EARNING LESS THAN YOUR PARENTS AND PEERS?
LESSONS ABOUT INCOME MOBILITY FOR 21ST CENTURY LIBERALISM

Income mobility has always been a fundamental cornerstone of liberalism. The notion that hard work should enable individuals to improve their economic status is a crucial precondition for liberals' strong belief in individual freedom. John Stuart Mill (1848) emphasized the need for an even playing field in the 19th century and even proposed an inheritance tax to prevent wealth from being inherited in a too large extent. Income mobility has also very much been at the centre of the ideological debate between the political left and right. While the progressive left often stresses equality of outcomes, liberals, on the other hand, have traditionally emphasized equality of opportunity.

Another similar debate is whether to focus on mobility in terms of *relative* or *real* standard of living. One could argue that climbing the income ladder *relative* to others might not be politically essential as long as individuals enjoy increasing *real* standard of living. Increasingly,

however, it seems that the western world is getting pessimistic about whether upward mobility in terms of real standard of living still is possible. The Economist noted that "last year just 36 % of Germans, 24 % of Canadians and 9 % of the French thought that the next generation would be better off than their parents." [1]

If we are serious about the pursuit of reinventing liberalism for the 21st century, it is paramount that we get a full understanding of the different forms of income mobility and the mechanisms at play.

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[1] https://www.economist.com/leaders/2018/09/13/a-manifesto-for-renewing-liberalism | For the full list of countries, see: http://www.pewglobal.org/database/indicator/74/survey/19/

DOES INEQUALITY CAUSE INCOME IMMOBILITY?

In a game-changing contribution to the debate about equality of opportunity and outcome, Miles Corak (2012) showed that there is a positive relationship between income inequality and relative intergenerational income *immobility* by plotting them in a graph seen in Figure 1. This was later popularized by denoting it as 'The Great Gatsby Curve'. The name was inspired by the novel with the same name written by F. Scott Fitzgerald, in which one of the characters, 'Jay Gatsby', is a self-made man from poor conditions. [2] Relative intergenerational income *immobility* is the term used for measuring to what degree one's relative income is explained by one's parent's income [3]. In other words, income immobility measures the degree that individuals' relative positions in the income rank are inherited across generations. 'The Great Gatsby Curve' thus suggests that in more unequal countries, relative income positions are to a larger extent inherited across generations.
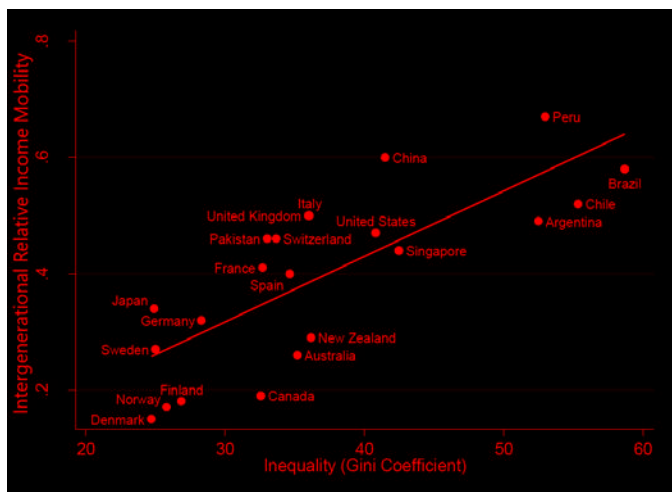
THE GREAT GATSBY CURVE

FIGURE 1 The relationship between intergenerational income immobility shown on the vertical axis and income inequality shown on the horizontal axis. The figure is from Corak (2012).

The discovery of the relationship spurred a debate on the causes of this correlation. [4] Jerrim & Macmillan (2015) suggested and showed that education attainment is more unequal and return to education is higher in unequal countries. Return to education is the monetary compensation earned for investing time and money in education. If access to education is restricted to the wealthier, and the return to education is high, we would expect the relative income positions to be inherited to a larger extent. Inequality in educational attainment is not merely about tuition fees and other costs related to secondary education but just as important is how equal elementary education is. In countries where schools are able to give good quality education to disadvantaged children, we would expect income mobility to be higher. In countries with extensive *residential* segregation causing *school* segregation, or countries where good elementary schools are expensive to attend, we can expect inequality to affect early school differences and subsequently income mobility.

One should however be cautious about correlation and causality in this case. As Gregory Mankiw (2013) points out, 'The Great Gatsby Curve' might just display underlying heterogeneity in a society rather than the actual mechanisms at play. Inequality tends to be higher in larger than smaller cities due to more specialization (Korpi 2008). More specialization is according to the principle of comparative advantages beneficial for everyone but could come at the price of higher inequality. The same argument could presumably be made about larger countries enabling more specialization and thus higher return in the labour market for certain skills. Assuming that children born to wealthier parents have better opportunities to enquire those skills, we will arrive at the correlation shown in 'The Great Gatsby Curve'. Mankiw added to the criticism by noting that the relationship might also be a matter of how the studied

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2 Of course, this name is a bit misleading since as economist Greg Mankiw noted, "Jay Gatsby lived in a time of great inequality and managed to move from being very poor to being very rich."

3 Specifically, the most used measurement for this is 'intergenerational income elasticity'.

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4 To be sure, scholars had already studied the mechanism explaining how inequality affects income mobility before the debate on 'The Great Gatsby Curve' started. Becker's and Tomes' 1979 paper was especially important for this literature.

entities (in this case countries) are defined: "We combine the persistently rich Connecticut with the persistently poor Mississippi, so why not combine Germany with Greece?".[5]

Furthermore, as Setzler (2013) points out, Corak uses *before* taxes and transfers for incomes in the mobility estimates but *after* taxes and transfers when calculating inequality (measured as the Gini coefficient). When adjusting this, it seems that the correlation is statistically too weak for proper scrutiny.

However, regardless of whether the correlation found in the 'The Great Gatsby Curve' is a causal relationship (let alone a statistically significant correlation), we must acknowledge that the general pattern on its own has major implications for the level of income transmitted across generations. To explain this, we will do a numerical exercise on Sweden and the United States. The two represents two ends of the Great Gatsby Curve in the developed world.[6] An explanation for the formula used and how it is derived can be found in the appendix.

In Sweden, the 90th percentile earns 3.3 times the 10th percentile, and the measured intergenerational immobility is 0.27. By plugging in the income difference between the 90th and 10th percentile together with the measured income immobility in the formula for deriving the intergenerational income immobility, we get that a child born into the 90th percentile is expected to (on average) earn 1.6 times a child born in the 10th percentile.[7] In the United States on the other hand, the 90th percentile earns 6.3 times more than the 10th percentile, and the

measured intergenerational relative income immobility is 0.47. A child born in the 90th percentile is then expected to on average earn a whopping 3.5 times a child born in the 10th percentile.

This example showed that since both the income differences between the rich and the poor are higher in the US compared to Sweden, *as well as* the rate in which these differences are being inherited across generations, these factors combines into making the expected average lifetime income for the born rich 3.5 times that of the born poor in US, while only 1.6 in the case of Sweden. Thus, regardless if inequality *causes* immobility, this example shows that the descriptive implications of 'The Great Gatsby Curve' are too big to ignore.

WHAT ABOUT REAL STANDARD OF LIVING?

While the 'The Great Gatsby Curve' was an important contribution to the income mobility literature, it still leaves out an important part of the concept of income mobility. Because income inequality (calculated as the Gini coefficient) and relative income mobility only consider *relative* income measures, we cannot from the Great Gatsby Curve draw any conclusion on mobility in terms of changes in *real standard of living*. This component has increasingly been at the centre of a surging debate on whether today's generation is, in fact, earning less than their parents did at the same age. This debate has taken different forms on each side of the Atlantic. In Europe, it has mostly been linked to the financial crisis of 2008 and the subsequent eurozone crisis which lead to a lost decade of economic stagnation.

In the United States, the debate has instead focused on the stagnant wages since 1970 and a narrative that the promises of the American dream no longer hold up.[8] Chetty et al. (2017) subsequently in a pioneering paper estimated the percent of all individuals born in a year that have a higher lifetime income than their parents, and

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5   https://gregmankiw.blogspot.com/2013/07/some-observations-on-great-gatsby-curve.html

6   If we on the other hand also included developing countries, US is not at the very end of the curve, which could be seen in Figure 1 where several South American countries are included.

7   https://data.oecd.org/inequality/income-inequality.htm
    It should be noted that in this exercise, we used before taxes and transfers for income for the mobility estimates but after taxes and transfers for when calculating the P90P10 ratio. See appendix for how this is calculated.

8   For a detailed discussion on this, see Zingales (2014).

denoted this form of income mobility as *absolute mobility*. So while intergenerational *relative mobility* used in the Great Gatsby Curve only focuses on the likelihood of a child to attain a different *relative position* in the income rank compared to what his or her parents had at the same age, intergenerational *absolute mobility* on the other hand focuses on the likelihood of a child to have a higher *real income* than his or her parents had at the same age. The American data shows that there indeed has been a big decline in the percent of children earning more than their parents. More or less everyone among the baby boomers – the generation born in the aftermath of the Second World War – would end up earning more than their parents did. However, for the generations born in the 60s and later, only a little more than half would earn more than their parents. Why did this happen? And is this merely an American phenomenon?

The main reason for this is that the baby boomers grew up in a time of very fast economic growth. Call it Trente Glorieuses (France), Wirtschaftwunder (Germany), il miracolo economico (Italy) or rekordåren (Sweden) – There is no doubt that growth in the post-war years was very fast. Western Europe had an average growth of over 4 % between 1950 and 1970, which later dropped down to around 1.5 % between 1990–2012 (Piketty 2014).

Thus, what is missing in the debate about the claim that today's generation is earning less than their parents is that the post-war economic boom was not only very different from our current period of lower economic growth, but also from any other time in the history of the western world.

Figure 2 from a yet not published paper by Yonatan Berman (forthcoming) shows how very different this era indeed was in terms of children earning more than their parents. The baby-boomers were not the *last* of many generations earning more than previous generations, but rather the peak of an inverted U-shaped curve representing a remarkable time in history of upward social mobility in the western world.
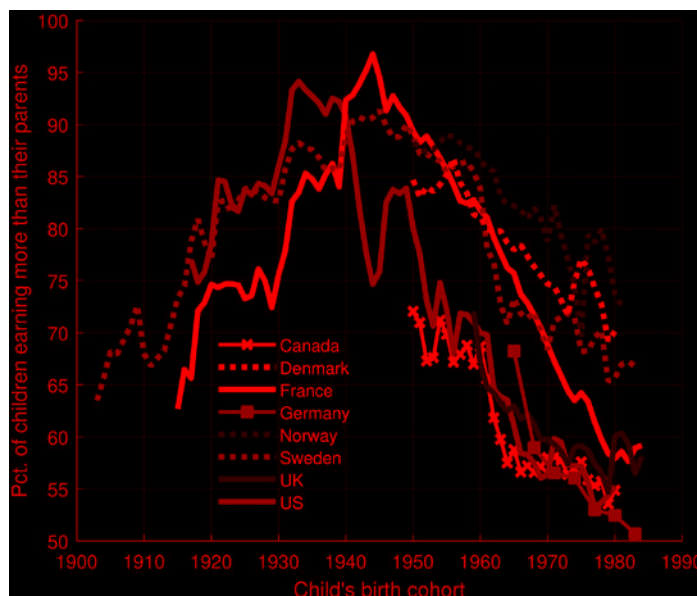

FIGURE 2 Percent of children earning more than their parents per birth year. The Figure is from Berman (fourthcoming).

CONCLUSIONS

One major conclusion from the data on 'The Great Gatsby Curve' and absolute mobility is that we don't seem to have to choose between one or another. The Scandinavian countries in the lower corner of 'The Great Gatsby Curve' (see figure 1) with high relative mobility and low inequality also display the highest rate of absolute mobility (see figure 2). Does this mean that we must fight inequality at any cost and that the progressive left was right all along? Not necessarily.

First, as noted by Mankiw, comparing smaller homogeneous countries with larger heterogenic ones, we will almost by definition find the relationship displayed by the Great Gatsby Curve. While we in this policy brief compared Sweden and the United States, one should find more comparable cases when suggesting policy recommendations.

Second and most important, when we were looking for possible mechanisms explaining the relationship in 'the Great Gatsby Curve', we found that it was not

the inequality itself but rather factors *often associated with inequity* that caused the relationship. Policy should consequently be focused on these factors. For example: Even though segregation is often prevalent in countries with high income inequality, it should not necessarily need to be the case if active measures are being put into place. Furthermore, we found that unequal societies often are characterized by unequal access to educational and higher return to education. The political answer to this should however not be to decrease the return to education. A high return to education means that children from poorer circumstances have a route for upward mobility. Return to education, risk-taking and diligence should be incentives and promoted and not discouraged. Much more important is to increase the equality in educational attainment.

Liberals often *emphasis* the processes in which inequality occurs rather than the *level* of inequality. If inequality is increasing due to innovators like Steve Jobs or due to structural economic changes that underpins across the board growth, but that may benefit one group more than others, this is often regarded as legitimate.[9] On the other hand, more inequality implies a low *relative cost* for the rich to segregate residentially, educationally and occupationally.

Third, in the immediate post world war era, we could rely on growth taking care of making people better off without much political effort. For current generations, however, only about half of the population will be better off than their parents.[10] This does however not mean that they necessarily should have a harder time to get a secure job, good living and be able to think brightly about their future. This should all be feasible even in an era of slower growth as long as we can avoid too large economic imbalances and shocks in for example the labour and housing market. It does however suggest that absolute

income mobility will be more difficult for the state to promote in the 21st than the 20th century.

There is only so much the state can do to level the playing field. Educated parents generally get educated children, and much of what explains the variance in skills and education emergences very early in a child's upbringing. With this in mind, how much are we in the end willing to spend on equal opportunities? Liberals have often been keen on not sacrificing growth to reduce *inequality* at any price, we can assume that the same applies for income mobility. If we already have picked all the low-hanging fruits in promoting income mobility -for example in the form of a good public school for everyone and egalitarian access to university – it is likely that the costs to further increase income mobility is costlier. Thus, reducing inequality and spurring upward mobility in a time of lower growth, without the costs being too high will be at the heart of 21st-century liberalism.

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9   It would for example be legitimate from a Rawlsian framework of justice.

10 As Yonatan Berman notes, it's possible that the sharp decline in the rate of children earning more than their parents partly could explain the rise of populism in the western world.

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APPENDIX

Formula for how the numerical exercise on US and Sweden was calculated:

$$\underbrace{\frac{Income\ rich\ child}{Income\ poor\ child}}_{\substack{Expected\ average\ rich\ poor \\ ratio\ of\ child\ generation}} = \underbrace{\frac{\frac{Income\ rich\ parent}{Income\ poor\ parent}}{\substack{Rich\ poor\ ratio\ of \\ parent\ generation}} - 1}_{\substack{Percentage\ income\ difference\ between \\ rich\ and\ poor\ parent}} \times \underbrace{\beta}_{income\ immobility} + 1$$

In which 'rich' was defined as the 90th percentile and 'poor' as the 10th percentile. 'Parent rich poor ratio' thus denotes the P90/P10 ratio commonly used as inequality measure. How do we derive this formula? In order to answer that we need to start with the standard (OLS) model estimating the intergenerational income immobility:

$$logY^C = \alpha + \beta logY^p + \varepsilon$$

Where Y^C is the child income variable and Y^p is the parent income variable. α is the intercept and ε the error term (Corak 2013). Because both income variables are logged, we can interpret them as elasticities where a percentage difference in income of the parent generation corresponds to an βY^p expected percentage difference in the child generation (assuming the error term does not correlate with Y^C). By subtracting 1 from P90/P10 (rich poor ratio of parent generation), we get percentage difference between P90/P10 (rich and poor) for parents. We then multiply this with the intergenerational income elasticity β to get the expected difference between P90/P10 for the child generation. We add 1 to this in order to again get the P90/P10 ratio. We have this calculated the expected average rich poor ratio of child generation shown in the left hand side of the formula. Plugging the numbers for the US is thus: ((6.3-1)* 0.47)+1=3.491≈3.5 and the formula for Sweden is: ((3.3-1)* 0.27)+1=1.621≈1.6.