*). More specifically, on the x-axis of the figure, for all countries, we plot the standardised UNIDIFF parameters produced by our log-multiplicative models – i.e. zero indicates average fluidity across our sample[4]. Against this, on the y-axis, we plot the country differences in average global log-

[4] *Appendix D* shows all the UNIDIFF parameters, for each country-pair.

odds ratios in a standardised form[5]. Our nations then fall into two broad clusters, based on their positions on the two axes, indicated by black and blank circles. Bulgaria, Poland, Hungary, Germany, Luxembourg, Portugal, Spain and Cyprus have positive scores on both measures – i.e. these are the least fluid societies, regardless of how relative rates are measured (black circles). Portugal, Bulgaria and Hungary stand out as particularly unequal nations in terms of mobility chances.

--- Figure 7 ---

In sum, we established the following. In a large majority of cases there are no significant differences in the level of relative mobility rates between countries. When country-differences show up, they do so in a way that countries with more unequal rates tend to differ from the rest. But we cannot claim that these less fluid societies would belong to a particular type of welfare regime or would form a homogeneous group in terms of level of income inequality or economic development or level of technological advancement. An obvious question that one can now raise is what might be the reasons that countries that are rather different in many respects have fairly similar levels of relative mobility rates. One can argue that this could be explained by barriers that limit certain kinds of mobility – e.g. long-range upward or downwards moves – or by the existence of distinctive opportunities that individuals have for remaining in the class they are originated from. In other words, it can be that where the inequalities of conditions are the most marked, in terms of access to economic, social and cultural resources, that

[5] More precisely, we take the difference in the average of the central four global log-odds ratios for each pair of countries and divide this by the standard error of the difference – see *Appendix C*.

the relative mobility chances are the most unequal. This is obviously an important question that warrants further investigation.

Revisiting absolute mobility rates

Finally, we investigate the extent to which the relative mobility rates play a role in determining the absolute mobility rates that we calculated. In other words, we investigate how far country differences in absolute mobility rates reflect country differences in relative mobility chances as distinct from structural differences in the class distributions. To do so, for all mobility tables in our data-set, we replace actually observed cell values with those that would be expected under a model that assumes the *same* relative mobility rates, i.e. common social fluidity (CmSF), across the 30 countries covered by our study – in other words, we eliminate the country differences in relative mobility rates. We then re-calculate the upward and downward absolute mobility rates for each country, based on the expected cell values. *Figure 8* shows the results. In the left-hand panel, we plot the observed and expected rates of upward mobility against each other; in the right-hand panel we repeat this exercise, but with the observed and expected rates of downward mobility. If the two types of rates were identical, the country would appear on the main diagonal of the graphs. If the expected rate of upward (downward) mobility under the common social fluidity model was higher than the observed rate of upward (downward) mobility, the country would appear above the main diagonal; if the expected rate was lower than the observed one, the country would appear below the main diagonal.

There are two points to make. First, it is apparent that countries cluster very closely around the main diagonals, indicating that absolute mobility rates based on the expected values under the common social fluidity model are scarcely distinguishable from those based on the actual observed values; if anything, only slight, 2-3 percentage-points, differences show up. This suggests that country differences in relative rates, i.e. in the degree of inequality in mobility chances, have only a very limited contribution to country differences in absolute rates. Hence, the country variation in absolute rates is largely accounted for by country differences in the origin and destination distributions that reflects class structural changes between the parents' and the children's generations – very much in line with evidence from past research (Breen, 2004). Second, if there were no country differences at all in relative mobility chances in Europe, in certain countries, in fact in most of the least fluid societies, we would see some slight increase in the proportion of the *downwardly* mobile – indicating that the level of fluidity and absolute downward mobility rates are fairly strongly correlated.

--- Figure 8 ---

Conclusions

The aim of this paper has been to provide an up-to-date account of the rates of intergenerational class mobility for men, across 30 countries in Europe, using a newly-constructed comparative data-set, based on the European Social Survey. These data allowed us to investigate the degree in which European countries differ from one another in absolute and relative mobility rates, and to identify some newly emergent and hitherto unreported tendencies and patterns.

In the case of absolute mobility, we report *greater* country variation than did any study in the past. As we calculate, the upward mobility rates range from 25% to 50% in Europe, indicating that in some countries half of the active male population can be found in more advantaged class positions than their parents, while in other countries only a quarter. The country differences in downward mobility rates are essentially on the same order of magnitude. Erikson and Goldthorpe (1992) – based on data from the 1970s – also claimed to find fairly significant differences across Europe in absolute rates, but these differences were certainly smaller than what we report: they calculated upward mobility rates as between 30% and 40%, and downward mobility rates as between 8% and 18%. Breen (2004) – based on data from the 1980s and the 1990s – found even less country variation in absolute mobility rates. But both Erikson and Goldthorpe (1992) and Breen (2004) highlight that in every single country in their studies, the rate of upward mobility exceeds the rate of downward mobility. This is not, however, what we find. Our data point to a new pattern: in a large number of countries, such as the Nordic societies and the UK or France, the balance of upward and downward mobility appears to have moved in an unfavourable direction; i.e. roughly the same proportion of men experience downward and upward mobility. Moreover, in some of the post-socialist countries the proportion of the downwardly mobile even outstrips the proportion of the upwardly mobile. This emerging situation in case of absolute mobility rates has no historical precedent. One could then argue that in a non-negligible number of European countries there is a 'mobility problem', insofar as the extent to which the experience of upward mobility is becoming less common, and that of downward mobility more common, at least among men. We also argue that this new pattern might be a direct consequence of a substantial earlier expansion of the salariat, which, however, slackened off towards the

end of the last century. In many countries, there was a more rapid growth in the proportion of individuals originating in the advantaged classes than which was apparent in these classes as destinations, and this led to more individuals experienced downward mobility from advantaged origins – simply because they were more are at the risk of so doing.

While absolute rates vary widely with national differences in the extent and pattern of class structural change, in the case of relative mobility rates, the striking feature is the degree of *cross-national similarity*. The only countries that have relative mobility rates significantly and systematically different from the rest are the ones with more *un*equal rates – i.e. *lower* levels of social fluidity. These countries fall into three groups: Central European mature democracies, Germany and Luxembourg; Southern European societies, Portugal and Spain, and to a lesser extent Cyprus; and some of the post-socialist countries, Bulgaria, Hungary and Poland. It is apparent that these societies do not belong to one particular welfare regime or do not form a homogeneous group in terms of economic development, technological advancement and level of income inequality, nor in terms of historical legacy. What is then suggested is that rather than there being any systematic cross-national variation in relative rates of class mobility, these rates tend to be rather similar across Europe, and any significant variation appears to be resulting from nationally specific factors. We also find that country differences in relative mobility chances have only a very limited part to play in accounting for country differences in absolute mobility rates – implying that the patterns of absolute mobility that we observe are primarily determined by class structural changes and the differences therein across countries.

To what extent do our results on relative rates differ from those reported in past research? What Erikson and Goldthorpe (1992) claim as their main finding is the broad similarity across industrialised societies in relative mobility chances, with some national idiosyncrasies. They highlight that among the nations covered by their study, Sweden, Norway and the then-socialist societies appear to be the most fluid, while Italy, West Germany, France, the Netherlands and Ireland are the least fluid, and England can be found in-between. Erikson and Goldthorpe then reject the strong form of the FJH-hypothesis that claims that relative mobility chances are essentially the same in industrialised societies. Our findings point to the same conclusion. However, we do differ from Erikson and Goldthorpe in the nature of the national idiosyncrasies that emerge. The post-socialist countries of Central Europe, more specifically, Hungary and Poland, have clearly changed positions since the 1970s, and – as a consequence of the transformational crisis of the early 1990s and then the rapid marketization – have become Europe's most unequal societies in terms of relative mobility chances (cf. Jackson and Evans, 2017). We too register Germany among the least fluid nations, but find that Italy, the Netherlands, Ireland, and France and the UK in particular, have improved their positions and became somewhat more fluid then they were in the 1970s. A larger majority of past research referred to the Nordic countries as the most open societies in Europe in terms of relative mobility rates (e.g. Breen, 2004; Beller and Hout, 2006; Esping-Andersen, 2015). We are able to underwrite this conclusion only to a limited extent, as we find that the differences between the Nordic countries and some 'core' Western European nations, e.g. the UK, in relative mobility rates are in fact not significant – again, echoing the conclusion of Erikson and Goldthorpe.

In summary, our results – based on data from the first decade of the 2000s – are broadly in line with the FJH-hypothesis and the findings of Erikson and Goldthorpe. As they do, we too find significant differences across Europe in absolute mobility rates, which are mainly due to cross-country variations in the class distributions over time. In addition, and again echoing their results, we do not find significant and systematic differences across nations in relative mobility rates, except in some countries that stand out with more unequal rates or, in other words, with lower fluidity. It is for future research to shed more light on the underlying forces behind this long-term persistence in the levels of relative social class mobility in Europe.

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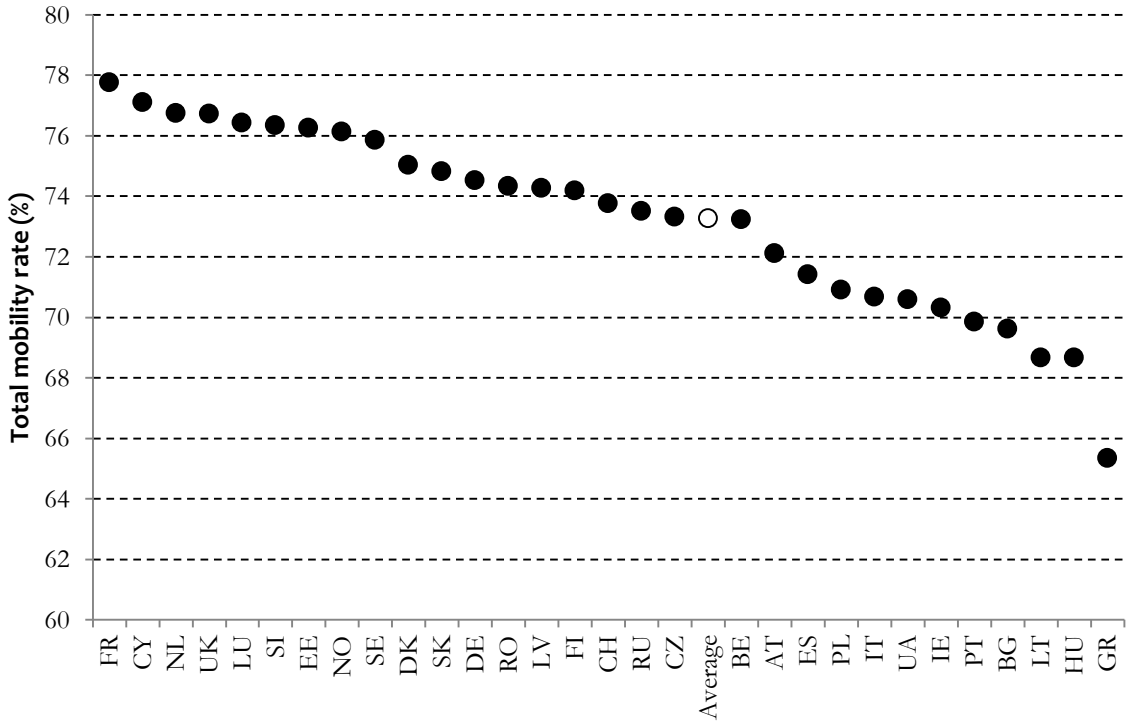
TABLE 1: Description of class origin and destination, measured by the European Socio-Economic Classification (ESEC)

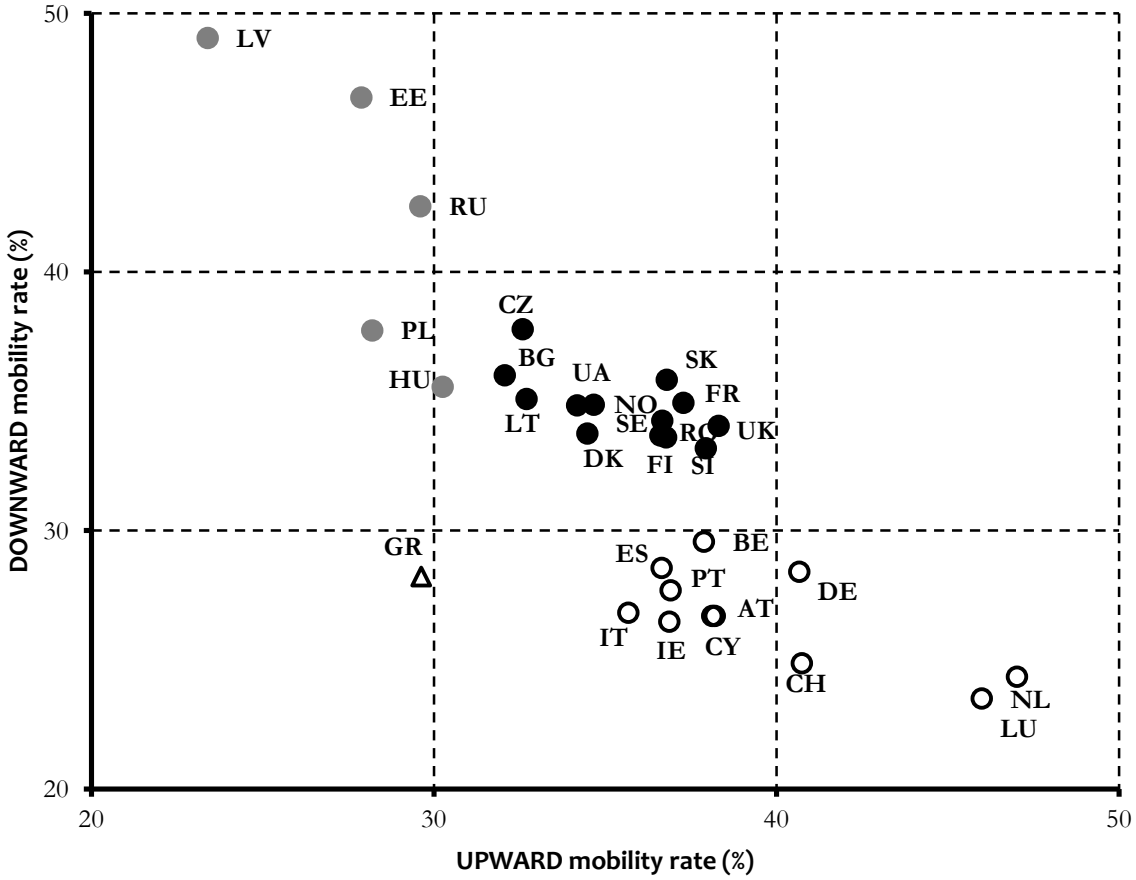
Class	Description
Class 1	Large employers, Higher managers and professionals
Class 2	Lower managers and professionals, high-level supervisors
Class 3	Intermediate occupations
Class 4	Small employers and own account workers
Class 5	Lower supervisors and technicians
Class 6	Lower service, sales and technical occupations
Class 7	Routine occupations

FIGURE 1: Total mobility rates, men aged 25-64 (%)



Note: FR: France; CY: Cyprus; NL: the Netherlands; LU: Luxembourg; SI: Slovenia; EE: Estonia; NO: Norway; SE: Sweden; DK: Denmark; RO: Romania; LV: Latvia; FI: Finland; CH: Switzerland; RU: Russia; CZ: Czech Republic; BE: Belgium; AT: Austria; ES: Spain; PL: Poland; IT: Italy; UA: Ukraine; IE: Ireland; PT: Portugal; BG: Bulgaria; LT: Lithuania; HU: Hungary; GR: Greece

FIGURE 2: Upward and downward mobility rates by countries, men aged 25-64 (%)



High upward / low downward

Medium-level upward / medium-level downward

Low upward / high downward

Low upward / low downward

FIGURE 3.1: Difference between respondents and parents in the size of the salariat and the size of the working class, men aged 25-64 (%)

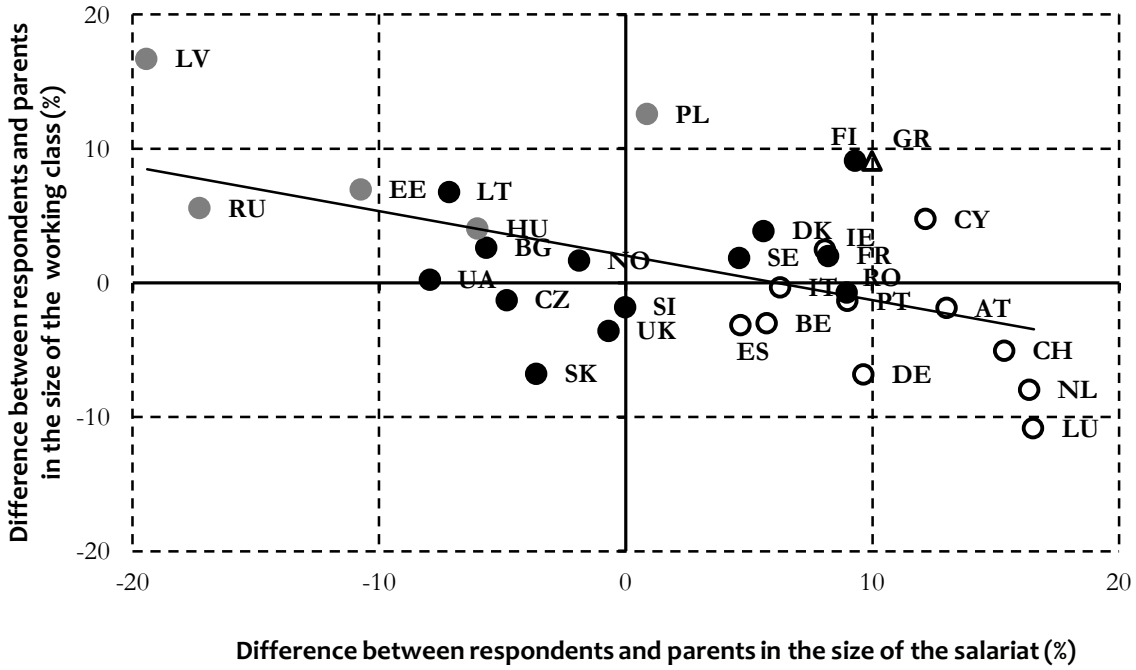
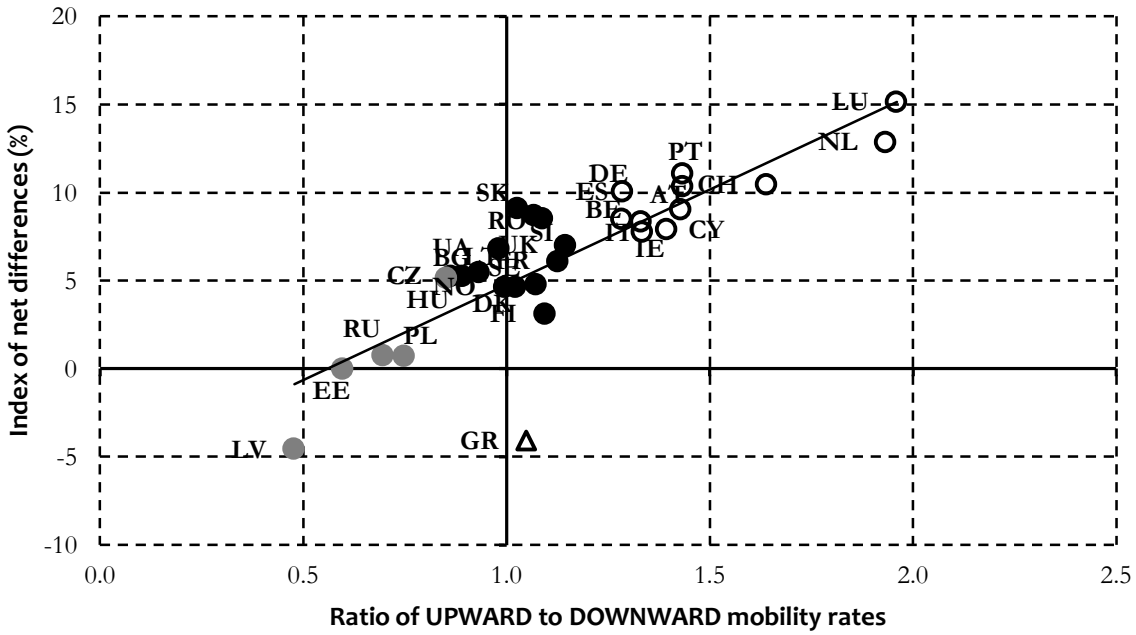


FIGURE 3.2: Ratio of upward to downward mobility rates and index of net differences in class distributions between respondents and parents (%), men aged 25-64



Note: The index of net differences (see Lieberson, 1976) shows the probability that a randomly selected son will be found in a higher class position than a randomly selected parent.

FIGURE 4: Average global log-odds ratios by countries, men aged 25-64

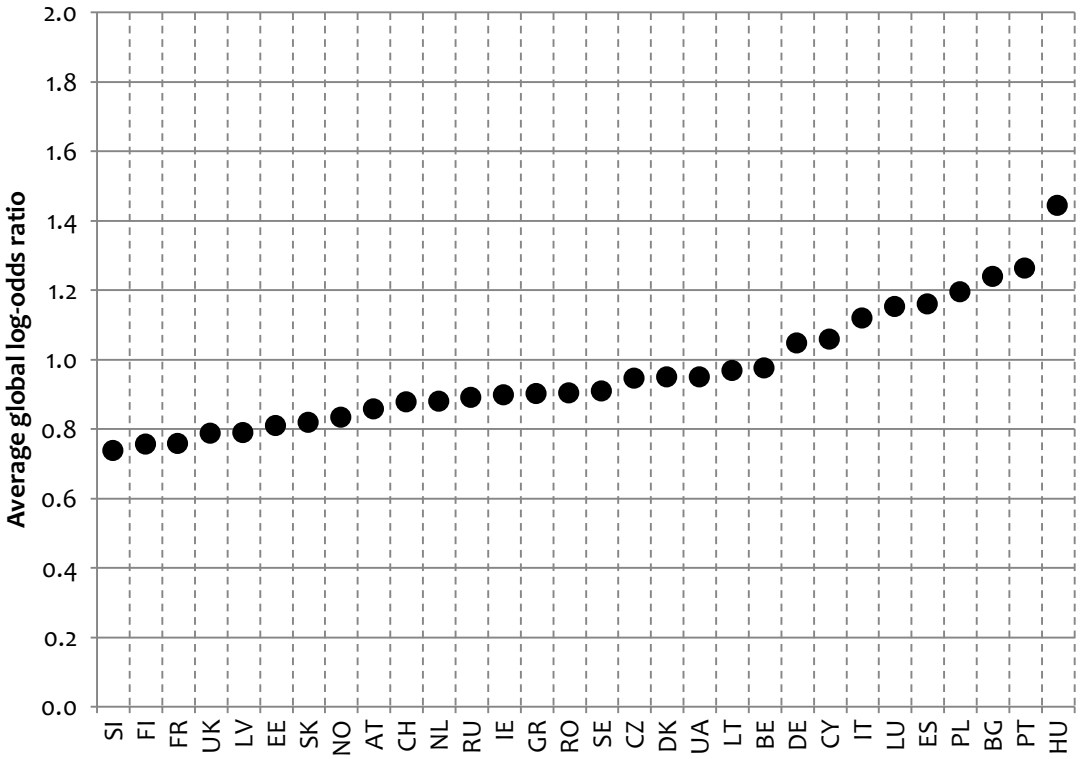
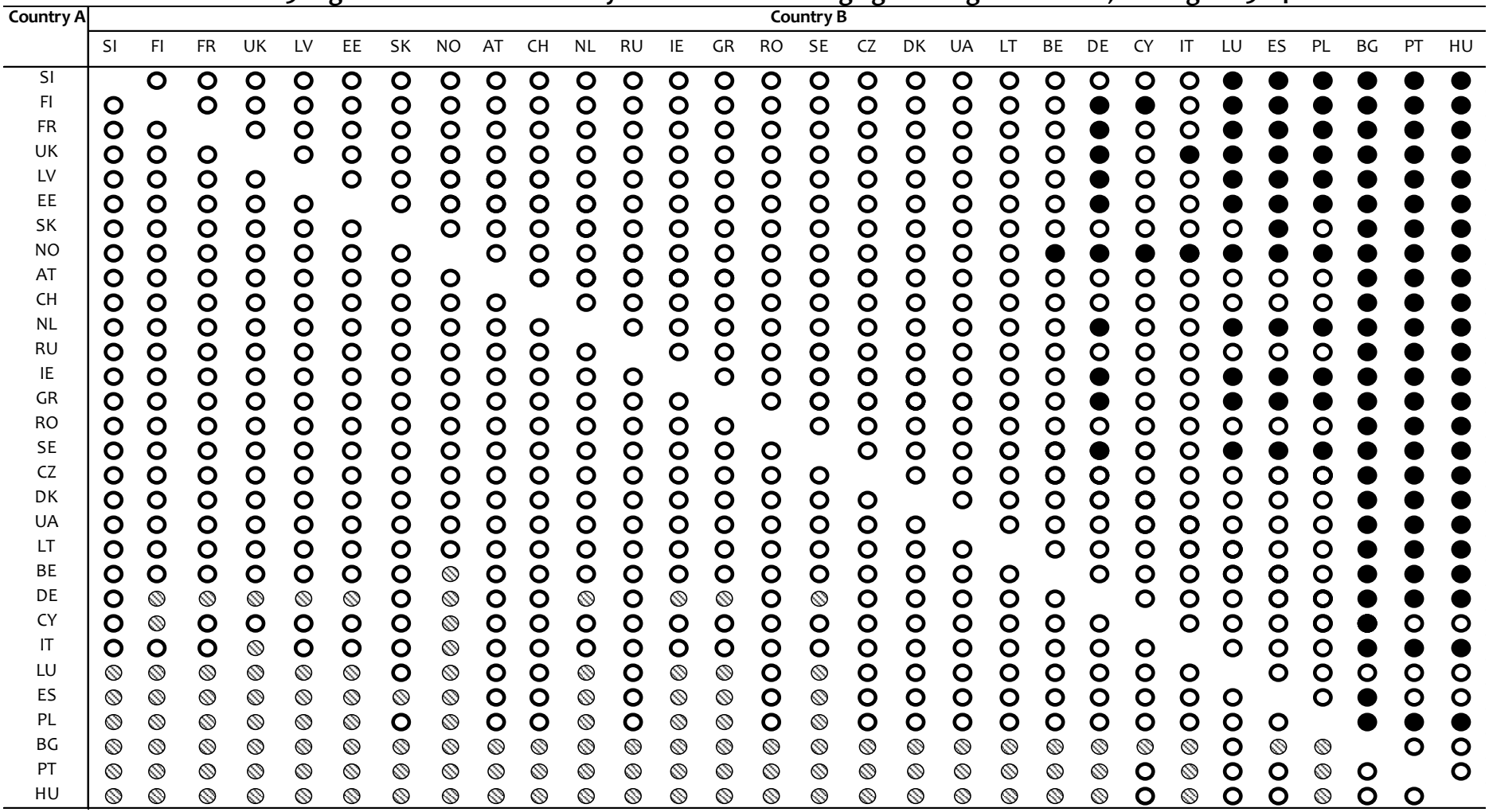


FIGURE 5: Significance test for country differences in average global log-odds ratios, men aged 25-64

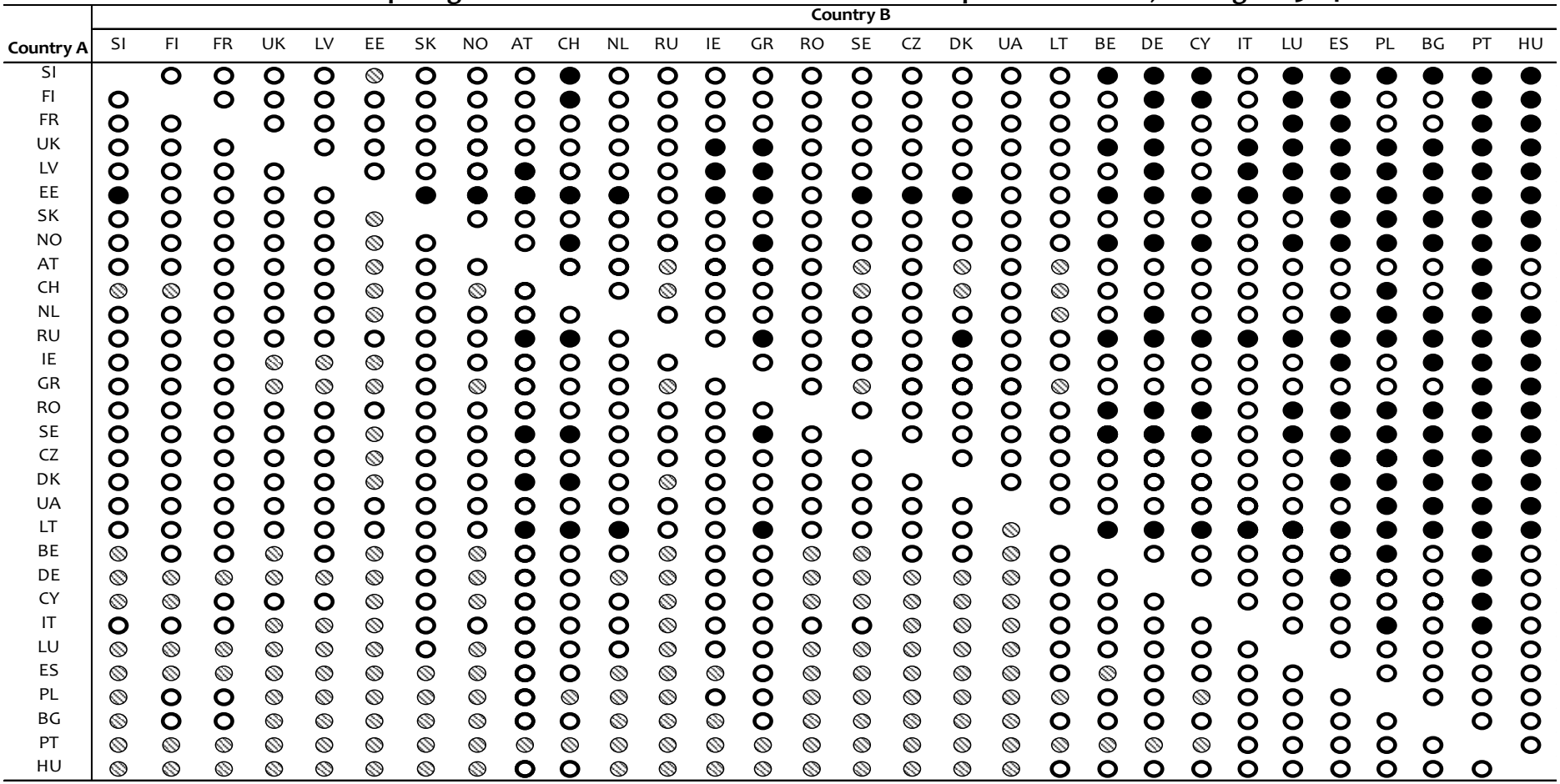


Note:

Black symbols: Average global log-odds ratio in Country B is **significantly larger** than that in Country A.

Patterned symbols: Average global log-odds ratio in Country B is **significantly smaller** than that in Country A.

FIGURE 6: Comparing the CmSF and the UNIDIFF models for each pair of countries, men aged 25-64



Notes:

Black symbols: a) the UNIDIFF model provides satisfactory fit (p>0.05) to the data; b) the UNIDIFF model **significantly** improves on the common social fluidity (CmSF) model that assumes no difference between Country A and Country B in relative rates; c) the UNIDIFF parameter indicates **stronger** association between class of origin and class of destination in Country B than in Country A.

Patterned symbols: a) the UNIDIFF model provides satisfactory fit (p>0.05) to the data; b) the UNIDIFF model **significantly** improves on the common social fluidity (CmSF) model; c) the UNIDIFF parameter indicates **weaker** association between class of origin and class of destination in Country B than in Country A.

FIGURE 7: Relative mobility rates by countries, based on country differences in average global log-odds ratios and UNIDIFF parameters, men aged 25-64

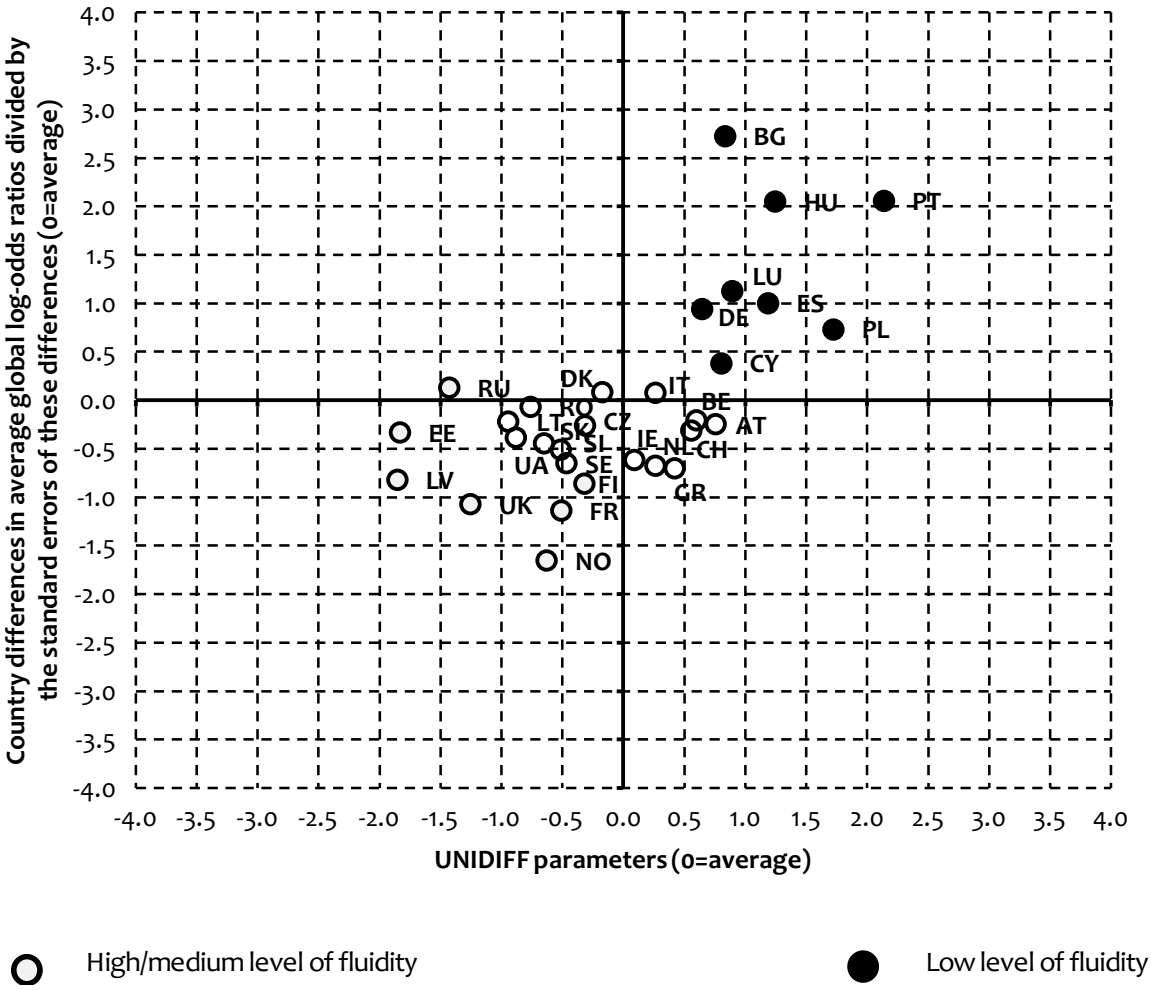
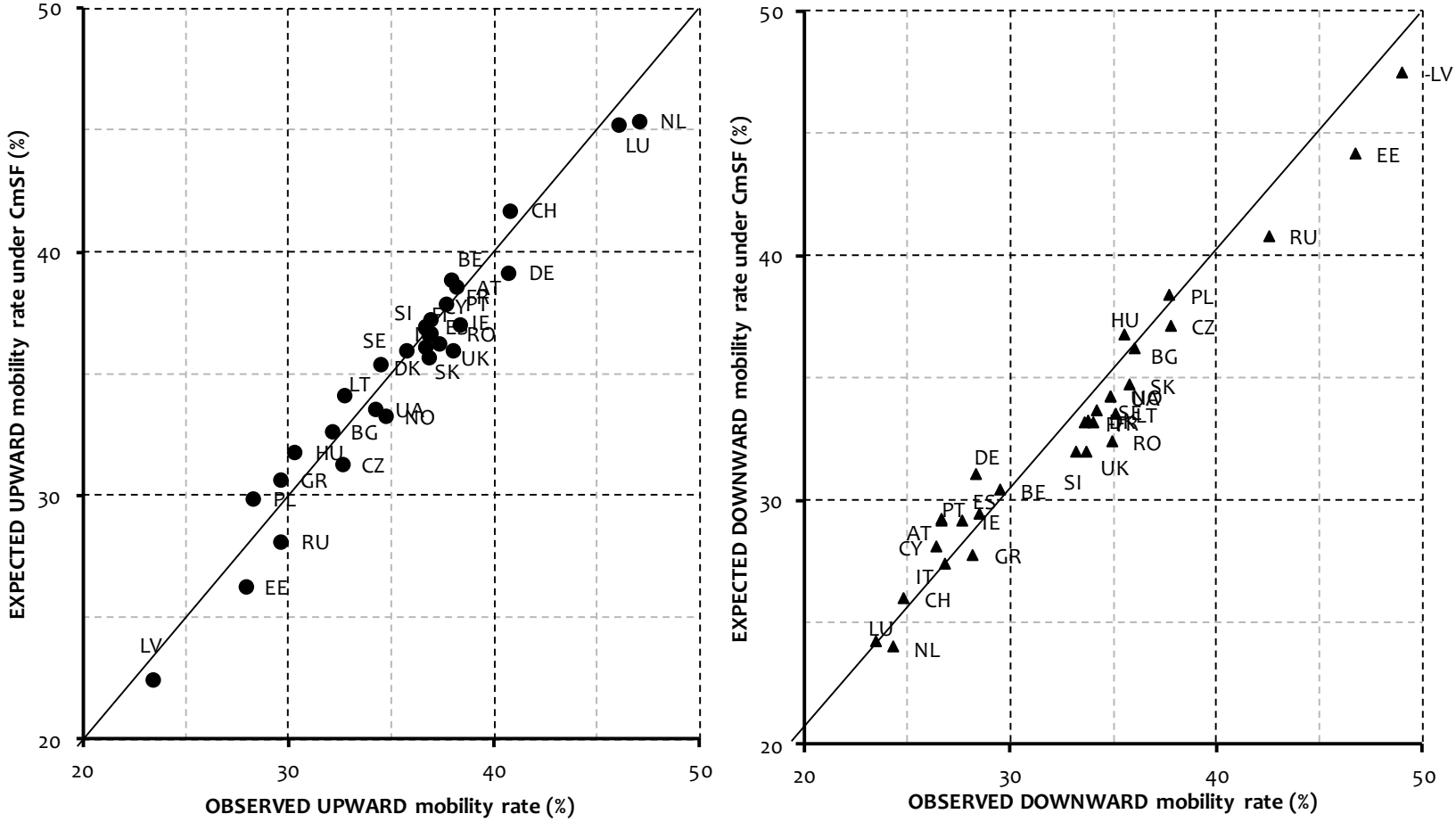


FIGURE 8: Observed rates of upward and downward mobility and expected rates of upward and downward mobility under the Common Social Fluidity Model (CmSF), men aged 25-64



Note: The Common Social Fluidity Model assumes the *same rates of relative mobility across Europe*.

APPENDIX

APPENDIX A: Distribution of men (aged 25-64) by ESEC class of destination (D) and class of origin (O) in 30 European countries (%)

	AT		BE		BG		CH		CY		CZ		DE		DK		EE		ES	
	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O
Class 1	11.8	9.2	17.3	13.6	7.7	9.8	17.9	11.5	11.4	3.9	8.1	7.5	16.5	11.2	20.0	17.5	14.0	19.1	10.0	7.7
Class 2	26.2	15.8	22.4	20.4	12.8	16.3	26.3	17.4	13.0	8.3	16.0	21.4	22.1	17.8	19.5	16.4	9.9	15.4	11.6	9.3
Class 3	9.0	9.0	4.7	5.3	2.7	3.5	5.7	6.1	8.2	5.0	4.0	6.6	5.5	7.5	5.7	4.0	1.3	4.9	7.3	4.1
Class 4	11.8	24.1	10.8	20.4	8.8	4.6	13.6	27.2	17.0	45.4	12.3	3.7	10.0	12.4	10.6	27.4	9.9	3.3	17.9	28.4
Class 5	12.5	11.3	15.6	8.1	5.7	5.9	15.0	11.3	13.4	5.0	7.9	7.8	14.5	12.9	13.3	7.6	11.3	10.5	11.9	6.0
Class 6	17.9	20.3	13.8	17.0	32.0	30.5	12.8	16.5	22.6	13.6	27.9	38.1	18.4	27.8	15.7	14.7	26.8	34.5	21.7	21.8
Class 7	10.9	10.3	15.3	15.2	30.3	29.3	8.7	10.1	14.5	18.8	23.8	14.9	12.9	10.4	15.4	12.5	26.9	12.3	19.6	22.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N	2599	2493	2792	2619	1645	1639	2925	2779	1021	1034	2776	2746	4582	4350	2490	2482	1791	1568	2940	2802
	FI		FR		GR		HU		IE		IT		LT		LU		LV		NL	
	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O
Class 1	20.3	9.0	16.9	13.8	9.2	4.1	8.5	8.9	14.0	8.2	10.6	4.8	8.2	10.6	15.1	8.4	5.7	18.3	22.1	11.0
Class 2	17.7	19.7	21.7	16.6	10.8	5.8	11.3	16.9	16.5	14.2	14.8	14.3	13.2	18.0	23.7	13.9	12.5	19.4	25.5	20.3
Class 3	2.5	3.9	7.4	6.3	4.1	3.6	3.0	5.1	3.0	3.6	6.2	5.3	2.7	3.8	4.9	4.0	2.6	2.1	4.0	4.9
Class 4	14.4	32.9	9.2	19.2	33.3	57.4	9.9	4.9	21.0	33.7	25.6	37.0	4.9	4.8	7.8	20.5	6.2	2.4	11.4	21.7
Class 5	6.8	5.2	10.4	11.8	7.7	3.3	7.3	8.3	10.6	7.9	10.2	5.6	4.1	2.7	17.2	11.1	6.1	7.6	15.7	12.8
Class 6	22.4	19.0	19.3	20.5	19.9	11.6	32.8	30.4	16.8	12.6	13.9	13.1	37.1	21.7	16.3	22.0	34.5	28.8	12.6	17.4
Class 7	16.0	10.3	15.1	11.9	15.1	14.3	27.2	25.6	18.1	19.9	18.6	19.8	29.7	38.5	15.0	20.2	32.5	21.5	8.7	11.8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N	3184	3115	2792	2692	2662	2638	2263	2128	2936	2643	826	769	878	840	1045	1010	893	831	3077	2887
	NO		PL		PT		RO		RU		SE		SI		SK		UA		UK	
	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O	D	O
Class 1	14.9	14.2	8.7	5.8	5.6	3.3	12.4	5.9	13.6	21.2	19.2	14.6	12.9	13.1	7.9	14.1	10.8	18.3	18.4	16.1
Class 2	25.8	28.3	13.8	15.8	12.0	5.3	12.3	9.8	10.5	20.2	22.4	22.4	16.8	16.6	17.4	14.8	18.2	18.5	20.0	23.1
Class 3	5.4	2.5	2.4	3.5	4.9	3.3	2.7	1.2	2.0	1.5	5.2	5.8	4.1	3.8	3.0	2.9	1.5	1.3	3.5	4.4
Class 4	11.8	21.8	18.9	34.6	16.2	30.0	5.8	16.4	8.2	1.9	10.8	20.2	11.3	15.1	13.2	2.8	7.9	2.3	16.0	13.5
Class 5	17.8	10.4	10.2	6.8	10.5	5.9	8.9	8.1	10.9	6.0	11.0	7.4	20.4	14.9	9.8	9.8	8.9	6.9	14.7	11.9
Class 6	14.8	14.7	24.9	18.5	31.6	28.6	32.7	38.2	28.4	26.5	16.6	20.2	20.9	22.5	24.0	30.8	26.5	22.8	10.2	16.0
Class 7	9.6	8.1	21.1	15.1	19.3	23.8	25.2	20.5	26.4	22.9	14.8	9.4	13.8	14.0	24.8	24.8	26.3	29.8	17.2	15.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N	3143	3049	2700	2640	2460	2393	1133	1001	2040	1963	2962	2872	1977	1397	2019	2012	1862	1830	3350	3121

APPENDIX B: Missing and non-applicable cases on ESEC social class among men (aged 25-64) in the European Social Survey (%)

		ESEC Destination		ESEC Origin	
	N	*Missing*	*Not applicable*[a]	*Missing*	*Not applicable*[b]
AT	2,824	2.23	2.55	5.38	4.14
BE	2,864	0.52	1.12	1.82	5.79
BG	1,640	1.1	1.65	2.38	0.85
CH	3,033	1.22	0.79	4.29	2.56
CY	1,061	1.23	1.7	0.57	0.94
CZ	2,921	3.25	2.05	6.13	1.19
DE	4,740	1.31	1.37	4.62	2.49
DK	2,589	2.63	0.35	1.74	1.39
EE	1,832	0.55	0.82	11.57	1.97
ES	3,093	2.49	1.23	4.49	3.62
FI	3,249	0.52	0.62	0.49	2.61
FR	2,863	0.91	1.19	1.15	4.33
GR	2,679	0.26	1.57	0.45	2.32
HU	2,363	1.74	0.72	4.27	3.98
IE	3,068	0.78	2.02	5.57	7.04
IT	891	2.36	4.38	10.77	4.6
LT	927	2.7	2.59	6.26	3.13
LU	1,051	0.86	2.66	1.9	3.05
LV	918	0.98	1.74	5.56	3.93
NL	3,084	0.39	0.91	2.43	4.86
NO	3,225	0.43	0.37	1.15	2.48
PL	2,768	0.43	1.3	1.55	2.35
PT	2,409	0.75	1.54	2.28	2.79
RO	1,315	11.03	2.81	17.26	7.15
RU	2,048	2.1	1.51	4.54	3.03
SE	3,026	0.36	0.89	1.92	2.18
SI	2,130	4.51	1.88	19.58	14.18
SK	2,070	3	2.27	3.48	2.03
UA	1,846	2.6	2.11	4.23	2.6
UK	3,309	0.51	1.21	3.57	4.59
Total	71,836	1.79	1.60	4.71	3.61

Notes:

[a] Non applicable suggests that the respondent never had a paid job

[b] Non applicable suggests that parental class is not available because the parents are dead, absent or not working when the respondent was 14

APPENDIX C: Pairwise country differences in the average global log-odds ratios of the central section of mobility tables divided by the standard errors of these differences, men aged 25-64

	Country B																												
Country A	SI	FI	FR	UK	LV	EE	SK	NO	AT	CH	NL	RU	IE	GR	RO	SE	CZ	DK	UA	LT	BE	DE	CY	IT	LU	ES	PL	BG	PT	HU
SI		-0.21	-0.49	-0.39	-0.43	0.27	0.17	-1.03	0.40	0.28	-0.09	0.83	0.03	0.19	0.41	0.04	0.34	0.71	0.16	0.23	0.39	1.68	0.87	0.58	2.02	2.14	2.12	3.39	2.68	2.63
FI			-0.44	-0.28	-0.34	0.66	0.55	-1.31	0.93	0.75	0.18	1.48	0.27	0.01	0.73	0.27	0.85	1.42	0.51	0.49	0.94	2.63	2.32	0.32	2.40	2.63	2.19	4.92	3.99	4.14
FR				0.17	-0.07	1.01	0.92	-0.83	1.32	1.15	0.59	1.83	0.68	0.39	0.99	0.70	1.25	1.80	0.87	0.74	1.34	3.02	1.58	1.58	2.66	2.98	2.55	5.18	4.27	4.43
UK					-0.17	0.89	0.79	-1.03	1.20	1.02	0.45	1.72	0.54	0.26	0.90	0.55	1.12	1.69	0.75	0.65	1.21	2.94	1.49	2.48	2.58	2.90	2.46	5.14	4.22	4.38
LV						0.75	0.67	-0.44	0.90	0.79	0.44	1.29	0.49	0.32	0.83	0.50	0.85	1.20	0.65	0.64	0.90	2.08	1.27	0.51	2.08	2.22	2.05	3.72	3.04	3.01
EE							-0.13	-1.72	0.15	0.00	-0.49	0.69	-0.41	-0.57	0.22	-0.43	0.07	0.54	-0.13	0.01	0.13	2.01	0.75	0.15	2.01	2.36	2.00	3.79	2.94	2.94
SK								-1.67	0.30	0.14	0.37	0.85	0.29	0.47	0.32	-0.31	0.22	0.71	-0.01	0.10	0.28	1.63	0.86	0.05	1.86	2.03	1.40	4.04	3.17	3.20
NO									1.47	1.59	1.42	2.58	1.51	1.12	1.52	1.57	1.79	1.60	1.60	1.25	2.19	4.03	2.12	2.08	3.23	3.84	3.41	5.90	5.00	5.25
AT										-0.17	-0.72	0.61	-0.64	-0.79	0.12	-0.67	-0.09	0.44	-0.30	-0.10	-0.02	1.42	0.67	0.27	1.71	1.59	1.18	3.98	3.07	3.10
CH											-0.55	0.77	-0.46	-0.63	0.23	-0.49	0.09	0.62	-0.15	0.01	0.16	1.63	0.80	0.15	1.83	1.77	1.36	4.14	3.23	3.27
NL												1.28	0.09	-0.14	0.60	0.08	0.64	1.18	0.35	0.37	0.72	2.28	1.18	0.20	2.23	2.34	2.11	4.63	3.72	3.82
RU													-1.20	-1.30	-0.32	-1.24	-0.70	-0.21	-0.84	-0.52	-0.64	0.60	0.21	0.67	1.18	0.84	0.47	3.22	2.34	2.29
IE														-0.22	0.54	-0.01	0.56	1.10	0.27	0.31	0.63	2.18	1.12	0.15	2.17	2.26	2.03	4.56	3.65	3.74
GR															0.67	0.22	0.72	1.20	0.44	0.45	0.79	2.16	1.22	0.29	2.22	2.25	2.05	4.43	3.58	3.63
RO																-0.56	-0.18	0.18	-0.32	-0.17	-0.13	0.78	0.45	0.31	1.26	0.96	0.69	2.86	2.15	2.08
SE																	0.59	1.15	0.28	0.32	0.67	2.31	1.14	0.15	2.22	2.35	2.02	4.68	3.76	3.87
CZ																		0.54	-0.23	-0.05	0.07	1.55	0.74	0.21	1.78	1.70	1.29	4.10	3.18	3.22
DK																			-0.70	-0.39	-0.48	0.94	0.37	0.56	1.40	1.16	0.75	3.64	2.72	2.72
UA																				0.11	0.29	1.59	0.86	0.04	1.84	1.74	1.37	3.96	3.11	3.12
LT																					0.09	0.98	0.61	0.13	1.41	1.15	0.88	2.98	2.30	2.23
BE																						1.50	0.70	0.25	1.75	1.66	1.24	4.08	3.15	3.20
DE																							-0.20	-1.14	0.87	0.38	-0.08	3.20	2.19	2.16
CY																								-0.75	0.81	0.42	0.14	2.39	1.67	1.57
IT																									1.55	1.31	1.04	3.13	2.44	2.38
LU																										-0.58	-0.87	1.53	0.78	0.64
ES																											-0.41	2.66	1.72	1.63
PL																												3.00	2.06	2.00
BG																													-0.87	-1.14
PT																														-0.22
HU																														

APPENDIX D: UNIDIFF parameters for each pair of countries, men aged 25-64

	Country B																												
Country A	SI	FI	FR	UK	LV	EE	SK	NO	AT	CH	NL	RU	IE	GR	RO	SE	CZ	DK	UA	LT	BE	DE	CY	IT	LU	ES	PL	BG	PT	HU
SI	1.00	1.02	0.99	0.93	0.84	0.75	1.03	0.96	1.27	1.23	1.23	0.88	1.11	1.19	0.98	0.99	0.97	1.08	0.98	0.90	1.22	1.26	1.30	1.02	1.33	1.41	1.50	1.28	1.61	1.34
FI		1.00	0.96	0.90	0.83	0.83	0.97	0.89	1.28	1.19	1.07	0.88	1.06	1.11	0.94	0.94	1.01	0.99	0.94	0.89	1.19	1.35	1.21	1.03	1.26	1.28	1.38	1.24	1.46	1.35
FR			1.00	0.84	0.81	0.81	0.99	0.94	1.33	1.24	1.14	0.91	1.07	1.19	0.98	1.00	1.06	1.05	0.93	0.95	1.22	1.35	1.22	1.05	1.28	1.37	1.54	1.29	1.66	1.39
UK				1.00	0.93	0.93	1.11	1.19	1.47	1.45	1.36	0.98	1.30	1.48	1.08	1.12	1.17	1.18	1.10	1.04	1.45	1.40	1.41	1.29	1.45	1.65	1.89	1.44	1.87	1.64
LV					1.00	1.05	1.37	1.23	1.51	1.46	1.59	0.99	1.30	1.61	1.27	1.25	1.32	1.42	1.19	1.17	1.47	1.66	1.86	1.67	1.82	1.84	1.92	1.82	1.95	1.93
EE						1.00	1.31	1.28	1.38	1.47	1.52	1.04	1.34	1.63	1.17	1.25	1.37	1.40	1.22	1.19	1.51	1.62	1.97	1.71	1.94	1.83	1.85	1.66	1.94	1.89
SK							1.00	1.02	1.24	1.24	1.27	0.81	1.15	1.20	0.90	1.04	1.02	1.16	0.98	0.91	1.26	1.38	1.38	1.24	1.46	1.47	1.63	1.35	1.70	1.58
NO								1.00	1.34	1.35	1.23	0.85	1.15	1.27	1.01	1.04	1.05	1.09	0.90	0.83	1.26	1.22	1.30	1.13	1.34	1.42	1.62	1.31	1.65	1.38
AT									1.00	0.92	0.84	0.68	0.92	0.82	0.80	0.74	0.86	0.79	0.69	0.67	0.91	0.96	0.88	0.82	0.98	0.97	1.04	1.01	1.19	1.09
CH										1.00	0.90	0.68	0.91	0.96	0.80	0.79	0.86	0.81	0.76	0.73	0.98	0.92	0.99	0.83	1.02	1.10	1.16	1.06	1.28	1.09
NL											1.00	0.74	0.98	1.01	0.78	0.89	0.92	0.92	0.75	0.72	1.10	1.24	0.99	0.86	1.11	1.20	1.30	1.18	1.40	1.25
RU												1.00	1.19	1.48	1.16	1.22	1.26	1.35	1.17	1.13	1.40	1.60	1.69	1.57	1.63	1.71	1.89	1.60	1.90	1.84
IE													1.00	1.01	0.84	0.91	0.93	0.94	0.88	0.89	1.11	1.04	1.00	0.94	1.11	1.15	1.29	1.22	1.29	1.24
GR														1.00	0.80	0.80	0.92	0.84	0.77	0.69	1.08	0.99	1.02	0.89	1.05	1.12	1.22	1.10	1.28	1.23
RO															1.00	0.98	1.04	1.16	1.05	0.89	1.36	1.56	1.54	1.35	1.41	1.43	1.48	1.41	1.85	1.46
SE																1.00	1.06	1.04	0.90	0.89	1.20	1.18	1.32	1.18	1.28	1.36	1.51	1.29	1.67	1.35
CZ																	1.00	1.03	0.85	0.83	1.19	1.21	1.26	1.28	1.29	1.35	1.51	1.28	1.69	1.32
DK																		1.00	0.85	0.88	1.15	1.10	1.25	1.06	1.21	1.31	1.47	1.35	1.53	1.27
UA																			1.00	1.27	1.27	1.45	1.27	1.38	1.38	1.51	1.72	1.42	1.88	1.66
LT																				1.00	1.27	1.41	1.66	1.50	1.67	1.57	1.68	1.44	1.74	1.27
BE																					1.00	0.97	0.86	0.81	0.98	1.09	1.23	1.03	1.26	1.11
DE																						1.00	1.02	0.97	1.03	1.15	1.24	0.98	1.35	1.06
CY																							1.00	0.84	0.95	1.12	1.22	0.89	1.35	1.02
IT																								1.00	1.09	1.17	1.39	0.97	1.42	1.12
LU																									1.00	1.09	1.22	0.93	1.37	1.04
ES																										1.00	1.10	0.92	1.15	1.00
PL																											1.00	0.82	1.05	0.90
BG																												1.00	1.38	1.15
PT																													1.00	0.80
HU																														1.00