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Inequality and intergenerational mobility: a vicious circle?

Maurizio Franzini * and ***Michele Raitano***[**]

Abstract

One of the most negative consequences that economic inequality can have is to curb intergenerational mobility, that is, to make the fate of individuals more dependent on the economic conditions of the family of origin. In this work, based on empirical evidence, it is argued that in our age inequality affects intergenerational mobility through multiple channels, not just the human capital to which reference is more often made in literature. Furthermore, we highlight some reasons why, depending also on these mechanisms, it is possible that a vicious circle is established between inequality and intergenerational immobility.

Introduction

Economic inequality is often assessed on the basis of the consequences that it may bring about. The consequence that receives more attention is economic growth and there is much discussion about whether the effects of inequality on it are positive or negative. However, inequality may have many other economic, social and also political consequences on which there is still a lot to be learnt. One possible consequence of great importance refers to the degree of social and economic mobility across generations. Recently, concerns have been voiced about the possible negative effects of current inequality on future social and economic mobility.

Among others, Ermisch et al. (2012, p.3) write: “Of all the potential consequences of rising economic inequality, none is more worrisome, or more difficult to study, than the possibility that rising inequality will have the long-term effect of reducing equality of opportunity and intergenerational mobility”, where, as discussed afterwards, following Roemer (1998), inequality of opportunity

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emerges when individual outcomes are constrained by circumstances not under the individual control (e.g., gender, parental background) independent on their merits, and intergenerational mobility refers to the strength of the link between parental background and offspring socio-economic outcomes.

Actually, the relationship between economic inequality and intergenerational mobility is a very complex one and its study requires overcoming many difficulties. The first one concerns the very notion of intergenerational mobility to be employed and how to measure it. Indeed, several possibilities are open beginning with the choice of the main variable to refer to; e.g., occupational status as preferred by sociologists or income as economists usually do. There is also the problem of having access to data of good quality and of the choice of the best measure of intergenerational mobility. Further issues arise in the identification of the mechanisms that can link parents' characteristics with children's prospects and still more complex is the identification of the causal mechanisms behind a possible association between economic inequality and intergenerational mobility. Indeed, a causal relationship between the two types of inequality might act in both directions – i.e., intergenerational inequality influences current inequality and vice versa – and, more generally, economic inequality and intergenerational immobility might feed each other in a process which can be seen as a vicious circle lasting for a very long time.

The economic literature usually considers investment in human capital, that is actually affected by parents' characteristics in all countries (Hertz et al. 2007), as the main driver of intergenerational mobility and also as the main mechanism that explains why a positive correlation between current income inequality and intergenerational inequality emerges across countries (Solon 2004). In what follows, after having briefly reviewed what intergenerational mobility is and how it can be measured, we will address these issues pointing out that mechanisms different from the one usually considered, and focused on human capital and education, might explain why the earnings of children with better-off parents are on average higher and why in more unequal countries inequality is more easily transmitted across generations, thus making it very likely that the vicious circle mentioned above is already in motion.

1. Intergenerational mobility and its measurement

The literature on intergenerational mobility investigates the link between individuals' outcomes when adult (e.g. education, occupation, income) and the

characteristics of their family background and assesses whether and how much socio-economic inequalities persist in subsequent generations.

This issue has been studied for a very long time by sociologists (e.g. Breen 2004). In their approach the crucial variable is the occupational status of both parents and children and ascending or descending mobility is defined on the basis of a ranking of the various occupational statuses. Actually, talking of social mobility is to refer to the influence that parents' occupational status exerts on their children occupational status.

Economists have long been silent on this issue and the main reason was the lack of reliable data on income earned by individuals belonging to two subsequent generations. When such data have become available for some countries and/or new techniques have been adopted that overcome the problem of data availability, economists started to be concerned with the problem of intergenerational mobility and took income (usually earnings) as the crucial variable for assessing the persistence of the socio-economic status between parents and children. Therefore, economists usually focus on intergenerational income inequality, that is the association between parents' characteristics – possibly income, when information on parents' incomes are available – and children incomes.

Social mobility, as considered by sociologists, focuses on an important feature of societies and of their dynamics. However, there is more than one reason (including the difficulty in producing a valid ranking of occupational statuses over a long span of time and across countries, also due to the structural changes of economic systems) for considering income – which, however, is to some extent related to the occupational status – the crucial variable in the study of intergenerational mobility and of the implied transmission of inequality between parents and children.

Intergenerational inequality is usually measured through the intergenerational earnings elasticity β that is estimated through OLS by regressing children's log income on parental income (e.g. Bjorklund and Jantti 2009)[1]:

$$y_c = \alpha + \beta y_p + \varepsilon$$

where y_c and y_p are, respectively, log of children's and parents' incomes, α is the mean income of children generation and ε is a residual.

1 Alternative measures are available (Berman 2017). One of them is the Rank-Rank slope which refers to the correlation between parents' and their children positions in the income rankings of their respective cohorts. The relative merits of these two indexes are much debated in this literature field (Chetty et al. 2014).

Thus, the intergenerational elasticity measures how much of parents' income gap persists among children (e.g. β=0.5 signals that, on average, half of the gap in parents' incomes persists among sons). Therefore, the higher the β elasticity the more children earnings are correlated with parent's earnings and the less economically mobile the society is. Hence, intergenerational mobility, interpreted in this way, has much to do with the transmission of inequality from one generation to the next. More precisely, the closer β is to 1, the stronger the transmission of inequality. When it is equal to 1, inequality among the offspring is a perfect mirror of that among their parents; in other words, the society is completely immobile in terms of incomes. When β is zero, mobility is perfect (children incomes are not correlated with their parents' incomes), and no inequality is transmitted across generations. Theoretically the value of β is unlimited; however, following a regression-to-the mean process, all studies show a positive, but incomplete, process of intergenerational transmission, thus $0< \beta<1$ (Corak 2013a).

However, the β elasticity might be considered a too much synthetic indicator, as it points out only the mean level of intergenerational transmission – assuming an underlying linear relationship – without informing about the features of the process in the different parts of the income distribution (Bratsberg et al. 2007; Raitano, Vittori and Vona 2016). Policy implications would instead be very different if, for instance, the same β were linked to a high mobility in all quintiles apart the last one (i.e. if a sort of entry barrier in the richest group emerges) or if it is linked to a low probability to escape from the poorest quintile (i.e. if a poverty trap emerges).

Moreover, estimating the intergenerational elasticity β is a very demanding task due to some methodological problems related to the age at which parental and children incomes have to be observed and due to the characteristics of the needed data.

A correct estimate should take into account permanent incomes (e.g. earnings along the whole working life) of both parents and children. Therefore, longitudinal data tracking individuals for many decades would be needed. This kind of dataset is currently available nowhere. In actual studies the β elasticity is estimated observing parents' and children's income distribution in, at most, a few years (and, more often, in single years). However, empirical analyses (e.g. Haider and Solon 2006, Nybom and Stuhler 2016, Raitano, Barbieri and Bloise 2017) show that the estimates of the β elasticity are significantly affected by the number of years of observation of parents' and children's incomes (the so-called

"attenuation bias") and, mostly, by the age of children when their incomes are observed (the so-called "life cycle bias").

In other terms, the estimation of the "true" relationship between permanent incomes of succeeding generations can be biased both by the fact that only a part of individual life is observed and by the specific phase of individual lives that can be observed. Being usually not available wide longitudinal data enabling to address the issue of life cycle, most empirical studies suggests considering men aged approximately 35-49 – because at those ages the differences between current income and permanent income would be minimized – while for women a simple rule does not emerge, since women display more variety in their life-cycle income profiles (Bohlmark and Lindquist, 2006; Haider and Solon, 2006). On the contrary, if too young children were considered (i.e. aged less than 30) the β elasticity would be strongly underestimated since the various mechanisms behind the intergenerational correlation have not had enough time to act[2].

The estimation of income intergenerational inequality is also limited by the availability of proper panel data and it has been carried out only in the few countries where long panel dataset recording, at least for some years, incomes for both parents and children are available (Nordic countries, the US and the UK). However, methodologies based on a two stages two sample instrumental variables procedure (2S2SLS; Bjorklund and Jannti 1997) allow researchers to estimate the β elasticity even when there are no longitudinal data, but repeated cross section surveys including retrospective information about parental characteristics are available, as in Italy (Piraino 2007, Mocetti 2007, Raitano, Barbieri and Bloise 2017) and Spain (Cervini-Plà 2015).

Finally, two further points are worth mentioning. The first is that only labour income is usually taken into account in this type of studies (and often self-employment income is not considered); the influence of parents' income on children capital income is not included in these measures of intergenerational mobility which, as a consequence, is surely underestimated due to the strong correlation between parents and children capital income being capital income (and often self-employment income too) more easily directly inherited from parents.

2 For instance, pioneer studies on income intergenerational mobility in the US (e.g. Becker and Tomes 1986) found a very low β, confirming the idea of US as the land of opportunities. Anyway, these studies where biased from having considered a too young sample of sons. When the same analysis has been repeated considering older sons a very high level of intergenerational inequality was found in the US (Solon 2002, Jantti et al. 2006).

The second is that, by definition, being based on an estimated coefficient, intergenerational inequality refers to relative instead than to absolute mobility. The latter compares the economic conditions of the children to the one of their parents and it is much dependent on the rate of economic growth and on the process of structural change in a society; for instance, as concerns education, absolute upward mobility is simply observed when a child studies more than her parents or, as concerns occupation, absolute mobility emerges when the child of a blue-collar attains a white-collar job. Relative mobility, on the contrary, refers to the possibility of ascending or descending in the socio-economic ranking with respect to the position occupied by own parents in their generation compared to the opportunities faced by children coming from different origins (Checchi and Dardanoni 2002)[3]. Relative mobility, in other words, aims at establishing the influence of the "points of departure" on the destination reached not if children are better off than their parents. Therefore, high relative income mobility implies that the sons of the poor will not be concentrated at the bottom of the social scale, nor the children of the rich at its top.

2. Intergenerational mobility and equality of opportunity

In order to understand the importance, per se, of the intergenerational economic mobility it is useful to make a comparison with the concept of equality of opportunity which is widely referred to as the less disputable notion of equality.

The basic idea of the theory of equality of opportunity is that inequalities due to factors which are not under the individual control are not to be accepted (Swift 2005). Roemer (1998), in this vein, made a clear distinction between circumstances and efforts and argued that equality of opportunity is fulfilled when circumstances play no role in actual inequalities. Further, Roemer (2004) produced a list of the main factors determining income inequality because they may be rewarded by the markets: genetic abilities and traits such as intelligence, health, physical look; competences and knowledge acquired during formal education or through the influence of the family background; individual aspirations, preferences (also towards effort), cultural values and soft skills; the social networks to which one has access that may strongly influence the chances of getting good jobs.

However, classifying each of these factors as a circumstance (generating

3 Recently there have been attempts to study multigenerational transmission, i.e. the influence of earlier generations and not only the previous one. While interesting these studies suffer from lack of reliable data (Clark 2014).

unacceptable inequality) or effort (viewed as a cause of just inequality) is not a simple task because one might disagree on where individual responsibility ends given that almost all individual characteristics are exogenously affected by the parental influence. An extreme position is to argue that all these factors are to be considered as circumstances and, therefore, no inequality in the outcomes is acceptable. The opposite extreme position is when it is assumed that individual responsibility lies behind all these factors, so that inequality is always fully acceptable. Both views are clearly untenable. Between these extreme positions a compromise should be found. A reasonable view could be to consider as unacceptable both the advantages coming from families' social networks, and the disadvantages coming from the inability to improve one's own human capital due to a poor family background. Inequalities stemming from these two factors might thus appear as a violation of a fair idea of equality of opportunity (Franzini 2013).

We can now link this analysis to the transmission of economic inequality. The first step is to recognize that all the listed factors of inequality are related to parents' characteristics and, usually, to family income. Advocating zero transmission of inequality amounts, therefore, to treat all those factors as unacceptable, which is not easy to argue, as we have seen. So, we can conclude that no intergenerational transmission (i.e. perfect social mobility) is not the same thing as equality of opportunity, if the latter is properly defined. The compatibility between these two conceptions would be possible if unacceptable factors (e.g. the advantage from social networks and the disadvantage from economic barriers to education) are eliminated, and richer families are not allowed to transfer to their sons and daughters an advantage under these two channels.

Therefore, causes and mechanisms of intergenerational transmission of inequality are crucial for establishing whether they are compatible or not with the widely accepted notion of equality of opportunity. To identify such mechanisms is, therefore, of utmost importance and a careful analysis of how the labour market works is necessary in order to identify them. This is to say that institutions – in particular labour market institutions – matter to determine whether the conditions of equality of opportunity are met. Before going into this issue, we need to analyse some data both on the intergenerational transmission of inequality and its relationship with current economic inequality.

3. Intergenerational transmission of inequality: some data

Available data show that, at least in some countries, the correlation between individuals' labour earnings and their parents' income is very high (see, among the others, Solon 2002, Corak 2013b, Blanden 2013). This means that rich parents transmit to their children not only the wealth from which they will earn capital income, but also some other traits that allows them to get, on the average, a higher labour income, either as an employee or as a self-employed.

According to many empirical studies the European countries where the β coefficient is lower are the Nordic ones followed by Germany, Spain and France; the United Kingdom and Italy show much higher values and are the least mobile: at least 50% of the inequality existing between parents is transmitted to the next generation. If we extend the analysis beyond Europe, the United States emerges as an immobile society, not much different, according to this measure, from the worst-performing European countries. This finding came as a surprise to those who believed in the "American dream" of high mobility. Canada and Australia perform much better, and also in Japan the transmission of inequality is much lower than in the United States. Figure 1 shows these findings.

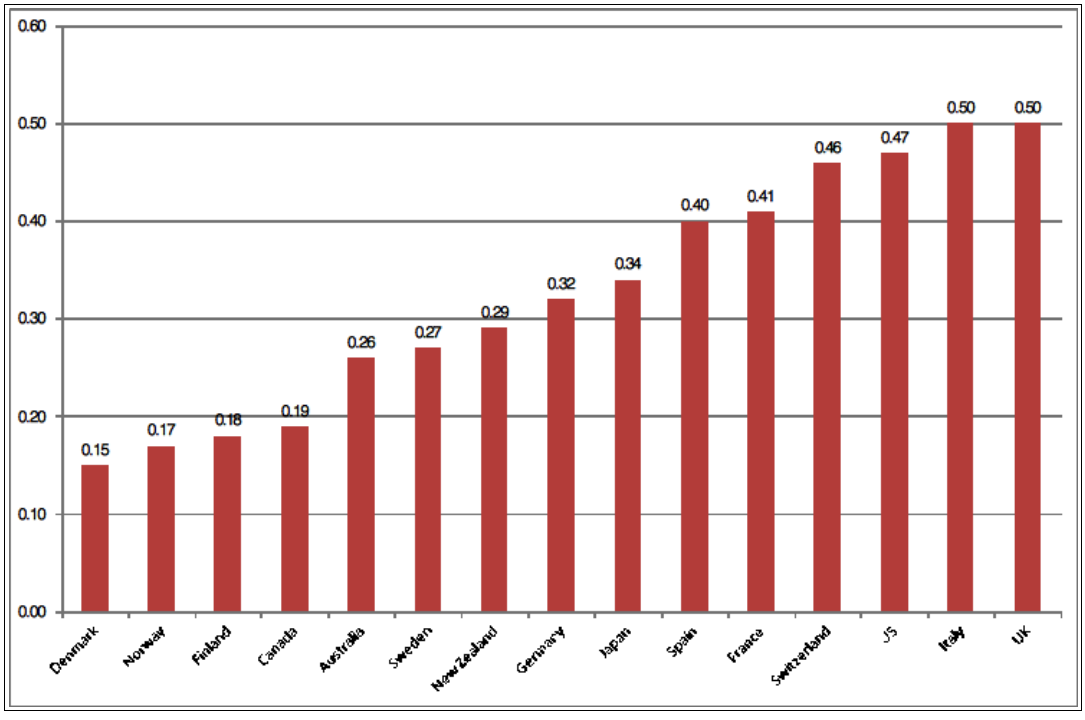

Fig. 1: Intergenerational elasticity β of parents' and children's earnings in some OECD countries

Source: elaborations on Corak (2013b)

To highlight possible drivers of cross-country differences it has to be pointed out

that intergenerational income inequality emerges when two conditions are jointly verified:

1. Parents affect some children traits, e.g., education, abilities, social networks;

2. Children traits influenced by parents are rewarded by the labour markets (e.g., those with better abilities or social network are paid more than those with a lower quality of such traits).

Therefore, differently from the concept of social mobility that only focuses on the transmission of certain traits (usually, occupation or education), differences in intergenerational inequality also depend on the return got on these traits. As a consequence, cross-country differences in intergenerational inequality may depend both on the degree of influence exerted by parents on children endowment of certain traits (e.g., on the parental influence on the quality of the attained education) and on different returns received by the same trait in different countries. For instance, a more compressed wage distribution reduces the advantage for those who received a better education or more competitive markets where workers' social connections are not valuable strongly reduce advantages related to the inheritance of stronger social networks (Franzini, Patriarca and Raitano 2016).

When assessing the mechanisms underlying the β elasticity – especially in cross-country comparisons – and their acceptability one has then to inquire: i) how strong is the influence of parental background on children endowments of a certain trait; ii) what types of "transmitted traits" are rewarded by the markets; iii) what is the size of the reward. Only a careful distinction of these traits and their rewards might allow researchers to infer the drivers of intergenerational inequality, assess its acceptability and link it to the notion of equality of opportunity.

4. Economic inequality and its intergenerational transmission

It has been maintained for a long time that a high level of income inequality can be more acceptable, and actually accepted even by the losers, if it is accompanied with a high level of mobility, i.e. a high chance for everybody to reach the top of the ranking under a condition of substantial equality of opportunity. It was also assumed, mainly based on some anecdote, that in some countries – specifically in the U.S. – high inequality was coupled with high mobility.

Thanks to the improvement in the quality and availability of data, and also to more refined estimation techniques, we are now in a better position to assess the soundness of such a claim. And the results are that there is much evidence against it.

According to a number of empirical studies, current inequality is indeed positively correlated with its intergenerational transmission. As Figure 2 shows, the countries where income inequality is low are generally countries where the intergenerational inequality, measured by the β elasticity, is relatively high and vice versa. Italy, the United Kingdom and the United States exhibit the worst performance in both these dimensions. This relationship has been labelled "the Great Gatsby curve" by Alan Krueger (2012).

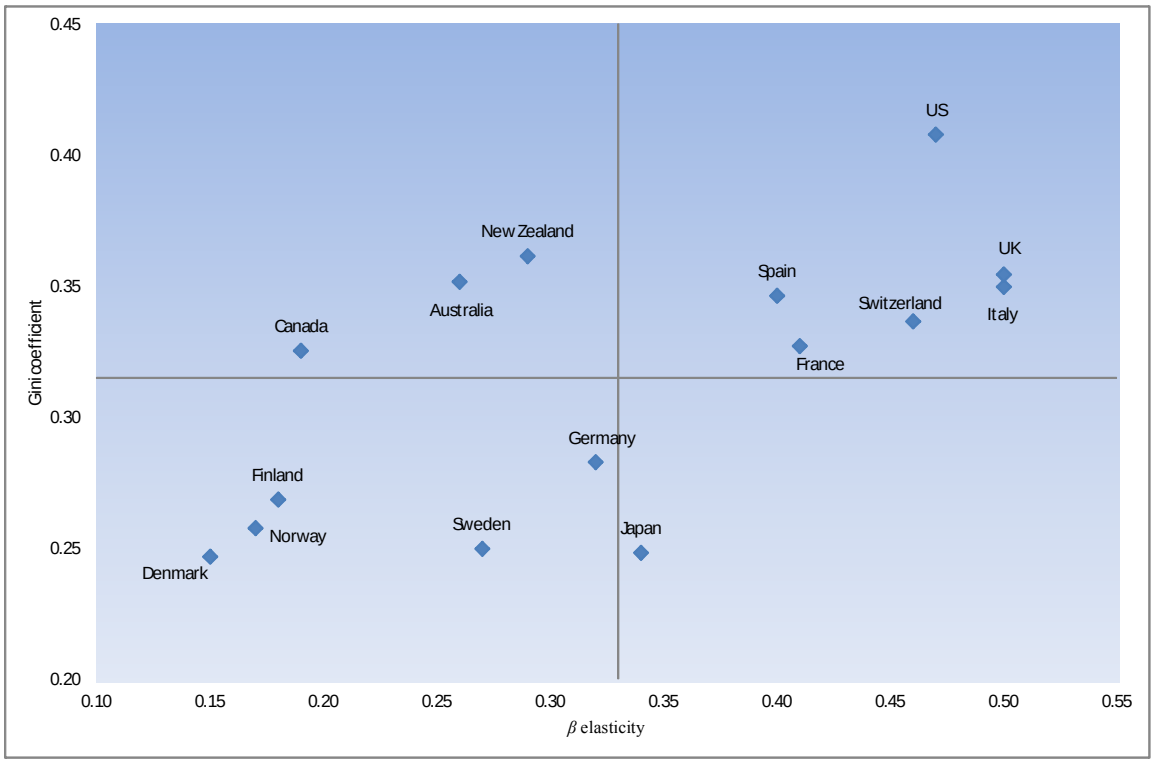

Fig. 2: Current inequality and intergenerational income elasticity in some OECD countries

Source: elaborations World Bank database and Corak (2013b)

This evidence leads to challenge the idea that current inequality and its intergenerational transmission are independent phenomena, with different mechanisms at their roots.

The correlation suggests that income inequality could be one of the main forces behind low economic mobility. Before arriving to this conclusion, however, we

must inquire into the possible mechanisms of economic immobility, assess their empirical relevance and identify the ways in which current inequality can fuel one or another of those mechanisms.

Indeed, a link between current and intergenerational inequality emerges when current earnings inequality depends on a certain trait – e.g., education, abilities – that is influenced by parental background. According to this view, a higher earnings dispersion associated with a trait influenced by parents – e.g. a higher skill premium in countries, like the US, where good Universities are not accessible to everyone (Belley and Lochner 2007) – would explain the existence of "the Great Gatsby curve". However, as already mentioned, intergenerational inequality might also depend on rewards of traits different from human capital but still affected by parents, i.e. on social connections. In countries where social connections are highly rewarded, a further root of the link between current and intergenerational inequality would emerge.

Furthermore, a higher level of current inequality might make the transmission of better traits from well-off parents to their children easier (e.g. a social stratified and highly heterogeneous educational system is implemented) and these traits (e.g. having attended an elite university) are even more rewarded by the ruling groups, thus strengthening the vicious circle between current an intergenerational inequality mentioned in the introduction.

5. Economic inequality and intergenerational mobility: which mechanisms?

The mainstream economic view of intergenerational inequality focuses on the key role played by family background in the accumulation of individual productive abilities, i.e. human capital (Becker and Tomes 1979, 1986, Solon 2004). Hence, differences in earnings and occupational attainments are usually viewed as a consequence of differences in human capital (usually proxied by educational attainments in empirical studies). As a consequence, only educational policies are suggested to improve the opportunities of those coming from a less advantaged background.

Becker and Tomes (1979 and 1986) have argued that a positive relationship between inequality within a generation and immobility across generations, can be explained through a microeconomic model for a family, assuming utility-maximizing behaviour. They base their results on a model in which individuals maximize their

utility, subject to their cost of acquiring education and inherited income.

This view rests on two hypotheses. The first one is that family background affects education (usually taken as a proxy for human capital) for several reasons: liquidity constraints in the presence of imperfect financial markets (Becker and Tomes 1979, 1986), costless transmission of genetic traits and endowments (Becker and Tomes 1979 and 1986, Bjorklund *et al.* 2006), extra-schooling investments by more advantaged parents (Duncan and Murnane 2011), peer effects (Benabou 1996). All these factors ease the access of well-off children to better quality schools (Blanden and Machin 2004). A second hypothesis is that differences in earnings, as well as in occupational attainments, are the consequence of differences in human capital endowments. Hence, this assumption implies a labour market in which competition and merit prevail.

Given these two hypotheses, better family economic conditions imply a richer human capital endowment, which in turn brings higher earnings. So increasing inequality leads to a lower social mobility through a more unequal distribution of human capital.

Probabilities computed as average partial effects from a logit model. Additional controls are gender, age, number of siblings and a dummy about the presence of both parents in the household when young. Offspring aged 35-49. Source: elaborations by Franzini and Raitano (2013) on EU-SILC 2005 data.

Data provide support for the first hypothesis. Being not available information on parental incomes in the cross-country survey EU-SILC (European Union Statistics on Income and Living Conditions), we follow Franzini and Raitano (2013) and make use of information about father's occupation as a proxy of parental background and estimate the association between father's occupation and children socio-economic outcomes (education and earnings) in 8 major EU countries.

Data suggest that everywhere there is a positive and highly significant association between parental background and offspring's educational attainment. More specifically, as shown in Figure 3, in all countries the probability of higher educational attainment is correlated with parental occupation. For example, in Italy the children of a manager are more than twice as likely as the sons of a blue-collar to get a university degree. In other countries the differential is less marked but always very sizeable. The advantage accruing to the children of white-collars is, as expected, smaller.

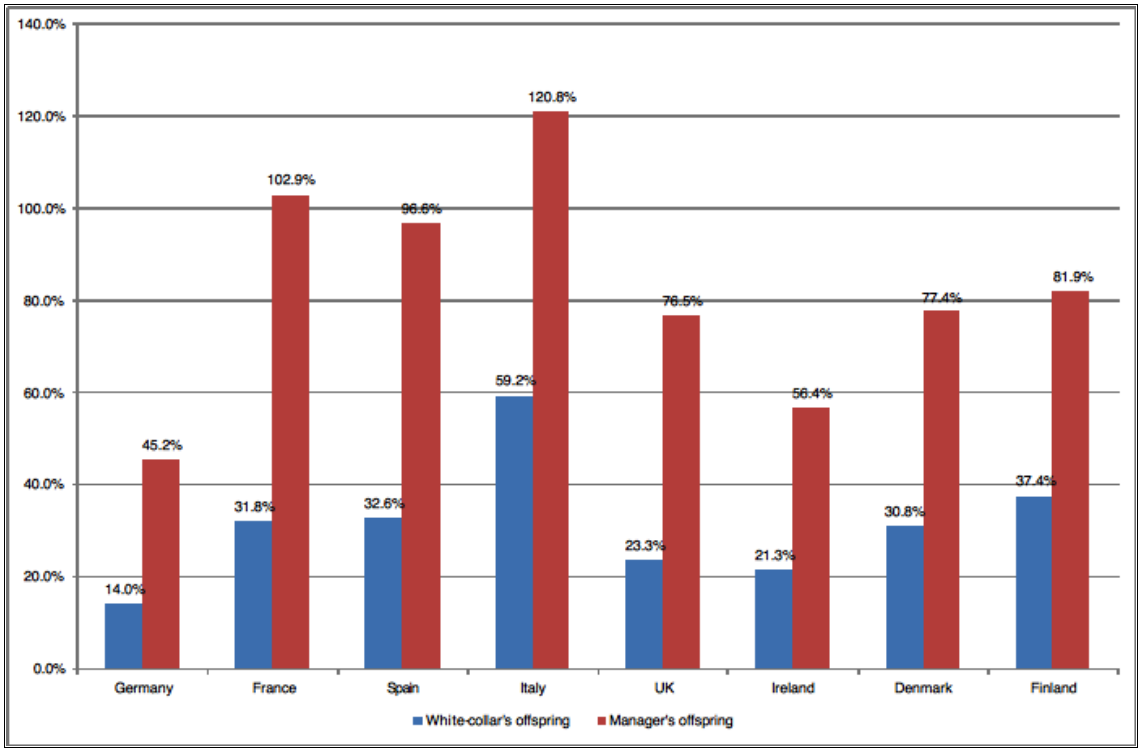

Fig. 3: The probability of attaining a tertiary degree: the advantage of better parental occupation with respect to blue-collar's offspring [+]

[+] Probabilities computed as average partial effects from a logit model. Additional controls are gender, age, number of siblings and a dummy about the presence of both parents in the household when young. Offspring aged 35-49. Source: elaborations by Franzini and Raitano (2013) on EU-SILC 2005 data.

Since parents' income is correlated with their occupation, this evidence supports the hypothesis that family economic conditions exert a major influence on children's education. An obvious implication is that more unequal distribution of income will aggravate this effect, producing greater educational inequality.

The second hypothesis on which this explanation is based is more controversial. There is no doubt that human capital delivers a premium, in particular a university degree yields a substantial (but internationally differentiated) positive return. But this holds only on average. Actually, human capital is a risky investment and the variance in its returns is considerable. According to our calculations (Franzini and Raitano 2015), in all countries inequality within groups of people with the same educational level is much greater than inequality between groups with different educational levels.

Such variance suggests that inequality in earnings is also the result of other factors that are not easy to identify. Indeed, from our point of view, the problem

is to determine whether they are related to family background and how acceptable according to a notion of equality of opportunity they can be considered. An essential step is to check whether family background has an effect on offspring's earnings over and above the one working via human capital. If it does, then there are good reasons to believe not only that human capital cannot fully explain inequality, but that at least some of the factors generating earnings inequality among equally educated people are related to family background.

6. Beyond human capital: other channels of influence

The goal of this section is to investigate how strong, if any, a "direct" influence of family background on sons' earnings is, i.e. whether background still has a residual influence on earnings after controlling for background-related factors such as education and occupation.

To this aim, two OLS models were estimated, where the dependent variable is the log of annual gross incomes from employment and self-employment and the crucial independent variable is father's occupation. In the first and second models, respectively, son's education and son's education and occupation are added to the covariates. Therefore, once sons' achievements in terms of education and occupation are controlled for, coefficients of parental background dummies measure the residual association "not mediated by children educational attainment" between background and earnings.

In almost all the countries, apart from the two Northern European countries, the additional influence of the family background is not negligible, and, in some cases, it is sizeable indeed (Figure 4). In the UK, for example, the son of a manager earns 26% more than the son of a blue-collar worker even if they have the same level of education. In other countries, the gap is smaller but significant: this is the case of Ireland, Italy, Spain and, to a lesser extent, France and Germany. The gap between white-collar and blue-collar offspring is smaller but still significant in the UK, Italy, Spain and France. However, our estimates suggest that the transmission of earnings inequality occurs mainly throughout the educational channel in Denmark and Finland, given that the direct association between children's earnings and parental background is not significant when children's education is included among the covariates.

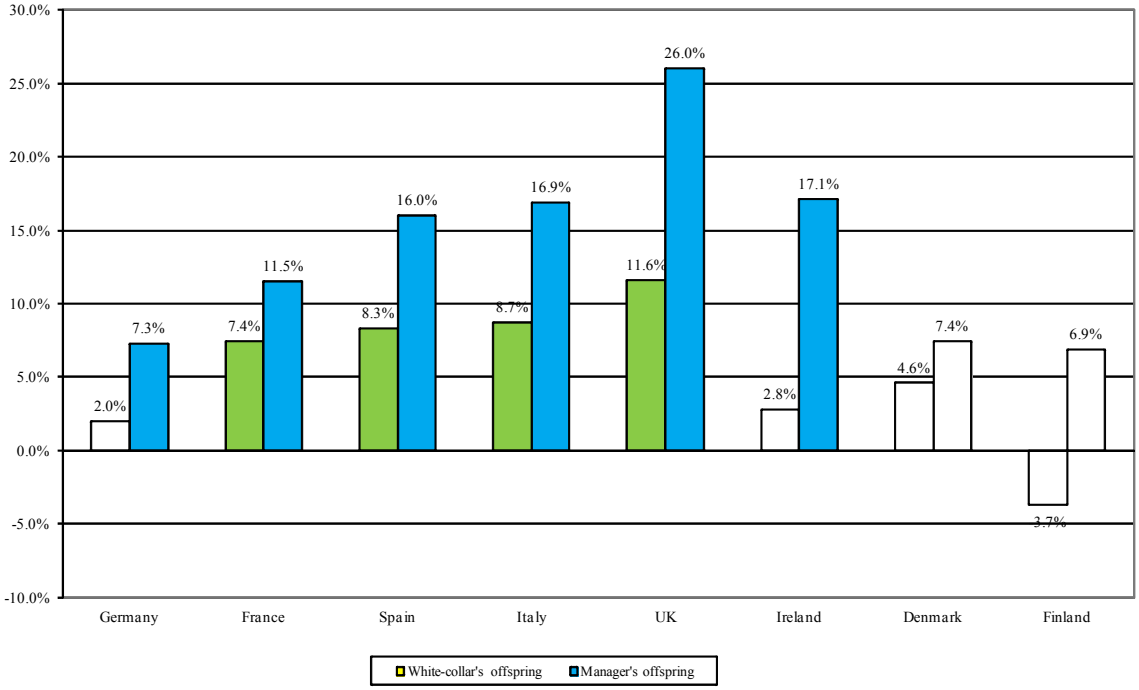

Fig. 4: Annual gross earnings gap by parental occupation (with respect to blue-collar's offspring) controlling for offspring's education.

White bars point out that the estimated coefficient is not significant at the 90% level. Estimated coefficients from a OLS model. Additional controls are gender, age, seniority and dummies about part-time, self-employment, immigrant and subjective health. Offspring aged 35-49. Source: elaborations by Franzini and Raitano (2013) on EU-SILC 2005 data.

One may argue that education is a poor proxy of individual abilities. However, it has to be remarked that EU-SILC records educational attainment using the ISCED classification; neither proxies of the quality of education (e.g. the mark or the attended university) nor the field of study are collected. A residual correlation of family background on earnings, controlling for sons' ISCED level, could then partially mask an association between background and unobservable features of the educational process, which labour market attainments depend on.

If workers are paid according to their effective skills rather than to their mere educational attainment, and if a better parental background allows children to be endowed with better abilities and receive a better quality of education, the crucial factor affecting earnings is not the formal degree, but the occupation that is achieved in the labour market due to the effective skills and abilities indicated by the workers to the employers. As a consequence, the direct effect shown in Figure 4 could be due to the missed consideration of effective individual skills,

enabling those coming from a better background to achieve better occupations.

Therefore, to control for a possible heterogeneity within individuals with the same education, we also controlled for children occupational group, assuming that more able children would be sorted in a better occupation (Figure 5). The estimated coefficients of the association between background and earnings are now not significant also in Germany and France, but remain large and statistically significant in Spain, Italy and the UK, where a large and significant income premium for those coming from a high background compared to those coming from a low background is confirmed. We then find that in some countries there is a residual effect of family background working directly on earnings, not indirectly through education and occupation. Indeed, this direct, residual effect of family background, not mediated by education or occupation, appears as the main cause of cross-country differences in the degree of intergenerational inequality transmission.

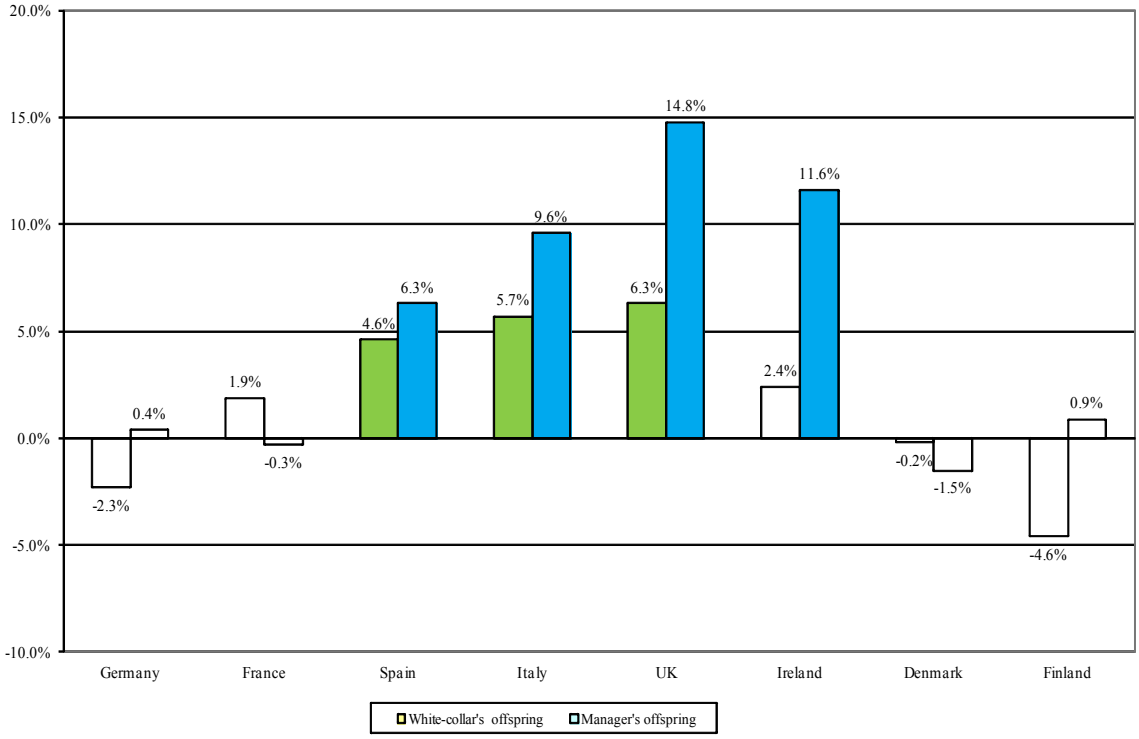

Fig. 5: Annual gross earnings gap by parental occupation (with respect to blue-collar's offspring) controlling for offspring's education and occupation

White bars point out that the estimated coefficient is not significant at the 90% level. Estimated coefficients from a OLS model. Additional controls are gender, age, seniority and dummies about part-time, self-employment, immigrant and subjective health. Offspring aged 35-49. Source: elaborations by Franzini and Raitano (2013) on EU-SILC 2005 data.

What could be the other channels of influence of parents' background over children educational and occupational attainments? This residual influence might be related with both unobservable abilities rewarded by the markets (hard and soft skills) and background-related social ties rewarded in not-perfectly competitive markets (Hudson and Sessions 2011, Raitano and Vona 2018, Franzini, Patriarca and Raitano 2016).

In other terms, a large residual correlation between parents' background and children earnings, controlling for their education and occupation, might either reflect the impact of family background on the unobservable quality of education and on family networks affecting workers' career. The relative importance of these two mechanisms is likely to vary substantially across countries: for instance, in the UK the residual association might be mostly related to heterogeneous school quality and high skill, while in Italy a non-transparent labour market selection (e.g. recommendations) might reinforce the role played by social connections.

Concluding remarks

In this paper we have argued that economic inequality can influence intergenerational mobility through numerous channels and not just the most emphasized one, human capital. The importance of these channels varies from country to country and, in any case, depends on the characteristics of the institutional context. The influence of human capital, in fact, also depends on the characteristics of the education system and on the functioning of the labour market. In particular, the institutions can make social connections relevant and, therefore, can define another and decidedly less meritocratic mechanism of intergenerational transmission of inequality.

The nature of these mechanisms also influences the possibility that social immobility contributes to aggravating inequality and to persisting some of its characteristics. For example, if social connections count in the labour market, they can also play a role in shaping political decisions and these can lead to institutions in which, and increasingly, those connections count. A vicious circle would then be created between inequality and social immobility, with effects that are decidedly worrying for social progress.

The analyses we have shown in this paper leads us to consider the risk that in many advanced countries, something very similar to the vicious circle mentioned above is not irrelevant. Above all, it is worrying that in some

countries there are very high inequalities at the top, difficulties in upward mobility and the importance of social connections. This means that the rich are much richer than the rest of society, which are very closed within them and that social connections are at least partly the basis of their advantages. The danger seems to be that we are travelling away from the democratic community as described by Tocqueville almost two centuries ago:

> In the midst of the continual movement which agitates a democratic community, the tie which unites one generation to another is relaxed or broken; every man readily loses the tract of the ideas of his forefathers or takes no care about them. Nor can men living in this state of society derive their belief from the opinions of the class to which they belong, for, so to speak, there are no longer any classes, or those which still exist are composed of such mobile elements, that their body can never exercise a real control over its members.

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