

# **An Essay on the Significance of Economic Growth and Inequality on Human Welfare**

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## Preface

*“I write entirely to find out what I’m thinking, what I’m looking at, what I see and what it means.”*

- Joan Didion (1976)

I wish to express my sincere gratitude to my supervisor Associate Professor Mikko Moilanen for the support and advice he has given me during the writing of this master thesis. Thank you for the patience you have showed towards the stubbornness only a graduate student can possess.

I would also like to say a special thanks to my friends. Thank you for expressing your confidence in me and for showing interest in my work. It has meant more to me than you will ever know.

To my family, thank you for always being there for me. “If there ever was a paradise I think I’ve found the place.”

I hope all of you think I have written something worth reading. Nothing would please me more.

## **Abstract**

When the twenty-first century began there had over several decades been developed a dominant political discourse where economic growth was the overarching objective of public policy and with the terms of that discourse reflecting a significantly changed acceptance for the market mechanism as the primary way to achieve that end. Moreover, a significant degree of inequality was not only seen as an inevitable consequence of freer markets but it was also considered acceptable because it would ensure incentives for productivity growth and innovation and thereby fuel economic growth and thus increased well-fare. But these assumptions are now challenged by facts, by empirical evidence, and by a more thoughtful reflection on theory. This discussion paper presents some of these insights and argues that inequality can be detrimental to human welfare in ways that cannot be overcome by simply attaining higher growth rates.

The paper has been written in the document processor called Lyx and all figures that I can take credit for have been created in Microsoft Excel.

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# 1 Introduction

In the final quarter of the twentieth century the idea became increasingly dominant, and with the fall of the Berlin Wall and the dissolution of the Soviet Union it was expressed with increasing confidence, that freer markets were the best way to organize economic activity as it would enable a just distribution of income, maximize material prosperity, and ensure economic freedom. The mainstream consensus asserted that by attaining a superior growth rate all sections of society would benefit – that “a rising tide lifts all boats” – and that insofar inequality was a by-product of the operations of the market it was acceptable, or even required, because the effect of a growing economy far exceeded that of incentive-distorting redistribution. Robert Lucas (2003:20) became the *epitome* of this view when he wrote that “of the tendencies that are harmful to sound economics, the most seductive, and...poisonous, is to focus on the question of distribution... The potential for improving the lives of poor people by finding different ways of distributing current production is *nothing* compared to the apparently limitless potential of increasing production [italics in the original].”

Whereas conservatives in the eighteenth and nineteenth centuries defended inequality by reason of customs and traditions, and thereby defended the social order as a part of the natural order, conservatives in the late twentieth century stressed individual initiative and *laissez-faire* economics, and thereby defended the social order as a part of the spontaneous order of the market system. As a result, the conservative vision was able to find expression in parties of very different character on the right side of the political spectrum which one might say unified, albeit to different degrees in different countries, around the set of liberal economic principles (Viereck, 2017). As Stone (2012:21) writes in his account for the postwar European history, “the process was carried through most radically in Britain under Margaret Thatcher, with her monetarist advisors, but applied also to West Germany, France, Italy, and even the Scandinavian countries, where the long-dominant Social Democrats saw their grip of power weaken.”

*Ipsa facto*, parties belonging to the political left wing had to decide how much of the conservative narrative they accepted and how much of it that was in accord with their egalitarian traditions. The general tendency was a movement towards the center – a “convergence of the parties on the Left” as Sassoon (1998:92) puts it – and an acceptance, or at least a partial acceptance, of economic liberalism. While policy measures and rhetorical devices differed in countries with different historical and cultural background, social democratic parties across Europe adopted a strong trust in that the dynamics of a free market economy would reward ability and talent; and that low-tax policies would finance good public services due to the economic growth it produced<sup>1</sup> (Schmidtke, 2002).

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<sup>1</sup>Bill Clinton is often considered to be the first real populaizer of this idea whereas Tony Blair’s New Labor, Lionel Jospin’s French Socialist Party, and Gerhard Schroder’s red-green coalition exemplify this development in the late 1990s (Schmidtke, 2002).

Thus, the twenty-first century began full of self-confidence in the ultimate triumph of western economic liberalism, or the *End of History* as Fukuyama (1989) suspected it could be. Moreover, as Skidelsky (2010:xv) writes, “many years of sustained growth...seemed to vindicated the contention that free market capitalism had finally «cracked» the economic problem.” But ten years ago history returned when the capitalist suffered a tremendous crisis. What started as a seemingly localized event, turbulence in the sub-prime segment of the US housing market, turned out to trigger a terrible domino effect that ultimately sent the world economy into a recession for the first time since the Second World War (Verick & Islam, 2010). Naturally, voices echoed about the prospects of a new Great Depression.

As it turns out, that prophecy did not turn true; we did not suffer an outcome as serve as in the 1930s. Termin (1991:12) once compared the policymakers during the Great Depression to the eighteenth-century doctors who treated Mozart with mercury: “Not only were they singularity ineffective in curing the economic disease; they also killed the patient.” The policy-responses in 2008 were not perfect but at least they kept the patient alive. Even so, the recovery process has been slow and uneven, and several countries are now approaching their lost decade (OECD, 2017; Blanchard & Summers, 2017). In retrospective, it is clear that there were undoubtedly many failures in the theories and policies applied specifically to the financial system. But the financial liberalization process was carried out according to the growth imperative – freer financial markets would increase investments opportunities and, thereby, boost economic growth. The global economic crisis has therefore raised questions that go beyond those directly raised by the failure of the financial system itself and put the growth imperative into question.

In particular, the idea that economic growth is good because getting richer directly will increase human welfare, and that a significant degree of inequality is acceptable because it will ensure incentives for productivity growth and innovation and, thereby, make the average citizen better off, is now challenged by facts, empirical evidence, and a better reflection on theory. This discussion paper presents some of these insights which strongly supports three propositions:

- In rich-developed countries today there are good reasons to believe that economic growth in some respects are of diminishing importance for human welfare.
- That one reason why the relationship between income and human contentment may erode is that once incomes rise beyond a certain absolute threshold human well-being depends to an increasing extent on relative income and relational goods.
- The distribution of income is not created in a social vacuum and can therefore not be reduced to a question of second-order importance.

From these three propositions follows a conclusion that is sympathetic to the following words from Gray (2010:36): “Like other human freedoms, the freedom embodied in market institutions are



justified inasmuch as they meet human needs. Insofar that they fail to do this they can reasonably well be altered.”

I have organized the rest of the paper in the following way. The next section discussed the nexus between self-assessed life satisfaction and income. Section 3 gives some explanations why economic growth may not deliver increments in human contentment. Section 4 turns to the labor market and the belief in “just deserts.” Inequality and some of its consequences are discussed in section 5, while some final comments are given in section 6.

## 2 Empirical View: Life-Satisfaction and Income

We cannot know why we live but if it is true that “happiness” means living a good life, then I believe many are content to agree with Aristotle and say that they hold happiness to be the end. Economic growth provides a strong moral imperative in this sense because it lifts people out of poverty and the suffering it so often produces. Over time, however, this has evolved into a more general idea stating “more is always better.” The axiomatic assumption has been that with increased production and greater incomes, more consumption choices would be available for people and households and that this would directly increase their well-being. According to Schulze (1999:1), “the increase in material prosperity was probably *the* major characteristic of economic and social development in Western Europe since 1945 [italics in the original].” While it was met with some public skepticism in the 1950s and 1960s, the consumer culture appeared in a new, positive light in the 1970s and 1980s (Trentmann, 2012). To many, increased consumption signaled civilizational progress. A developed country had fashion, a developing country did not (as noted in Braudel, 1981:312).

But even as this thesis has gained adherents, it has become increasingly uncertain whether greater incomes *necessarily* will increase human well-being once income levels approach or surpass those levels seen in already-rich economies. The empirical case against the growth imperative comes from a set of surveys asking people how happy or how satisfied they are with their life, and they suggest that the relationship between income and life-satisfaction is far more complex than the growth narrative asserts it to be. Let me review<sup>2</sup>.

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<sup>2</sup>I would like to note that any discussion about the relationship between subjective well-being and income seem to raise two important questions: (i) is self-sassed life satisfaction (or happiness) an acceptable objective and (ii) with what precision can it be measured. On the first issue, I agree with Sen (1987:8) in that we cannot detach the results from such surveys from the reality of the ordinary life of citizens in a given country. If, for example, 99 percent of the population in a country are made happier with the ethnic cleansing of the final percent minority, it seems clear to me that we **cannot** accept that as a good result. However, it would also be problematic and leap to the opposite conclusion and say that how people experience their lives does not matter at all. For one reason, this would imply that what people *actually* feel is irrelevant and the only thing relevant is what people *should* feel on the basis of some criteria set by others. Suppose, for example, that we rightfully decide that the only criteria of relevance is adequate housing. Then we also need to decide exactly what adequate means in this setting which would be a far more difficult thing to agree upon than adequate housing as an objective criteria in the first place. Consequently, we can consider self-reported happiness

If we compare self-assessed life-satisfaction scores within a country at a given point in time, we see that richer people tend, on average, to be more satisfied with their lives than poorer people in the same country. Blanchflower & Oswald's (2004) study of the United States, for example, showed that when happiness scores are regressed against household income, the latter is statistically significant and enters positively into the equation and that this is true also when other factors, such as marriage status and gender, are controlled for. In the same manner, Di Tella, MacCulloch & Oswald (2003:812) concluded in their study of twelve European countries that "having family income classified within a higher income quartile increases the likelihood that a respondent says he or she is satisfied with life." Sacks, Stevenson & Wolfers (2010) and Stevenson & Wolfers (2013) are two more recent contributions that largely seem to confirm the positive and strong within-country relationship. In western societies, it does not seem to be linear, however, but rather somewhat concave. A simple visualization of this empirical regularity is provided in figure 1, which plots life-satisfaction against income quintiles for a few rich European countries (a similar graph for the United States can be found in Kahneman & Deaton, 2010).

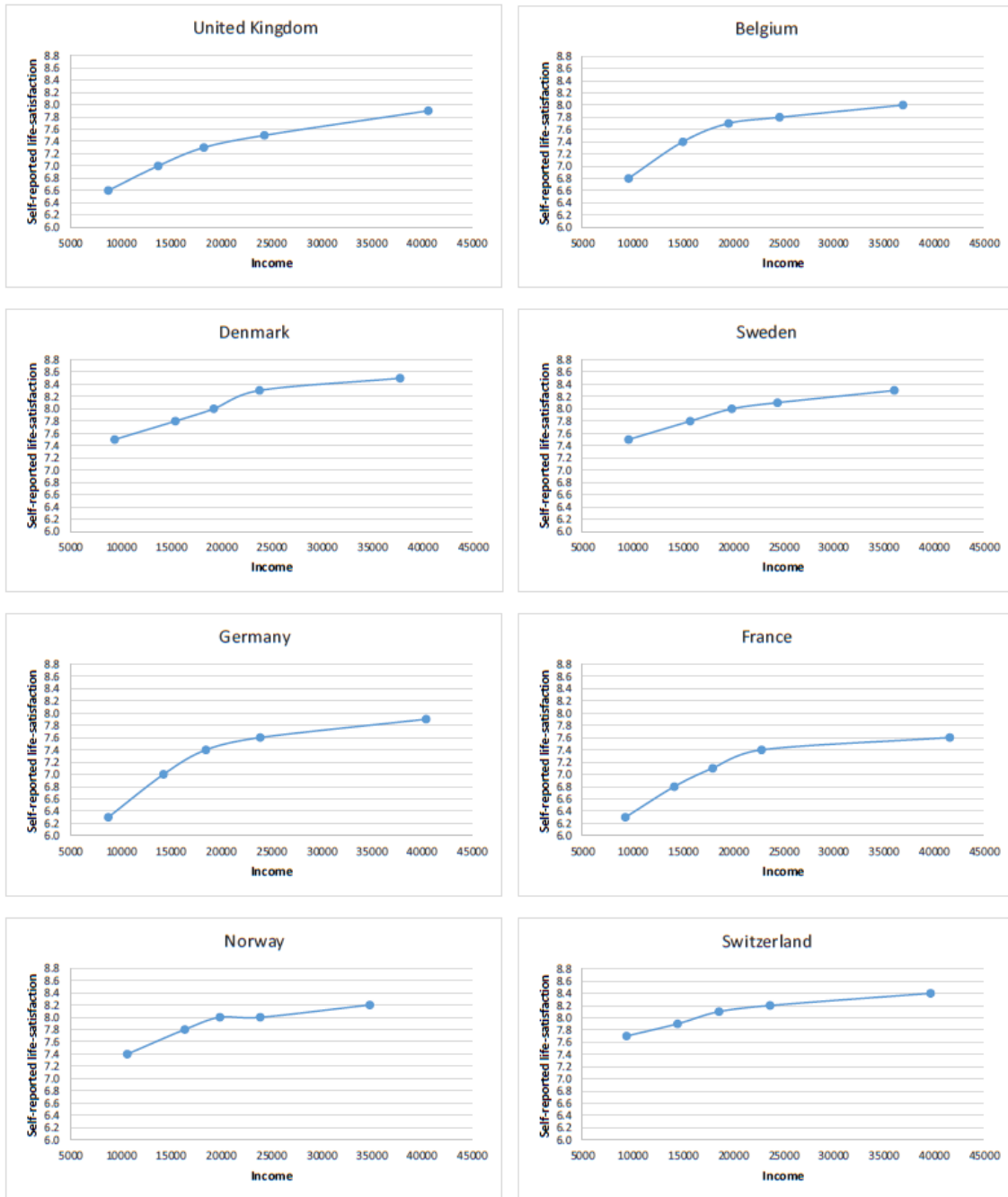
Likewise, cross-country comparisons find that people in richer countries tend, on average, to have higher life-satisfaction scores than people in poorer countries, and that the differences between low-income countries and high-income countries appear substantial (Inglehart *et al.*, 2008; Deaton, 2008; Sacks, Stevenson & Wolfers, 2010; Stevenson & Wolfers, 2013). Figure 2 shows this by plotting average life-satisfaction scores in 140 countries against income per head (as measured by GDP *per capita*). The dotted curve in the graph depicts the power regression line for the relationship. Looking at figure 2, it seems like income is strongly linked with life satisfaction at lower income levels but once a certain modest absolute threshold is reached the association disappears and levels off. According to Layard (2003:17, 2005:32-33), once a country has between \$15,000 and \$20,000 per head, its level of measured well-being appears to be independent of its income per head.

It seems intuitively obvious that those countries that have broken out of the Malthusian trap and today obtained middle-income or high-income status should have experienced significant increases in human-welfare. In his account for the facts of economic growth, Jones (2016:7) notes that "for thousands and thousands of years, life was, in the evocative language of Thomas Hobbes, «nasty, brutish, and short.»" To be sure, there were those temporarily periods in which techno-

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as a relevant indicator rather than an objective *per se*. On the second issue, survey-based measures will undoubtedly contain noise but researchers have, among other things, found that subjective well-being questions correlates with a variety of relevant measures (Kahneman & Krueger, 2006; Pavot, 2008); that respondents tend to translate verbal labels into a rather uniform numerical scale over individuals (van Praag, 1991; Ferrer-i-Carbonell & Fritjers, 2004); and that differences in languages and cultures does not seem to be a large obstacle in cross-country comparisons (Sandvik, Diener & Seidlitz, 1993; Diener & Lucas, 1999; Scollon *et al.*, 2004). MacKerron (2012) gives a useful review on the methodology. In sum, there are good reasons to express some skepticism towards international country rankings, as Høyland, Moene & Willumsen (2012) convincingly argue, but keeping *Goodhart's law* in mind I do not believe that these two problems are fatal to the discussion I provide here.

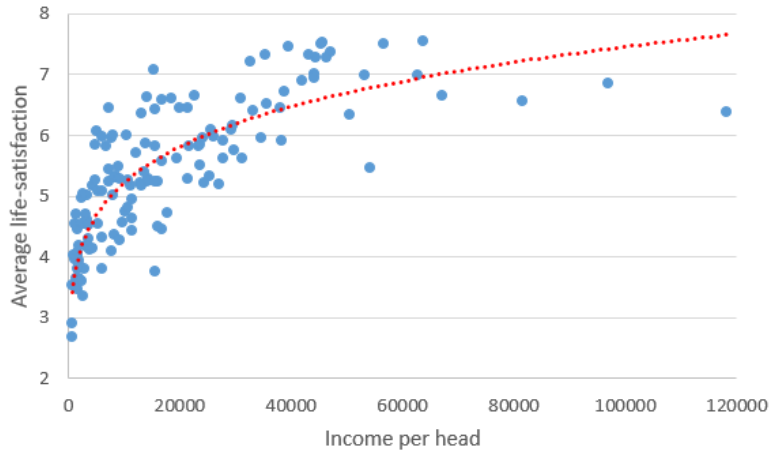
Figure 1: Self-reported life-satisfaction across the income distribution in eight European countries, 2013



*Note:* For each country, there is a line connecting five points. Each coordinate shows the average income within an income quintile versus the average self-reported life satisfaction of people in that income quintile. Life satisfaction is measured on an 11-point scale which ranges from 0 (“not satisfied at all”) to 10 (“fully satisfied”). Income refers to equivalised household income and is expressed in Purchasing power standard (PPS) to eliminate differences in price levels between countries.

*Source:* Eurostat (2017) (available at <http://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database> (accessed 31 October 2017))

Figure 2: Comparison of income and life-satisfaction in various countries



*Note:* Each coordinate show average income within a country and the average life-satisfaction score of the people within that country. Life satisfaction is measured by the Cantril Ladder, ranging from 0 to 10 where 10 is the highest possible life satisfaction, using surveys covering the years 2014 to 2016. The horizontal axis shows GDP per capita, PPP (constant 2011 international dollars) in 2016. A power regression line is plotted ( $r = 0.84$ ).

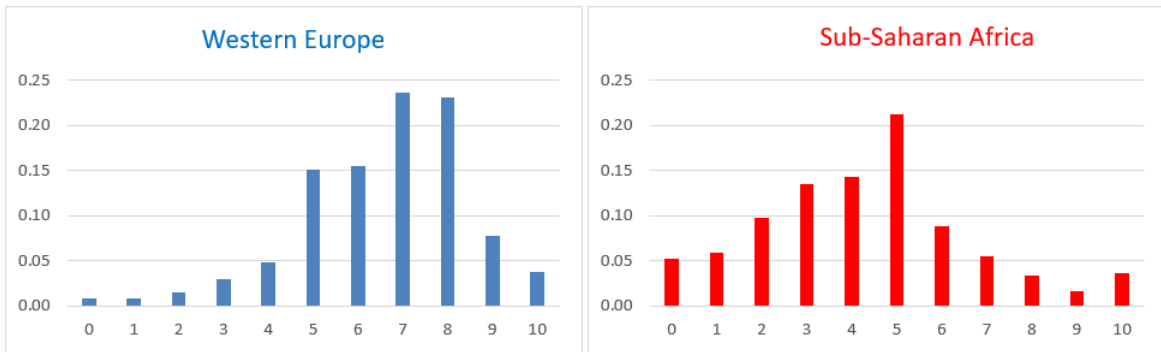
*Source:* Life satisfaction data is from Helliwell, Layard & Sachs (2017) (available at <http://worldhappiness.report/> (accessed 31 October 2017)). Income data is from the the World Bank’s (2017a) World Development Indicators (available at <http://databank.worldbank.org/data/> (accessed 31 October 2017)).

logical improvements (e.g. windmills and new irrigation techniques) allowed living standards to surge a head, but, in the Malthusian world, these moments of prosperity could not be sustained because these improvements occurred at irregular intervals and, in the end, resulted mainly in a larger population. Clark (2007:32) writes it more elegantly: “in the preindustrial world, sporadic technological advance produced people, not wealth.” Ashraf & Galor (2011:2003), who have studied the Malthusian economy theoretically and confirmed the theoretical predictions empirically for the period 1-1500CE<sup>3</sup>, is therefore quite right in commenting that “the transition from an epoch of stagnation to an era of sustained economic growth has...[been] one of the most remarkable transformations in the course of human history.” People in rich countries today are more educated, wealthier, healthier, and they live longer than their ancestors and that should have had profound

<sup>3</sup>Thomas Malthus made a gloomy prediction but is – somewhat ironically – an early “happiness economist.” Here is his reading of Adam Smith:

*“The professed object of Dr Adam Smith’s inquiry is the nature and causes of the wealth of nations. There is another inquiry, however, perhaps still more interesting, which he occasionally mixes with it; I mean an inquiry into the causes which affect the happiness of nations or the happiness and comfort of the lower orders of society, which is the most numerous class in every nation. I am sufficiently aware of the near connection of these two subjects, and that the causes which tend to increase the wealth of a state, tend also, generally speaking, to increase the happiness of the lower classes of the people. But perhaps Dr Adam Smith has considered these two inquiries as still more nearly connected than they rally are; at least, he has not stopped to take notice of those instances where the wealth of a society may increase (according to his definition of wealth) without having any tendency to increase the comforts of the labouring part of it (Malthus, 1798: Ch.16).”*

Figure 3: Distribution of life-satisfaction scores in Western Europe and sub-Saharan Africa



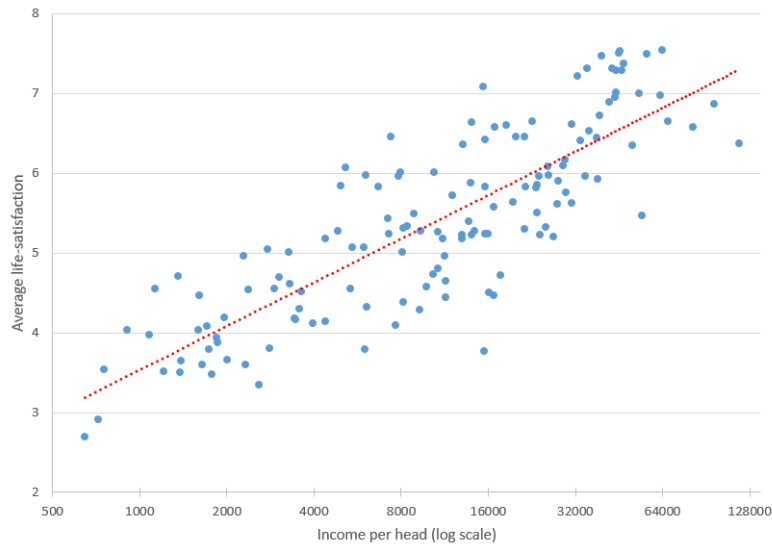
*Note:* Life satisfaction is measured by the Cantril ladder, ranging from 0 to 10 (with 10 representing the highest possible score), using surveys from 2014-2016. Each bar show the proportion of people reporting that value in each region.  
*Source:* Helliwell, Layard & Sachs (2017) (available at <http://worldhappiness.report/> (accessed 31 October 2017)).

effects on our self-perceived life satisfaction. To the best we can tell, this is also the case. As figure 3 shows, when the distribution of life-satisfaction scores in Western Europe is compared with the distribution in sub-Saharan Africa, the former stochastically dominates the latter. If we also take into account the latest estimates from the World Bank (2017b), that over two billion people in the world live on less than \$3.2 a day, primarily in South Asia and sub-Saharan Africa, it seems clear that economic growth still bears a strong moral imperative, and should be given further priority, in low-income societies.

However, my aim is not to discuss how to achieve economic growth in these societies, although discussions such as those in Banerjee & Duflo (2011) are important to have, but to consider the role of economic growth in those countries that already have succeeded in making the struggle of survival, in the absolute sense of the word, a footnote in the lives of the majority of their inhabitants. And if we take plots like those in figure 2 at face value, it looks like average well-being delinks from average income at some critical level of GDP *per capita*. This view is challenged, however, by Deaton (2008) and Stevenson & Wolfers (2008, 2013), among others. In brief, they show that the cross-country relationship is roughly a linear-log relationship and through a variety of tests and data sets they are not able to conclude that the well-being–income link among poor nations is significantly different from that among rich countries (in figure 4 I have reproduced figure 2 with GDP *per capita* on a log scale). In this interpretation, it is still true that an additional dollar of income gives a greater incremental increase in measured life-satisfaction for the poor than for the rich, but equal percentage increases in income will give equal increases in the same measure. This echoes *Weber's law* as it implies, for example, that rising incomes from \$40,000 to \$60,000 is as important to our contentment with life as an increase from \$10,000 to \$15,000.

General conclusions with reference to graphs such as those in figure 2 and 4 can be misleading, however, as they describe differences between countries at a given point in time and say nothing

Figure 4: Income versus life satisfaction in various countries



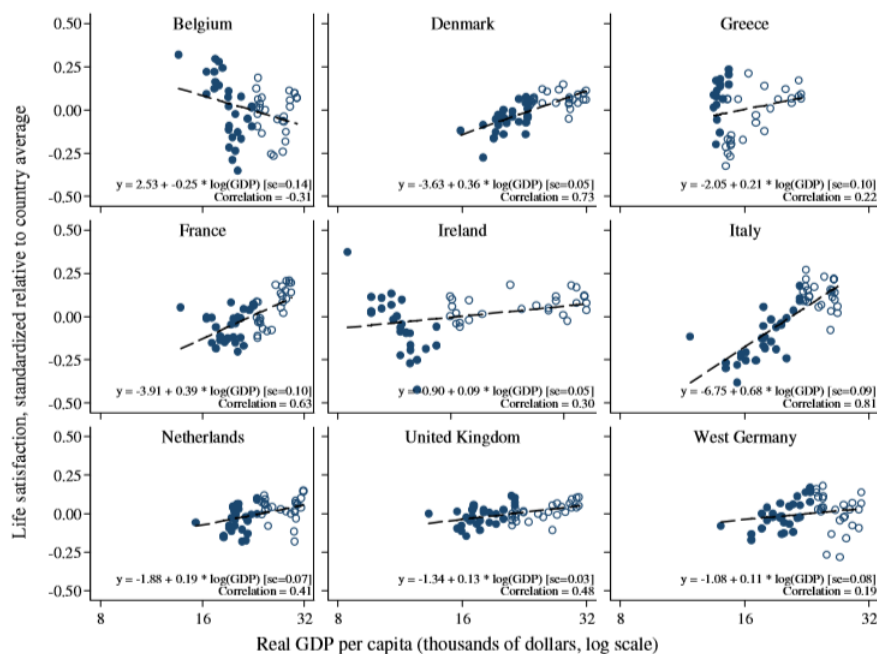
*Note:* For a description of the underlying data, see the note in figure 2. GDP *per capita* is here plotted on a log scale and a linear-log regression line is included ( $r = 0.83$ ).

*Source:* Life satisfaction data is from Helliwell, Layard & Sachs (2017) (available at <http://worldhappiness.report/> (accessed 31 October 2017)). Income data is from the the World Bank’s (2017a) World Development Indicators (available at <http://databank.worldbank.org/data/> (accessed 31 October 2017)).

about how a given country has fared over time. In Easterlin’s (1974) seminal work, he found a negligible change in happiness scores in the United States over the period 1946-1970. In an updated paper (Easterlin, 1995), where the analysis also included nine European countries and Japan, he concluded similarly that the overall pattern was one of little or no change in the share of people responding “very happy” or “very satisfied” with their life despite some substantial increases in real incomes over the preceding decades. Frey & Stutzer’s (2002:413) review appeared to confirm this pattern in western countries, noting that “the development of income and happiness diverges like open scissors.” But recent studies have called this finding into question. Two important contributions are Sacks, Stevenson & Wolfers (2010) and Clark, Fleche & Senik (2016). Sacks, Stevenson & Wolfers (2010) use the Eurobarometer survey – which one would expect to give us some of the best empirical evidence since it has used consistent questions to survey relatively homogeneous countries almost continuously since 1973 – and find a positive relationship between life satisfaction and growth in eight out of the nine countries for which longer time-series are available. Six of the nine slopes are statistically significantly positive (see figure 5). When the authors investigate a cross-country plot of decadal differences in life satisfaction and income, they find a positive, but weak, relationship. Meanwhile, Clark, Fleche & Senik (2016) investigate the distribution of life-satisfaction scores, using the standard deviation<sup>4</sup>, and find that within countries exhibiting

<sup>4</sup>The authors obtain the same result if they use the coefficient of variation (CV). However, as they note, if higher GDP *per capita* leads, on average, to higher life-satisfaction scores, then correlation between GDP *per capita* and the

Figure 5: Changes in life satisfaction and economic growth in Europe



*Note:* Dark circles denote data from 1973 to 1989; open circles denote data from 1990 to 2002. The Eurobarometer survey uses a four-point scale, and the authors have converted the life-satisfaction scores into normalized variables. The dashed lines show the fitted regression equations and the reported standard errors account for first-order autocorrelation (Newey-West standard errors). GDP *per capita* is expressed at PPP (constant 2000 international dollars). Further details can be found in Sacks, Stevenson & Wolfers (2010).

*Source:* The figure is printed on page *Figures-6* in the appendix in Sacks, Stevenson & Wolfers (2010).

uninterrupted real GDP growth, “happiness inequality” generally goes down (and in countries experiencing falling real GDP the trend is reversed). In their sample, the exceptions are Germany and the United States, where the evidence suggest a U-shaped relationship.

So where does all of this leave us? It seems clear that the relationship between life-satisfaction and income in high-income countries is complex and, in some respects, of an uncertain nature. It is, for example, noticeable in figure 5 that it appears like Denmark, France, and Italy have been much more able to translate economic growth into increased well-being than the United Kingdom and Netherlands. And this idea, that some societies do a better job in maximizing the average well-being of their inhabitants than others, is not at odds with figure 2 and 4. It is now a natural question to ask whether there is some variable  $x$  that that can increase both well-being and economic growth independently, and in section 5 I will argue that inequality, or less inequality to be more precise, is one such variable. Thus, the empirical evidence suggest, *in nuce*, that *how* the economy grows is at least as important as *how much* the economy grows. In other words, the evidence is not consistent with the assumption that economic growth will directly increase human welfare and

CV of life-satisfaction will be negative by construction.

public policies can, therefore, not be judged only with reference to their contribution to the absolute level of growth.

### 3 Explanations: Treadmills, Relative Income, and Relational Goods

The question that presents itself is why the relationship between average income growth and human well-being erodes as a society becomes richer. What is it with the nature of consumption in rich economies that makes absolute income a less important driver for human welfare?

One possible explanation is based on the general idea of adaption – a pleasant smell usually becomes less intense, and thereby less pleasurable, with continued exposure – and draws support from psychological studies finding that people tend to adapt to major life events (Diener, Lucas & Scollon, 2006). According to it, what Brickman & Campbell (1971) coined the *hedonic treadmill* is operating with respect to economic goods. We constantly run towards improvements in material conditions but remain at the same place because the belt moves at the same pace in the opposite direction under our feet. To illustrate, consider an individual at the lower income level who buys a television with standard specifications and, thereby, obtains a level of well-being equal to  $a > 0$ . When her income increases she is able to purchase a newer television with better specifications and for a few months her well-being level is  $(a + b)$  with  $b > 0$ . After those months, however, it has fallen to  $(a + b - c)$  where  $c \in (0, b]$  is the adaption effect. In the case of full adaption,  $c$  equals  $b$  and her level of well-being will be equal to that before the purchase of the upgraded TV. In other words, in the early months when we are watching our new TV we are constantly thinking about its novelty, and we enjoy the increased resolution, the brighter colors, and other improvements; eventually, we watch our favorite football team play a match and no longer think about the better quality – the new TV just fulfills the same need as the old one<sup>5</sup>.

A second explanation, which normally is taken together with the theory of adaption, is that of aspirations. The Stoic philosopher Seneca (2007:189) wrote a long time ago that, “excessive prosperity does indeed create greed in men, and never are desires so well controlled that they vanish once satisfied.” Daniel Kahneman (e.g. Kahneman *et al.*, 2004a) calls this the *aspiration treadmill*.

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<sup>5</sup>Strictly speaking, pleasure is by definition short-lived. It is directly connected with a desirable experience or event. For example, the pleasure of coming home and relax after a busy day at work refers to that particular experience of getting home from work and relax. Human welfare or well-being, on the other hand, as I use the terms here, refer to a condition that for different reasons can change to the better or to the worse but that change is not defined by normal variations in everyday experiences. Thus, we can interpret  $a$  as the level of well-being achieved by owning a television as it is the vehicle that allows an individual to get the pleasure from watching her favorite team play. And if  $b > c$  we can take this to mean that the new television allows her to enjoy some pleasures that the old television could not deliver. This follows the distinction in Scitovsky (1976) in the sense that we get accustomed to *comforts* but not *pleasures*. The mathematical representation has been developed from Bruni & Porta (2016).



As an individual's income rises, and her material conditions improve, so does her aspirations about the ideal material conditions. The following excerpt from a 2006 article in *The New York Times* is enlightening: “«...when you get a Boxster you wish you had a 911,» he said, referring to a much more expensive Porsche. «And you know what people who have 911s wish they had? They wish they had a Ferrari (Hafner, 2006).»”

It is interesting to note that in Sacks, Stevenson & Wolfers's (2010:21) analysis long-run changes in income appear to have a smaller effect on life satisfaction than short-run changes (see figure 7 in SSW). This is consistent with the above hypotheses that individuals adapt to new circumstances and that their aspirations change so that the welfare gains from increased income are gradually absorbed. However, as Deaton (2008:70) writes “the «best possible life for you» is a shifting standard that will move upwards with rising living standards.” In other words, in an economy capable of producing a flow of new products and services, or opportunities for short, people's understanding of what “the best possible life” represents can change. But this does not necessarily mean that people become less satisfied with what they have but could instead mean that they change their interpretation of what each step on the life-satisfaction ladder means. Clark, Fleche & Senik's (2016) finding that growth reduces the share of both the “very unhappy” and the “perfectly happy” can, thus, be taken to mean that those on the top of the income spectrum “rescale” more than those on the bottom because it is the wealthy that experience the greatest expansion of opportunities. Even so, it does seem reasonable to assume that continued expenditures on some goods, such as newer television sets and newer mobile phones, not is very likely to bring further improvements in human welfare since the utilitarian criteria, as a form for satiation point, have largely been met.

A third explanation why economic growth not necessarily will increase human contentment is that once incomes rise beyond a certain absolute threshold, and basic needs are met, a person's well-being depends to an increasing extent on the income of others and on that person's income relative to that of others. Three factors make up this point:

- Thorstein Veblen argued, in his book *The Theory of the Leisure Class* (1899), that individuals are status seeking, and that status is signaled or enhanced by visual forms of consumption and material displays of wealth: “In order to gain and to hold the esteem of men, wealth must be put in evidence, for esteem is awarded only on evidence (Veblen, 1899:24).” In this tradition, Pierre Bourdieu (e.g. Bourdieu, 1984) argued that those on the higher end of the social hierarchy tend to acquire tastes that distinguish them from those on the lower end, and in practice the upper classes have the power to determine what constitutes “taste” within a society. Fred Hirsch (1977) later emphasized that since an individual's relative position in society matters, “having more” does not automatically translate into “doing better” if there are many people ahead of that individual in the economic hierarchy. In any case, a good bought for status confer benefits to those who have it only when others are not in possession

of it. Thus, the richer an individual becomes, the more she can spend on goods that portray style, fashion, and brand to mark her position in the social crowd. But the richer other people become, the more intense the resulting status competition will be. It is hard to imagine how increased expenditures on such goods could be expected to deliver sustained advancements in well being. In fact, some would argue to the contrary, that it has contributed more to anxiety than to welfare.

Faced with this argument it is tempting to argue that we should not care about status. Harry Frankfurt started his paper *Equality as a Moral Ideal* (1987) with the following joke:

First man: “How are your children?”

Second man: “Compared to what?”

This point is likely to contain a great deal of truth, and if you do not care about what brand your clothes come from or if you do not consider it important to acquire the latest gadget before everyone else, then it does not have to apply. But many people do care and in many circumstances it could be more about fitting in. Adam Smith (1776, Book V: Ch. II) wrote it nicely: “Custom...has rendered leather shoes a necessary of life in England. The poorest creditable person of either sex would be ashamed to appear in public without them. In Scotland, custom has rendered them as necessary of life to the lowest order of men; but not to the same order of women, who may, without any discredit, walk about bare-footed.” Put differently, context matters more for evaluation in some domains than in others. To borrow an example from Frank (2012:61), the average American wedding costs almost three times as much today as it did in 1980 (in real terms). But that does not necessarily imply that people want to lord their wedding over others but could rather mean that the bar of what defines a special wedding has been raised to this point. And in this case the question becomes whether couples today are more satisfied with their wedding than couples forty years ago<sup>6</sup>?

- But relative income does not only matter for relative status. The willingness to pay for a good inevitably depends on the ability to pay. As Samuelson (1948:38) wrote in his famous textbook, “John D. Rockefeller’s dog may receive the milk that a poor child needs to avoid rickets. Why? Because supply and demand are working badly? No. Because they are doing what they are designed to do, putting goods in the hands of those who can pay the most.” As people get richer it is not milk they will compete for, but, as Hirsch (1977) realized,

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<sup>6</sup>That context matters more for evaluation in some domains than in others can also be illustrated with Karl Marx’s (1849:84) thought experiment on the hut and the palace:

*“A house may be large or small; as long as the surrounding houses are equally small it satisfies all social demands for a dwelling. But let a palace arise beside the little house, and it shrinks from a little house to a hut...the occupant of the relatively small house will feel more and more uncomfortable, dissatisfied and cramped within its four walls.”*

things that are location-specific and inherently short in supply. The ability to buy a house in a good neighborhood with good schools, or to stay at a hotel in the core of a big city rather than in periphery, depends entirely on your income relative to others, not on your absolute income. This is most vividly illustrated with recent developments in Spain where locals, in popular tourist destinations, have found it increasingly difficult to afford a place to live due to foreigners pushing up rents and housing prices. Thus, rents and housing prices in these places do not only reflect that relative income within a society matters, but also that the relevant measure of relative income is, to a significant degree, internationally defined<sup>7</sup>. Likewise, the ability for Germans to afford more pleasant hotels in, say, Paris is determined by their income relative to that of other Europeans who want to visit the French capital.

- The third factor, meanwhile, is related to the fact that congestion effects are almost inherent in the development process. Hirsch (1977) recognized this mechanism, but the German philosopher Hans Magnus Enzensberger identified it earlier in *Eine Theorie des Tourismus* [A Theory of Tourism] (1958): “Today’s mass tourism... is propelled by romantic notions of the far away, the pristine, and the untouched, and by the desire to escape a social reality that is increasingly experienced as confining and suffocating. Paradoxically, the desire falls victim to its own inherent dialectics: the yearning to be free from society becomes harnessed by the very society it seeks to escape; the search for the authentic inevitably leads to its destruction (Germünden, 1996:113).” In other words, as societies get richer, more people can afford a trip to the ski slope, to the beach, or to other natural attractions and as these places get more crowded it degrades the very experience that people seek to enjoy there. Moreover, a recent article in *The New York Times* (Horowitz, 2017) also describes how the large inflow of tourists to Venice has made the city a less attractive place for locals to reside. Røsvik (2017) describes similar trends in Lofoten but mentions additionally that the infrastructure is not equipped to handle the tourist pressure with the consequence of adverse effects on human safety. Hence, rising incomes bring about challenges that, if not managed carefully, can undermine the very things economic growth is supposed to promote.

Together, the first two factors are consistent with the finding that richer people within any given

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<sup>7</sup>That is not to say that other factors, such as speculation and *nimbyism* (Not In My Backyard), do not play a role in pushing up housing prices, but when the supply of pleasant houses is restricted (e.g. there can only be one penthouse apartment in each building) you need to win the relative-income competition to acquire a pleasant house. When rich foreigners enter the market, the income and wealth distribution of the pool of potential buyers widens, and the price of the most pleasant houses or apartments are bid up. This, in turn, is likely to push up all house prices because at each level of the “pleasant-house scale” there is now a wider distribution of incomes and wealth among the potential buyers. With respect to recent trends in London, Green & Shaheen (2014:4) writes “richer people can «consume» more housing. More recently this problem has been compounded through the wealthy global elite buying prime property in central London and leaving them unoccupied. Within a supply constrained system this means that there is less to go around among others. This squeeze inevitably puts increased upward pressure on the price of housing.”

country are, on average, more satisfied with their lives than poorer people within the same country, and perfectly in accord with the observation from time-series data that average income growth does not necessarily go together with an increase in average life-satisfaction. In addition, the second factor implies that it logically should be some correlation among rich countries in cross-country comparisons, and this is precisely what the studies of Deaton (2008) and Stevenson & Wolfers (2008, 2013) suggest.

The final explanation on this list comes from the realm of theory concerned with *relational goods*. These are non-material goods that depend upon interactions among people and which, therefore, cannot be acquired by an isolated individual (Uhlaner, 1989). In other words, it is a relationship or an interaction that constitute the nature of the relational good (Bruni, 2010). In the economist's jargon, it is not the utility I obtain from eating a chocolate cake, but the increase in utility achieved if we both consume it together. As relational goods are highly intangible by nature, they are very difficult to measure. But the positive effect of interpersonal relationships on subjective well-being has been amply documented (see e.g. Bruni & Porta, 2016). Kahneman *et al.* (2004b), for instance, used the the *Day Reconstruction Method* to survey 909 women in Texas and found that most activities carried out during a day (such as exercising, preparing food, and eating) are enjoyed more in the company of other people (such as friends and relatives). And Bruni & Stanca (2008) used data from the World Value Survey (containing more than 260,000 observations from 80 countries) and found a strong correlation between the time that a person spends with friends, family, or volunteer work and self-evaluated life satisfaction, a correlation that holds even when many other variables are controlled for.

However, the new technology made available with higher incomes appears to be a double-edged sword. Bruni & Stanca's (2008) research show that spending more time watching television reduces the time spend with friends, colleagues and people from church. You Tube uses algorithms that recommend new videos to keep people on their sites longer. Facebook, Twitter, and Instagram use a continuous scroll to encourage their users to keep searching for an update worth looking for. Reddit contains an almost unlimited number of discussions its users can dive into. I do not know how much activities in the latter domains crowd out consumption of relational goods but taken together I will regard it as a reasonable hypothesis that they do. For research on internet addiction has shown that users can become addicted to it (Ng & Wiemer-Hastings, 2005). And this final remark is likely to have consequences also in terms of economic costs, and for young people on their performance in schools.

So these are in total six different factors that can explain why economic growth may not deliver increments in human contentment. The treadmill effects imply that there could be a tendency for people to spend their income on the wrong things – that people fail to take into account the effects of adaptions and aspirations. Status competition and congestion effects imply that there is excessive

consumption. The importance of relative income to access location-specific things can also imply some negative effects. The final explanation suggest the possibility for individuals to consume sub-optimal levels of relational goods. Thus, they all imply some form of inefficiency which cannot be swept away with economic growth.

## 4 Labor Markets, Success, and the Belief in “Just Deserts”

I have just discussed that the way people spend their time and money is likely to change as a result of higher incomes, and that this can explain the changing nature of the relationship between income and well-being. Here I turn to the labor market, and the way people earn their income, to consider two instrumental arguments in defense of inequality. The first is production oriented and states that in a competitive economy individuals will receive a remuneration congruent with their contribution. The second is incentive oriented and spells that the market mechanism ensures incentives for the development of those skills and talents that society values relatively highly.

In this respect, the Aristotelian corollary that it is just as unjust to treat unequals equally as to treat equals unequally seems to have much resonance to people. It is generally accepted that some are paid more if the criterion of discrimination is justifiable. For example, if someone work longer hours, if someone have a riskier job, or if someone have to go through extensive training to obtain the skills necessary to perform certain tasks. As Adam Smith (1776, Book I: Ch. 10) wrote in his *magnum opus*, “A man educated at the expence of much labour and time to any of those employments which require extraordinary dexterity and skill may be compared to one of those expensive machines. The work which he learns to perform, it must be expected, over and above the usual wages of common labour, will replace to him the whole expence of his education, with at least the ordinary profits of an equally valuable capital.” In other words, there is a normative appeal to the idea that a just distribution of income is one where wages of workers reflect their contribution to society. And, as Stiglitz (2016:140) writes, “some of those who have made large amounts of money have contributed greatly to our society.” But there are several factors at work that make this only a part of the story.

First, the aforementioned arguments ignores the role of luck in determining outcomes. Leo Tolstoy opened his novel *Anna Karenina* (1877) with the following famous sentence: “Happy families are all alike; every unhappy family is unhappy in its own way.” According to the Anna Karenina principle, popularized by Diamond (1997), one must do well in each and every one of a range of criteria in order to succeed, but it only takes a break down in one criterion to fail – there are more ways to fail than to succeed. Luck, or at least the absence of bad luck, certainly has a part in the play. Even Friedrich Hayek, the great hero of the Mont Pelerin Society, was aware of this. In *Law, Legislation and Liberty* (1976:117) he wrote, “The element of luck is as inseparable from

the operation of the market as the element of skill.” This is perfectly illustrated in Frank’s (2012, 144-145) recount of Bill Gates’ success story. Bill Gates was, for example, able to go to a high school with a computer lab, which was an *anomaly* at the time, and, after founding Microsoft with his friend Paul Allen, he initially turned down a request by IBM to develop the operating system the firm later would be famous for. As it turns out, Gates actually suggested another company, called Digital Research, but the manager of that firm was reluctant to sign the non-disclosure agreement IBM insisted on. IBM then chose to return to Gates and in the events that followed IBM allowed him both to negotiate the purchasing of an operating system called QDOS and to keep the ownership of the modified system, thereby allowing him to receive a royalty fee for each copy licensed. As Frank (2012, 144-145) makes sure to note, Bill Gates undoubtedly succeeded due to his intelligence and hard-working capacity but it is hard to conceive how the scale of his success would have come about if any of the events in the sequence had gone differently. Probably someone else would have taken his place<sup>8</sup>.

The point is, as Watts (2011) explains, that since we will always try to explain events, such as a person’s success, only after the fact, we systematically downplay the role of chance because our explanations account only for a tiny fraction of the things that did happen while simultaneously leaving out much of the things that did not. In this way, casual interference risks becoming just a story; and such stories, Calvin told Hobbes, are “the fiction we invent to persuade ourselves that events are knowable and that life has order and direction (Watterson, 1995).” This topic is also addressed in Taleb (2008) and Mlodinow (2009) who show that randomness is an uncomfortable truth we tend to explain away<sup>9</sup>. From the position of evolutionary biology, it has been argued that since the cost of making type II errors – that is, believing something is not real when it in fact is – is greater than making type I errors – which is believing that something is real when it is not – natural selection can favor strategies that frequently make type I errors<sup>10</sup> (Foster & Kokko, 2009; Johnson *et al.*, 2013). From the position of psychology, there is a well-established phenomenon called *belief in a just world* whereby people have a disposition to believe that they generally will get what they deserve and, thus, that they are more in control over their own destiny than they really are (Furnham, 2003; Ellard, Harvey & Callan, 2016). And, if we tend to neglect the good fortune

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<sup>8</sup>To be fair, Bill Gates seems to be aware of the fact that luck has been a factor in his success. In an interview with Chris Anderson on a TED conference, for instance, he commented that “... if you get opportunities, which are partly a matter of luck and partly a matter of skill, those compound. So, when I was young I got to use computers that was very lucky. I got to work at a computer company because I was pretty good — these senior people looked at my code and told me: «Nah, that’s not as good as it can be.» And so I got better. And then I had another experience where a great developer looked at my code and told me how to do it better. So it’s a cycle, where luck and skill come and mess with each other and that’s what leads to a great — from my point of view — a great outcome (Gates, 2009).”

<sup>9</sup>Hayden White (e.g. White, 1980, 1984) has also given considerable attention to the use of narratives in historical theory.

<sup>10</sup>If the grass moves it could be the wind or it could be a tiger, but it is much more costly (or even deathly some would argue) to believe that it is the wind when it indeed is a tiger than to believe that it is a tiger when it was just the wind.

in some people's success, we also tend to neglect the role of misfortune in other people's failures – the headwinds/tailwinds asymmetry (Davidai & Gilovich, 2016). To be sure, the labor market is not a game of sheer luck but any person who honestly assesses their own success should concede that there were elements in that success that were not under that person's control<sup>11</sup>.

Second, a person's productivity is not the only factor that determines her pay. Alchan & Demsetz (1972), for instance, point out that in order to get paid your contribution to output one must be able to observe and measure it, but the nature of many jobs makes that a very difficult, and sometimes impossible, thing to do. While we with a significant degree of confidence can measure how much revenue a sales person has brought in for a company during the past year, it is far more challenging to pin down the contributions of a scientist in a research group to the long-term health of the same company. In addition, Folbre (2016) has recently emphasized that changes in exogenous conditions, such as the size and composition of birth cohorts and macroeconomic conditions, make productivity likely to influence pay more in some periods than in others. According to search and matching theory, the labor market suffers from information imperfections that make it difficult to match a worker to a vacancy (see e.g. Cahuc, Carcillo & Zylberberg, 2014). In the event that a worker and a vacancy comes together, it is, therefore, created a positive matching surplus. The wage the worker receives, then, depends not only on her productivity but also on her bargaining power, which exists because the worker can reject the job offer and, thereby, send the firm back to the pool of applicants with the possibility that no new match will take place. How much of the surplus the worker will obtain, depends also on the labor market tightness. If the labor market is tight – that is, employers have a trouble filling vacancies – then the cost of being unemployed decreases which, in turn, increases wages. And, as Atkinson (2015: 91-92) points out, customs and norms can be embodied in the negotiating process: “at any one time, a society may have relatively modest pay differentials supported by strong adherence to a norm of fair pay, or it may have large differentials and a low degree of conformity to a social code.” In addition, differences in bargaining power may be based on, for example, gender and race, and that can exert a significant, not to say unfair, influence on labor market outcomes (Weichselbaumer & Winter-Ebmer, 2005; Ponthieux & Meurs, 2015; Lang & Lehmann, 2012).

Third, there is an implicit assumption in the instrumental justification for inequality that the higher incomes of some people is a consequence of their effort alone – it is the fruit of their own labor. The British philosopher John Locke (1689: Ch. 5) gave a liberating argument from taxes in the seventeenth century when he wrote that “every man has a property in his own person. This nobody has any right to but himself. The labor of his body, and the work of his hands, we may

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<sup>11</sup>It is interesting to note that responses from the World Value Survey show that Americans are twice as likely as West Europeans to believe that the poor could become rich if they tried harder; and that a larger share of the population in Western Europe believe that luck and connections plays a greater role to determine economic success compared to Americans (Alesina & Angeletos, 2005).

say, are properly his.” John Bates Clark (1899) also promoted this point of view when he aimed to use marginal productivity theory to prove *just deserts*. More recently, “taxation is theft” has been a popular slogan among libertarians and other free-market proponents. But this is an idea that simply cannot be supported. At the most basic level, institutions are necessary to support the market system and, therefore, to create wealth. One needs a rule of law to enforce contracts and protect property rights, and one needs collectively financed services and networks, such as education, infrastructure, and telecommunication (Chang, 2010; King, 2016). Thus, the wealth a person creates is indeed a joint production of that person’s entrepreneurial skill or labor, or whatever word you want to use to describe her input, with the inputs from society. If the moral standard is that theft is wrong, then the far more sensible claim would be that “no taxation is theft,” because in this case the entrepreneur is actually “stealing” the public bits.

Indeed, if we go up one level this point becomes even more pertinent. As Mariana Mazzucato has argued in *The Entrepreneurial State* (2014), the government has played a central role in producing technological innovations. For example, the basic elements of the smart phone, such as the GPS, multi-touch screens and the internet, were advanced by the Defense Department; the battery technologies and solar panels that Tesla uses were a result of grants from the US Department of Energy; and the National Institute of Health is responsible for the research that ended up developing new medicine. To quote Mazzucato (2014:193), “it is important to recognize the «collective» character of innovation. Different types of firms (large and small), different types of finance and different types of State policies, institutions and departments interact sometimes in unpredictable ways.” And, as Johnson (2014:4-5) explains, the history of ideas innovations unfolds pretty much in the same way: “Johannes Gutenberg’s printing press created a surge in demand for spectacles, as the new practice of reading made Europeans across the continent suddenly realize that they were farsighted; the market demand for spectacles encouraged a growing number of people to produce and experiment with lenses, which led to the invention of the microscope, which shortly thereafter enabled us to perceive that our bodies were made up of microscopic cells. You wouldn’t think that printing technology would have anything to do with the expansion of our vision down to cellular scale... But that is the way change happens.”

Truth be told, I should argue that the fact that economic growth is something we create together, and not something we can attribute to a few single entrepreneurs, many times seems undercommunicated today. In macroeconomics, growth accounting is a procedure used to determine what different factors have contributed to economic growth, and it shows that a great deal of total output growth is not due labor growth or capital accumulation (see e.g. Barro & Sala-i-Martin, 2004: Ch. 10). This rather large and unexplained fraction is called the *Solow residual* or *total factor productivity growth*. While the notion of technological progress captured by the Solow residual is very broad, there seems to be a consensus that the accumulated knowledge, ideas, and technology



make up a significant part of it (Jones & Vollrath, 2013). The implicit recommendation from any just-desert adherent should then be to take the part of the national product attributable to calculus and place it on Isaac Newton's grave. Since much of our national product results from the technology and knowledge inherited from now departed people, it would be much more reasonable to let everyone get a share of the collaboration of which they are taking part.

Finally, to what extent does the market system facilitate the development of those skills and talents that society values? The question is notoriously difficult to answer because, as Sen (1973) argues, what a society counts as "talent" or "skill" is often culturally determined and therefore somewhat arbitrary. Yet, two interesting observations can be made:

- Baumol (1990) highlights the difference between productive, unproductive, and destructive activities. A doctor tending to his patient or a midwife helping to deliver a baby is productive. Corporate lawyers looking for tax loopholes so their companies can pay less taxes is unproductive. By some accounts, drug makers in the United States has spent \$2.3 billion on lobbying in the American Congress over the last decade to avoid the legislative proposal to rein in rising prescription prices (Chon, 2016). This is destructive. The distinction between these three categories is, as Baumol (1990) shows, not new, and has always been present in market economies. However, Bootle (2009:82) argues that "the more developed a society becomes... the more at risk it is of behavior that merely redistributes rather than creates." In principle, there is of course nothing wrong with activities that redistribute rather than create. For example, a divorce lawyer may help ensure a fair settlement and prevent costly mistakes, and a financial adviser may help connect your savings to productive investments with a decent rate of return. But it is worth to question how much society gains from the reallocation of labor into these industries. As Turner (2012:19) writes "if over a period of time the intensity of divorce litigation increases, and the income of divorce lawyers increases, and if as a results more highly skilled people seek to become divorce lawyers, we should not expect society to gain from the reallocation of skilled human resources, even though the output of divorce lawyers show up in GDP calculations as much as that of highly skilled doctors." Or as Frank (2012:167) has it, "almost without exception, the graduates of Harvard, Princeton, and Yale who flocked to the financial services industry [in the decade prior to the crises] are extremely intelligent and industrious. Had they pursued other careers, some might have helped develop more effective treatments for life-threatening diseases. Others might have developed more efficient solar panels. Instead, many of them helped market complex derivative securities that sent the nation into the deepest downturn since the Great Depression." A point that James Tobin made already in 1984: "we are throwing more and more of our resources, including the cream of our youth, into financial activities remote from the production of goods and

services<sup>12</sup> (Tobin, 1984:14).” As a final illustration, consider Bootle’s (2009:82-83) example of marketing. A marketing executive for, say, a washing powder manufacturer, is hired to ensure that her company sells more washing powder than its rivals and so, in effect, it is pretty much distributive. Nevertheless, her job creates social value if it ensures that the best company wins the competition, or at least if it prevents one company from dominating the market and, thereby, behave against the interest of the public. But adverts shown on the TV or that follows you on the internet can also be a powerful mechanism to create “false needs;” magazines specializing in celebrity news can aspire people to celebrity lifestyles; and romantic presentations of pleasant sidewalks and natural wonders in travel magazines can encourage people to buy an experience that many times cannot be delivered. The market economy is supposed to be based on informed consumers making informed, or rational, choices, but it is not clear that this, in every respect, is the world we live in<sup>13</sup>.

- The second observation is related to the way labor markets translate small differences in talent and skills into large differences in earnings. For one striking development over the last four decades or so is the increasing returns to skills, talents, and stardom. “The phenomenon of Superstars,” wrote Rosen (1981:845), exhibiting a clear vision of foresight, “seems to be increasingly important in the modern world.” Pelé, widely considered as one of the greatest football players of all time, earned about \$1.2 million a year (in 2010 dollars) in 1960; Cristiano Ronaldo made \$17 million a year playing for Real Madrid in the 2009-10 season (Porter, 2010). As writers, William Shakespeare and J.R.R. Tolkien made peanuts compared to J.K. Rowling, who became the first author in the history of the world to earn a billion dollars (GWR, 2004). According to Krueger (2005), the top 1 percent of music artists took 26 percent of concert ticket revenues in 1981; in 2003, that figure had more than doubled to 56 percent. One factor in Rosen’s (1981) explanation is that quality and quantity are imperfect substitutes – a patient would rather have one good heart surgeon to perform the operation rather than having two mediocre surgeons to do it; an opera fan would rather see one concert with Plácido Domingo or Cecilia Bartoli than ten concerts with less gifted singers; if there is, say, \$100 million at stake you would pay a premium to have the best attorney which gives you a 90 percent chance of winning rather than to have the second-best attorney which gives you “only” a 85 percent chance of winning. Hence, if there exists a somewhat uniform ranking among a population about who the most skilled and talented service providers are, there could be considerable income differences between the “superstars” and their less skilled colleagues<sup>14</sup>. The second factor in Rosen’s (1981) explanation is technological improvements

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<sup>12</sup>Philippon & Reshaf (2010) and Cournéde, Denk & Hoeller (2015) have shown that workers in the financial sector in the United States are paid a premium compared to workers with similar profiles in other sectors.

<sup>13</sup>A point that George Akerlof and Robert Shiller also make in a recent book entitled *Phishing for Phools* (2015).

<sup>14</sup>For example, if 10,000 people have \$10 each to spend on either an album by Domingo or an album by Bartoli, and

and globalization: better production technologies, the television, and the internet, have allowed more people to consume these products, thus generating higher revenue and, thereby, higher incomes to their producers. If we consider only these two factors, then there are no inefficiencies in this development. Given full information, it just reflects that talent and skill are more highly rewarded today than they were before. Meanwhile, more people have been able to see Cristiano Ronaldo play and to read the Harry Potter books. However, full information is in many cases a very strong assumption, especially regarding talent. Terviö (2006) argues that one cannot know talent without putting it to use – that is, talent is industry specific and can only be revealed on the job – and shows that when it is costly for firms to test workers and if workers cannot commit to long-term wage contracts and pay for jobs *ex ante*, firms will bid excessively for the pool of already revealed talents at the expense of trying out novice workers. The result is that there will be too many mediocrities in the industry and higher wages for known talents. From another perspective, Frank & Cook (1996) argue that the large incomes of “superstars” induces too many people to attempt to enter the competition, in part because they overestimate their chances of winning it. Moreover, they argue that some of those who attempt to become “artists” forego incomes from other types of work and may even neglect “normal” education. Consequently, they do not achieve the higher incomes other jobs could have given them. Hence, if firms have insufficient incentive to discover talent or if people fail to correctly assess their chances of succeeding, the incentive mechanism fails.

In the final analysis, these two observations shed some further light on the issue addressed in section 2 and 3. As a result of mass communication technology and globalization countries have become less associated with a local culture than in the past, becoming instead countries of a global culture with Cristiano Ronaldo and Harry Potter among its brands. If we add higher incomes to the equation, we see that one reason why Cristiano Ronaldo earns far more than Pelé earned in his time is that Ronaldo’s fans today have more money to spend on more expensive tickets as well as on shirts that bear his name or the brands that he endorses. Likewise, J.K. Rowling’s income does not only come from her books but also from the movies, the video games, and the toys produced from those books. As people’s income rises they will spend an increasing share of it to acquire these products, either for themselves or for their children, because without them either relative-status is lost or they cannot take part in all the same things as the rest of their group. And when more people use more money on the same stuff, more money goes in the hands of a few individuals. Although sports and music stars are few, the best lawyers, the best chefs, the best CEOs, the best agents and so on and so forth can only serve that many at a given point in time. But best is a relative

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they all prefer Domingo, then \$100,000 would go to Domingo and nothing to Bartoli although the difference in skill is almost negligible.

concept so the richer the people who compete for these services are, the more the top players in these occupations will get paid. As Lionel Robbins noted in 1932, “a substantial portion of the high incomes of the rich are due to the existence of other rich persons (Robbins, 1932:58).”

Meanwhile, some of these occupations are in Bootle’s (2009) terms distributive rather than creative. The market executive for celebrity A’s clothing brand competes with the market executive of celebrity B’s brand; corporate lawyers helping big companies paying less taxes; what the successful financial trader gains, the unsuccessful loses. The common denominator is that in these activities the worker’s results are highly measurable and achieved over a relatively short time span. In contrast, if a research team works on a drug for a life-threatening disease it takes many years or decades to develop it, and many failures are required. What each scientist brings in to the team is, therefore, almost impossible to measure. If the largely distributive areas of economic activity generates very high pay, then highly skilled individuals will seek to enter them to stay in or ahead of the crowd or to finance apartments in the best locations. But it is not clear that more highly payed corporate or divorce lawyers, investments bankers, and marketers have contributed to more rapid economic growth, partly because of the procedures used to calculate GDP (see e.g. *The Economist*, 2016), and if they have it is highly uncertain whether that growth has improved human welfare. Thus, while we should not conclude that the two instrumental arguments in defense of inequality are irrelevant, they are certainly not sufficient to evaluate the income distribution.

## 5 Inequality and Some Consequences

As an economy becomes richer it is therefore likely that both more of its consumption and more of its productive activities are channeled towards largely distributive and in some respects zero-sum competitions. It is also one where one person’s well-being depends to an increasing extent on the income of others and on that person’s income relative to that of others and where relative skill or talent is increasingly important due to the widening scope of “winner-takes-all” dynamics. The latter partly driven by the former. Taking this into account, an uncertain relationship between income growth and human contentment is what one would expect, especially since inequality has increased considerably in many Western countries. The salient feature of this development can be seen in table 1, which displays the average annual growth rate in real equivalised household income – that is, household disposable income adjusted for family size – by income group in a number of advanced economies from the mid-1980s to the late 2000s. It shows that in the two decades prior to the global economic crisis those on the top of the income distribution not only outperformed those on the bottom but in several countries (e.g. Germany, Netherlands, Sweden, Japan, United States) those on the lower end of the distribution barely benefited from economic growth at all. In total, a recent report from the OECD (2015:21) estimates that in recent decades “as much as 40% of the

Table 1: Average growth in real equivalised household income by income group in a number of wealthy countries, mid-1980s to late 2000s

	Total population	Bottom decile	Top decile	Percentage points difference
Australia	3.6	3.0	4.5	1.5
Canada	1.1	0.9	1.6	0.7
Czech Republic	2.7	1.8	3.0	1.2
Denmark	1.0	0.7	1.5	0.8
Finland	1.7	1.2	2.5	1.3
France	1.2	1.6	1.3	-0.3
Germany	0.9	0.1	1.6	1.5
Israel	2.3	0.8	2.8	2.0
Japan	0.3	-0.5	0.3	0.8
Luxembourg	2.2	1.5	2.9	1.4
Netherlands	1.4	0.5	1.6	1.1
New Zealand	1.5	1.1	2.5	1.4
Norway	2.3	1.4	2.7	1.3
Sweden	1.8	0.4	2.4	2.0
United Kingdom	2.1	0.9	2.5	1.6
United States	0.9	0.1	1.5	1.4

*Note:* The average annual changes are calculated from the period 1985-2008, with the following exceptions: Starting year is 1983 for Sweden; 1984 for France; 1986 for Finland, Luxembourg, and Norway; 1992 for the Czech Republic; and 1995 for Australia. The latest year is 2007 for Denmark and 2006 for Japan.

*Source:* OECD (2011).

population at the lower end of the distribution has benefited little from economic growth in many countries<sup>15</sup>.”

There are several interconnected causes likely to underlie this trend. One primary cause is skill-biased technological change in which advances in information and communication technologies have increased demand for those with higher education and simultaneously replaced jobs of intermediate skills largely involving routine tasks (Acemoglu & Autor, 2011; OECD, 2011; Atkinson, 2015). Globalization and more mobile factors of production is a second cause although the empirical evidence here is more mixed (OECD, 2011; Cahuc, Carcillo & Zylberberg: Ch. 11; Atkinson, 2015). In addition, it is evident that the widening income gap has coincided with a decline in the share of union members among workers in many countries (OECD, 2011) which in itself could be an endogenous consequence of skill-biased technological change and asymmetric globalization<sup>16</sup>

<sup>15</sup>The direct effect of this trend is easy to illustrate. At a growth rate of 0.5 percent it would take 144 years for a household to double their income. At a growth rate of 1.5 percent it would take 48 years. In other words, at these rates it would take about seven generations for households on the bottom of the generation to double their income whereas income doubles almost every other generation for households on the top of the distribution.

<sup>16</sup>The problem with empirical research on labor unions and collective bargaining is that countries have very different systems which in turn can differ both between the public and private sectors and across industries. In addition, the intangible nature of bargaining strength makes it a very difficult indicator to quantify. Usually trade union membership is used but as Carley (2009) writes in the introduction of his report, “trade union membership figures are a difficult

(Acemoglu, Aghion & Violante, 2001; Stiglitz, 2016) . However, my focus here will be on some possible consequences of increasing inequality although the consequence is harder to separate from the cause in some domains than in others.

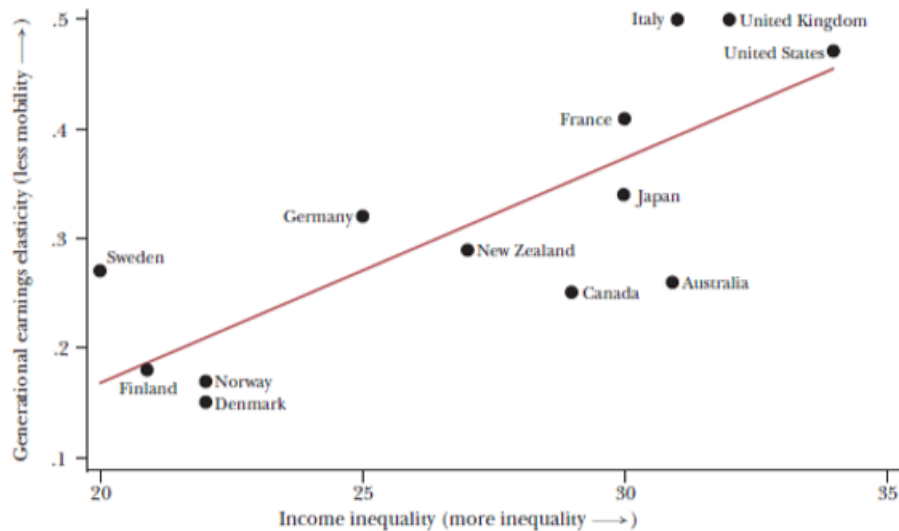
The most obvious aspect is that when those on the bottom of the distribution do not experience any growth at all, such as in United States, Germany and Sweden, they remain poor in the societies they live in, and the direct consequence is that “they lack the resources to...participate in the activities and having the living conditions and amenities which are customary, or at least widely encouraged or approved, in the societies to which they belong (Townsend, 1979:31).” Parents may struggle to buy Christmas presents to their children that are comparable to those of their friends, if they can afford some gifts at all, or they may not afford to send their children to football practice or other social events that most people can take for granted. And if we add to this fact the role social status plays in rich societies, it is not hard to imagine that when inequality takes this form it probably has a large negative effect on people’s well-being.

But rising inequality can also matter more generally ignoring any form for status competition. If much of the gain accrue disproportionately to the richest individuals, then the purchasing power of the economy may not be sustained because the marginal propensity to consume is lower for richer individuals (Stiglitz, 2012a). As a consequence, when income and wealth gets concentrated, some markets may get strangled and new markets can be less likely to develop because they may require a minimum critical amount of domestic demand (Cingano, 2014). Moreover, Berg & Ostry (2011) find that countries with more equal income distributions tend to have longer growth spells, and this result remains statistically and economically significant when adjusting for other potential determinants. However, in this paper it is hard to determine whether there is a causation or only an association. Their conclusion is strengthened by Ostry, Berg & Tsangarides (2014:25) who concludes that “inequality continues to be a robust and powerful determinant both of the pace of medium-term growth and of the duration of growth spells, even when controlling for redistributive transfers...It would be a mistake to focus on growth and let inequality take care of itself... because the resulting growth may be low and unsustainable.” In a related paper, Cingano (2014) uses harmonized data covering the OECD countries over the past thirty years to estimate the impact of inequality on growth. He finds that there is a sizeable and significant negative relationship. And interestingly, Dabla-Norris *et al.* (2015:7) find that “if the income share of the top 20 percent increases by 1 percentage point, GDP growth is actually 0.08 percentage point *lower* in the following five years... a similar increase in the income share of the bottom 20 percent is associated with 0.38

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subject area...featuring numerous methodological and conceptual problems.” To illustrate further, Card, Lemieux & Riddell (2004:555) investigate the cases of Canada, United Kingdom, and the United States, and find that the substantial decline in the unionization rate among men can explain “a significant fraction of the growth in wage inequality in the United States and United Kingdom” whereas in Canada a moderate drop in the union coverage had little effect on wage inequality. Meanwhile, a “modest decline in union coverage among women had little impact on female wage inequality (Card, Lemieux & Riddell, 2004:555)”.

Figure 6: The Great Gatsby Curve: When inequality is high there is less mobility across the generations



*Note:* Income inequality is measured by the Gini coefficient of disposable household income in 1985 using OECD data. The mobility between generations is measured by the Beta of parental and son earnings. The cohort of sons were born during the early to mid 1960s and their adult outcomes are measured in the mid to late 1990s. Further details can be found in Corak (2013) and the references therein.

*Source:* Corak (2013, figure 1:82).

percentage point *higher* growth [italics in the original].”

The main transmission mechanism suggested by these papers is the lack of investment in human capital. Theoretically, this result can be traced back to a long tradition in the literature on economic growth reviewed in Galor (2012). In particular, people in disadvantaged households – that is, the poorer segments of the population – may for a variety of reasons, such as credit market imperfections, struggle to access quality education and health services. This, in turn, results in low productivity growth, wasted potential and, thus, low social mobility.

In fact, one aspect of inequality of outcomes is that it can translate into inequality of opportunities. A graph *signaling* this phenomenon is Corak’s (2013) *Great Gatsby Curve* (figure 6) which shows that when inequality is high, intergenerational mobility is low. Following the terminology of Roemer (1998), which separates the determinants of economic outcomes into “effort” (factors that an individual can control) and “circumstances” (factors that an individual cannot be held responsible for, such as, gender, birthplace, and family background), the presence of such a relationship implies, in simple terms, that when inequality is high, the economic circumstances in which a child is born more strongly determines the child’s outcome as an adult.

It must be emphasized that the Beta, measured on the vertical axis of figure 6, says nothing about the direction of change. But a careful look on the underlying statistics confirms what just has been said. Corak (2013), for example, compares Canada and the United States and concludes

that it is in the extremes of the distribution that the two countries differ. In particular, he writes that “more than half of sons raised by the top decile American fathers fall no further than the 8th decile, and about half of those raised by the bottom decile fathers rise no further than the third decile. In Canada, there is less stickiness at the top, and a much higher proportion of bottom decile sons also rise to the top half of the earnings distribution (Corak, 2013:83).” Jantti *et al.* (2006:17) includes the Nordic countries and the United Kingdom in their analysis and show that “the persistence of very high incomes is much larger than the persistence of very low incomes in all the Nordic countries – around 35 per cent of sons born in the richest quintile remain in that position.... [comparing the Nordic mobility matrices with those of the US there is] much lower upwards mobility out of the poorest quintile group in the U.S. More than 40 percent of U.S. males born into this position remain there.<sup>17</sup>” Building on research in psychology and neurobiology (Knudsen *et al.*, 2006), Corak (2013:85) elegantly describes the casual mechanisms in the following way:

*Socioeconomic status influences a child’s health and aptitudes in the early years – indeed even in utero – which in turn influences early cognitive and social development, and readiness to learn. These outcomes and the family circumstances of children, as well as the quality of neighborhoods and schools, influence success in primary school, which feeds into success in high schools and jobs, and the degree of inequality in the labor markets determine both the resources parents have and ultimately the return to the education children receive. This entire process then shapes earnings in adulthood. The Great Gatsby Curve is a summary of all of these underlying gradients, reflecting the outcome of a host of ways that inequality of incomes affects children.*

Moreover, as Marshall (1890:721) wrote some time ago

*Even if we took account only of the injury done to the young by living in a home in which the father and the mother lead joyless lives, it would be in the interest of society to afford some relief to them also. Able workers and good citizens are not likely to come from homes which the mother is absent during a great part of the day; nor from homes to which the father seldom returns till his children are asleep and therefore society as a whole has a direct interest in the curtailment of extravagantly long hours of duty away from home.*

In this way, inequality can also be seen as a democratic problem. If the poor have to spend a lot of time and energy to obtain a subsistence level of income, they may have neither time nor energy to engage in in political activities (Ringstad, 2017). Another problem, emphasized in Barro (2000), is

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<sup>17</sup>To what extent it is natural to compare, say, Denmark with the United States is another matter. After all, Denmark is a much smaller country with a much more homogeneous population. However, as Corak (2013) points out, we can make some comparisons in order to try to figure out the underlying drivers. Canada and Unites States is one example.



that the economic elites may have the power to lobby and such activities would consume resources and promote official corruption in a way that would hamper economic performance. Furthermore, it could be argued that it is impossible to have a well-functioning democracy in the presence of a large share of uneducated voters. Adam Smith (1776, Book V: Ch. 1) accentuated this point: “The more they are instructed, the less liable they are to the delusions of enthusiasm and superstition, which, among ignorant nations, frequently occasion the most dreadful disorders. And instructed and intelligent people besides are always more decent and orderly than an ignorant and stupid one.”

Finally, I want to address a topic discussed in Atkinson (2015: Ch. 3 & 4) regarding the direction of technological change. And the particular issue is the case of relational goods. Adam Smith argued in *Moral Sentiments* (1759) that sociability is the most obvious characteristic of human beings. In many cases human interaction is therefore valued although it is not an essential part of the production process. To many, being able to have an assuring talk with the pharmacist about the proper use of the drugs is important. As people gets older many become lonely and then they do not want a robot to deliver the meal at the door – they want human contact. “Economic inequality is often aligned with differences in access to, use of, or knowledge of information and communication technologies. For middle-class taxpayers, filling in a tax return on-line may be a time-saving operation, but for a person who has just become unemployed, applying for benefits on-line may be a worrisome challenge. Those facing difficulties are the ones most in need of an administration with a human face (Atkinson, 2015:123).” Moreover, work provides a purpose to life and dignity to individuals (Stiglitz, 2012b), but it is also a place where you encounter other people and friendships are made. These are things that have no market value, they will never show in the GDP statistics, and there is no fundamental theorem in economics that ensures that the market brings an efficient allocation of these things. As Atkinson argues, technological innovations reflect a conscious decision about undertaking such investments, and what he urges is the need to “balance the cost savings from technological advances against the loss of human contact... governments should safeguard the position of those who are disadvantaged, not just materially but also in their relation with new technology (Atkinson, 2015:122-123).”

It is clear then that inequality is about much more than just money.

## 6 Concluding Remarks

About 40 years ago, Arthur Okun (1975) wrote a highly influential book in which he described the big trade-off between equality and efficiency. Here he argued that transferring wealth from the relatively rich to the relatively poor by means of taxation was an appropriate policy for a government. At the same time, he realized that there was a loss of efficiency inherent in the process: “The money must be carried from the rich to the poor in a leaky bucket. Some of it will simply disappear

in transit, so the poor will not receive all the money taken from the rich (Okun, 1975:91).” But the world has changed considerably since the 1970s, and today it is evident that in many countries there are several measures that can be taken to achieve both objectives at once. Chief among them, investment in people, and in particular in the youth, and removing unproductive tax loopholes. Closing down tax havens would also contribute although that would require better economic cooperation that we have today (on which see Zucman, 2016). Yet, Okun’s (1975) insight that there are limits to the number of policies that can achieve both ends at once is likely to be true. But as I have discussed in this paper, it is not clear that economic growth necessarily will increase human welfare and therefore it is not clear that it should be the overriding objective of public policy. What we do know, however, is that involuntary unemployment has a major negative affect on persons affected by it, not only in terms of income but also in terms of having a sense of meaning and social relationships. In other words, having a job and being able to feel that one “belongs” in society is important to live well. It is therefore important for governments to discuss how to make people best capable to be included in the economy, and the best ways to include them. Economic growth will not take care of that problem but it can be an acceptable *consequence* of more people being able to express economic freedom, which in turn can be a result of more people being able to take higher education (which may lead to the discovery of a new Richard Feynman or Niels Bohr) which also allows them to face more employment opportunities. And we should also appreciate the means of markets to deliver that end. As Sen (1999:13) argues, even if a centralized Soviet economy had been as effective as a market economy to deliver growth we would not have accepted that as a good outcome because people are not free to choose what to do and where to work: “the merit of the market does not lie only in its capacity to generate more efficient culmination outcomes, but in the process of by which those outcomes are achieved.” But this is a completely different justification for markets which is independent of growth concerns. It also remains a possibility that economic growth is a necessary condition for continued well-being – that people will be unhappy in a static economy where neither products nor services change or improve in quality. And it can also be the case that the curiosity that drives these changes, the search for new ideas and the desire to do something better, is important to human welfare in itself. The presence of status competition and congestion effects implies, however, that the results from that growth may not bring further increases in life satisfaction.

Thus, it is not clear to me what exactly constitutes “good growth” and how it every respects differ from “bad growth.” What seems clear to me, however, is that there is a role for public policy to attempt to mitigate some effects while promoting others, and that we need to have far-reaching discussions about how to achieve these things. These are difficult issues because they too involve trade-offs but at least they do not take the answer as given, that answer being that economic growth will necessarily increase human welfare. Moreover, what seems beyond doubt is that the income

distribution is not shaped by just – in both meanings of the word – market forces, and that inequality can have negative effects on economic performance and both economic and political freedom. In contrast to Robert Lucas, I should therefore end by commenting that of the tendencies that have been harmful to sound economics, the most seductive, and in my opinion, the most poisonous, has been to *not* focus on the question of distribution.

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