

Inequality, economic development and social progress

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Abstract

Recently, inequality has been recognized as a multidimensional variable, no longer limited to the economic aspect; consequently, the analysis of this matter should be more comprehensive and should also include all non-quantitative dimensions; to achieve this aim successfully, it is necessary to adopt a new perspective for all the subjects involved in this issue. So, at a statistical level, in order to obtain a better definition of inequality, the GDP mechanism should no longer be considered the main benchmark for economic development and social progress, and the new statistical tools which clearly recognize the multidimensionality of that variable should be preferred. The same change of perspective should also be considered at a philosophical level, since a wider result about this issue can be achieved only shifting from the utilitarian philosophy to a more comprehensive theory, such as the Capability approach. Finally, inequality and socioeconomic development matters are necessarily correlated with the kind of socioeconomic framework chosen by the society; thus, we have also to investigate how equality and efficiency behave in the main paradigms which characterized the last two centuries, in order to identify the related advantages and disadvantages, and consequently make the appropriate adjustments. However, also in this field, by adopting a different point of view from the mainstream, it would be possible to move towards a completely new paradigm, able to valorize both efficiency and equality, thus allowing to overcome the Okun tradeoff to which all the main models (even if adjusted) are inevitably subjected.

Keywords: *Inequality; economic development; social progress; GDP; capability approach; well-being; quality of life; welfare; human development; Collaborative Commons.*

Inequality "is a violation of human dignity; it is a denial of the possibility for everybody's human capabilities to develop. It takes many forms, and it has many effects: premature death, ill-health, humiliation, subjection, discrimination, exclusion from knowledge or from mainstream social life, poverty, powerlessness, stress, insecurity, anxiety, lack of self-confidence and of pride in oneself, and exclusion from opportunities and life-chances. Inequality, then, is not just about the size of wallets. It is a socio-cultural order, which (for most of us) reduces our capabilities to function as human beings, our health, our self-respect, our sense of self, as well as our resources to act and participate in this world" (Therborn 2013: p. 1).

The idea of inequality suggested by the Swedish sociologist Goran Therborn has the merit of highlighting the connection to the concept of human dignity and, at the same time, of allowing a comprehensive vision of this issue; such a definition makes it possible to analyze the thematic on a multidisciplinary basis, which is essential because of the multidimensionality of inequality.

From a statistical-economic point of view, Therborn's connection to the concept of dignity finally permits to enhance the idea of proceeding towards an integration (even better a substitution) of GDP with other indicators more representative of the social progress in modern society¹; only from an

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¹ The limit of GDP as an adequate index for measuring the socioeconomic development was highlighted by Robert Kennedy's speech at the University of Kansas on March 18, 1968, in which he said that GDP "measures everything, except that which makes life worthwhile".

Aristotelian perspective², is it possible to consider the development not just materialistic, but in a wider sense, including all the necessary dimensions which make life worthwhile³.

The Easterlin Paradox (Easterlin 1974) has highlighted that we cannot ignore any longer that modern societies have new needs⁴, no more only economic⁵, which increase in a pyramidal way as theorized by Maslow (Maslow 1954).

Also the recent pandemic crisis has highlighted the limits correlated with an approach based exclusively on economic performance; this event can be considered a warning to remind us that we cannot reduce human life to a simple accounting matter between costs and proceeds.

Even though the clear empiric analyses made by Piketty (Piketty 2014) and Stiglitz (Stiglitz 2016) have underlined the size and the nature of economic inequality, they have touched just an aspect of the matter (usually preferred by economists most likely because people consider the economic issue an important part of their lives, and moreover because economic aspects are easier to measure and to compare).

At a deeper analysis, inequality should involve also other aspects different from the monetary ones, and consequently the results found by the Authors cannot be the point of arrival of the matter but the start. We have to recognize the multidimensional nature of inequality, and thus, to measure it properly, wider statistical tools, able to reflect all the complexity of that variable, are necessary. Making the right choice of progress indicators is very important because the statistical solution chosen will influence the quality and the effectiveness of related public policies.

² In Nicomachean Ethics, Aristotle said that “the life of money making is a type of compulsory activity, and it is clear that wealth is not the good being sought, since it is instrumental and for the sake of something else” (Aristotle 2002).

³ The GDP index has a preeminent role because it is simple enough to measure, since the economic value of goods and services allows for an easy comparison (and consequently it is difficult to find an adequate alternative); it reflects the economic welfare of a country (in fact, it seemed correct to associate the GDP growth also to social improvement, due to the positive correlation between wealth and wellbeing); moreover, the GDP index allows for an easy cross-country comparison. However, there are also some limits: for example, GDP omits all the activities which do not have a market evaluation (such as unpaid domestic work and volunteering) and all the aspects without a monetary evaluation (such as social relationships and leisure time); furthermore, per capita GDP, being a mean value, does not consider how income and wealth are really distributed among people (so GDP could paradoxically show that a country is improving, although it is affected by great inequalities and there are very poor social classes). In addition, the GDP index expresses in a single value different aspects of life not so correlated; even though a single number could seem an advantage, in practice it could lead to misinterpretation (for example, two countries showing the same GDP value could have very different levels of health services, education systems, civil and political rights). GDP also includes costs to counterbalance negative externalities of economic development (pollution treatment expenditures, road accidents and health costs, commuting, etc.); therefore, an increase in GDP, due to these variables, does not necessarily represent an increase in the quality of life. Finally, it must not be forgotten that GDP measures the produced income flows but not the stocks of available capital and resources.

⁴ Di Tella and MacCulloch found that “happiness responses of around 350,000 people living in the OECD between 1975 and 1997 are positively correlated with the level of income, the welfare state and (weakly) with life expectancy; they are negatively correlated with the average number of hours worked, environmental degradation (measured by SOx emissions), crime, openness to trade, inflation and unemployment [...]. Consequently the unexplained trend in happiness is even bigger than would be predicted if income was the only argument in the utility function” (Di Tella and MacCulloch 2008). In the same way, Diener e Seligman: “economic indicators were extremely important in the early stages of economic development, when the fulfillment of basic needs was the main issue. As societies grow wealthy, however, differences in well-being are less frequently due to income and are more frequently due to factors as social relationship and enjoyment at work. Important noneconomic predictors of the well-being of societies include social capital, democratic government and human rights. [...] Money is a means to an end, and that end is well-being; but money is an inexact surrogate for well-being, and the more prosperous a society becomes, the more inexact a surrogate income becomes” (Diener and Seligman 2004).

⁵ Easterlin’s empirical results demonstrate that there is not always a growing relation among income, economic welfare and happiness, but the latter is stable after having reached a specific level of income and economic welfare; these results show the possibility that determinants of wellbeing could be wider than those essential for societies in their earlier stages of development.

The recommendation of the Sarkozy Commission report (CMEPSP 2008) of shifting the focus from the economic performance indicators⁶ to the wellbeing ones, suggests that now we cannot deny any longer the existence of many other statistical tools with a wider view than GDP, and therefore that these tools should have a primary role in the measurement of social progress.

However, we are not simply referring to the solutions usually known as Adjusted-GDP indicators, for example ISEW (Cobb and Daly 1989) and GPI (Cobb, Halstead and Rowe 1995), whose innovations are certainly important⁷ and whose main advantage is to allow for an easy comparison to GDP thanks to the same quantitative methodological approach used to construct them⁸, but to the solutions aimed at abandoning the GDP philosophy and substituting it.

So, special attention should be given to innovative solutions, such as the Human Development Index⁹ (implemented by the UN), the Better Life Index¹⁰ (realized by OECD), the BES Index¹¹ (the Italian proposal by Istat), and the Gross National Happiness Index¹² (born from the idea of the King of Bhutan).

All these indicators explicitly recognize the multidimensionality of wellbeing¹³, hence, in countries which are more developed, they can be a valid alternative to the GDP measurement.

Obviously, also these solutions have their limits¹⁴; however, even though some errors should occur by using indicators which evaluate people's wellbeing and environmental and economic

⁶ For a clear analysis of the limits of economic indicators, see Diener and Seligman 2004.

⁷ "Substantially ISEW starts from GDP, then subtracts the social costs of water and air pollution, long-run environmental damages, household expenditures for health and education, degradation of renewable resources and depletion of those non-renewable, and adds the value of domestic work. This index represents an attempt to measure the portion of economic activities ensuring an effective growth in the quality of life and, to some extent, the quality of economic activities. [Genuine Progress Indicator therefore is] an evolution of ISEW [...] because it introduces measurements of some improvements (for example leisure time) and some negative effects (for example inequalities and degradation) of the economy and of its sustainability" (Corduas 2013: pp. 30-31).

⁸ The report by the Sarkozy Commission highlights that countries where ISEW and GPI are available, their measurements converge with GDP levels as far as a certain value, and then they start to diverge. So, many Authors suggest the idea of a "threshold hypothesis", by which GDP and wellbeing move together as far as a certain point, beyond which the GDP improvement does not reflect wellbeing growth anymore (Max-Neef 1995). By describing a situation in which the negative effects of economic growth on social and environmental conditions exceed the benefits of the GDP additional units, the threshold hypothesis seems therefore to confirm the Easterlin Paradox.

⁹ Initially developed in 1990, since 2010 HDI is the geometric mean of three dimension indices: life expectancy at birth; education level, given by mean years of schooling and expected years of schooling (numbers of expected years of schooling given the current enrolment rates); gross national income (GNI) per capita (UNDP 2010).

¹⁰ BLI is based on 11 dimensions of wellbeing regarding material living conditions (housing, income and jobs) and quality of life (community, education, environment, civic engagement, health, life satisfaction, safety, work-life balance). For further study, see <http://www.oecd-betterlifeindex.org/it/about/better-life-initiative>.

¹¹ BES, developed in 2010, is based on 12 domains (i.e. wellbeing dimensions): health; education and training; work and life balance; economic well-being; social relationship; politics and institutions; security; subjective well-being; landscape and cultural heritage; environment; innovation, research and creativity; quality of services. For further study, see [https://www.istat.it/it/benessere-e-sostenibilita/la-misurazione-del-benessere-\(bes\)/il-rapporto-istat-sul-bes](https://www.istat.it/it/benessere-e-sostenibilita/la-misurazione-del-benessere-(bes)/il-rapporto-istat-sul-bes).

¹² GNH is based on 9 areas: psychological wellbeing, health, time use, education, culture, good governance, ecology, community vitality and living standards. For further study, see <http://www.grossnationalhappiness.com>.

¹³ Therefore, in line with the recommendation of the Sarkozy Commission, that suggests how wellbeing is a multidimensional concept based on 8 dimensions: material living standards (income, consumption and wealth); health; education; personal activities (including work); political voice and governance; social connections and relationships; environment (present and future conditions); insecurity, of an economic as well as a physical nature.

¹⁴ For example, finding a clear and shared definition of sustainability; moreover, happiness is considered a too subjective variable, causing many doubts about its statistical significance and the possibility of cross-country comparisons; in fact, we are not yet sure what people really think when they answer surveys and if the interpretation of the questions is the same for different citizens (due to either different cultural traditions or the potential change in the original sense of the questions which could occur when translating); however,

sustainability, these errors would probably have a minor impact than those correlated with indicators based exclusively on an economic philosophy.

In fact, how believable could it be that the potential errors of the alternative indicators to GDP (due to measurement techniques not yet perfected¹⁵, to erroneous weighting of the variables, or to the fact that in some cases they use subjective evaluations), are more harmful than those generated by a tool that emphasizes “police protection, prisons, some legal services, mental health services, purchases of cigarettes, gambling and commuting, [but does] not include externalities, side effects of productions and consumption that do not result in market transaction”? (Diener and Seligman 2004: p. 23).

By moving towards statistical tools able to enhance the multidimensionality of wellbeing, it becomes easier to understand that inequality cannot be considered only from an economic perspective.

Once recognizing the multidimensionality of inequality, we have to shift the analysis from a statistical-economic perspective to an ethical-philosophical view, because it is necessary, first of all, to establish a prior definition of this concept. Thus, we need to find an answer to the question asked by Sen: “Equality of what?” (Sen 1992). This question is significant because it underlines how the different dimensions of inequality arise from human heterogeneity, and therefore, before establishing the existence of inequality (and if there is, try to correct it), a widely shared definition of this concept must be found.

Sen found the answer to his question in the well known Capability approach, a completely different way of thinking inequality that can finally represent a valid alternative to the mainstream philosophy, i.e. utilitarianism, which has prevailed in these last two centuries.

The intuition through which Sen changed the “informational basis”¹⁶ from the utility to the capability of converting our own resources permits to define a completely new concept of welfare – so much different from the one used by the Utilitarians that many Authors have often preferred to use alternative words such as well being, *bien vivre*, *star bene* – now allowing the analysis of inequality in a comprehensive way, no longer limited to the interpersonal difference in income and wealth.

Therefore, the Capability approach permits to face the typical dilemma aggregation-distribution, and consequently the conflict efficiency-equality, in a different way, since efficiency now can be seen not only from a paretian perspective (i.e. economic efficiency), but it holds a wider meaning, which finally allows us to consider this variable as a complement to equity instead of a substitution of it, and thus to be free of the tradeoff matter.

Bruni reminds us that if well being is described neither by income nor by possession of things, but by capabilities, then we can change the paretian criterion of utility-based efficiency into a senian one where efficiency is based on capabilities, according to which a social order is efficient only if it is not possible to improve the basic capabilities of someone without reducing them for someone else. A senian criterion of evaluation of different situations would allow economists to study distribution issues along with efficiency and, therefore, by maximizing efficiency it could optimize equity too. A redistribution of resources from individuals who have already satisfied their own basic capabilities to those who have not yet reached them, improves both the efficiency (because it increases the capabilities of someone without reducing those of someone else) and the equity of social order (Bruni 1995: p. 135).

Thanks to the innovation of Sen’s philosophy it is possible to overcome the utilitarianism limits (and therefore also those of GDP), and to highlight some ignored issues by the Utilitarians as those

developments in neuroeconomics (such as neuroimaging techniques) should allow, in the future, to obtain objective measurements also for subjective variables. There is therefore a high risk that subjective measurements could be biased by adaptive preferences, which means individuals could erroneously estimate their wellbeing due to an unconscious influence by external circumstances, such as socio-cultural context, values and traditions of their own community (a typical situation is that of women accepting unconsciously gender inequality in those societies where their members consider it right).

¹⁵ Because these indicators are still in their initial development phase.

¹⁶ “The informational basis of a judgement identifies the information on which the judgement is directly dependent and asserts that the truth and falsehood of any other type of information cannot directly influence the correctness of the judgement” (Sen 1992: p. 73).

correlated with adaptive preferences¹⁷, unemployment, poverty, institutional framework, and all kinds of discriminations. By using the concept of capability instead of income and resource, Sen clearly points out how inequality can be the consequence of lack of opportunities (while utilitarianism does not see it because of malleability of social preferences¹⁸); how unemployment benefit, though able to equalize interpersonal monetary differences, cannot solve social inequality (because it cannot deal with psychological matters such as lack of self-esteem and sense of community); how the absence of suitable educational and health system, and more generally, of effective institutional framework impedes equal opportunities of development in different countries; and how discriminations do not allow, even without significant differences in income and wealth, to reach a fully self-realization.

Even though the Capability approach permits to widen the level of analysis on inequality, however Nussbaum underlines that Sen's idea alone is not enough, but it needs a specific list of "central capabilities", i.e. those essential to make life worthwhile¹⁹.

We think that such a list – seen as the Rawlsian module²⁰ and used according to the philosophy of overlapping consensus²¹ – should be the yardstick in the analysis of inequality (Nussbaum 2011). Based on such a mechanism (political liberalism founded on overlapping consensus) and not on a comprehensive doctrine²², Nussbaum's version of the Capability approach seems not only to be useful but also able to remain stable over time (because overlapping consensus does not require the suppression of people who think differently (Nussbaum 2011: p. 123)).

In this way, it is possible to realize the first of the three integrations to Sen's approach suggested by Wolff and De-Shalit, i.e. the capability security (Wolff and De-Shalit 2007): in fact, it is

¹⁷ The Welfarists believe there would not be inequalities between the rich and the poor if the latter are able to adapt their preferences sufficiently to their poverty status.

¹⁸ In fact Sen states that "our desires and pleasure-taking abilities adjust to circumstances, especially to make life bearable in adverse situations [...]. The deprived people tend to come to terms with their deprivation because of the sheer necessity of survival, and they may, as a result, lack the courage to demand any radical change, and may even adjust their desires and expectations to what they unambitiously see as feasible" (Sen 1999: pp. 62-63).

¹⁹ The list has 10 capabilities: life (being able to live a complete and satisfying life into old age and not having life cut short or being made such that it hardly seems worth living); bodily health (living with good health, to have good food and proper house); bodily integrity (being able to go where you want to go, being free from attack and abuse of any kind and being able to satisfy healthy bodily needs); senses, imagination and thought (being able to use all of one's senses, being free to imagine, think and reason, having freedom of expression, including political and religious); emotion (not being subject to fear and anxiety or blighted by trauma or neglect); practical reason (being able to consider and develop understanding of good and evil, and to think critically about the world and one's own place in it); affiliation (being able to live with others and to have self-esteem; that means to prevent racial, gender, sexual orientation, religion, caste, ethnicity and citizenship discriminations); other species (being able to live with the full range of creatures and plants that inhabit the world around us); play (being able to laugh, play games and generally have fun); control over one's environment both at the political level (being able to participate in political activities, making free choice and joining with others to promote political views) and at the material level (being able to own property and goods, and to seek and find worthy jobs). See Nussbaum 2011: pp. 56-58.

²⁰ Describing the second aspect of political conception, Rawls states that: "the political conception is a module, an essential constituent part, that fits into and can be supported by various reasonable comprehensive doctrines that endure in the society regulated by it. This means that it can be presented without saying, or knowing, or hazarding a conjecture about, what such doctrines it may belong to, or be supported by" (Rawls 2005: pp. 12-13).

²¹ "Political liberalism looks for a political conception of justice that we hope can gain the support of an overlapping consensus of reasonable religious, philosophical, and moral doctrines in a society regulated by it" (Rawls 2005: p. 10).

²² On this matter, Tincani reminds us that "political liberalism studies only one aspect of people's life (the political action), while specific comprehensive doctrines often claim to rule all aspects of life; specific comprehensive doctrines usually support a model of public life full of values, i.e. a paradigm closer to the community than to the society. Society is not a community. [...] Community in the strict sense – meaning the social entity derived by communitarianism – does not accept the idea of neutrality of State as liberalism does, but on the contrary it supports a positive policy for the realization of common good, as a substantive vision of good life which defines the lifestyle of the community" (Tincani 2006: p. 27).

not enough to grant people (a list of) capabilities, but it is also necessary that individuals can count on them in the future²³.

However, not less important are the other two suggestions, that the Authors call fertile functioning and corrosive disadvantage, which allow to identify, inside the list of central capabilities, those having (similarly to Sen's instrumental freedoms²⁴) the power either to develop other functionings/capabilities or to remove situations of deprivation that can negatively reflect also on other capabilities.

These innovations allow to highlight the priority of each functioning/capability, thus helping the policy makers to allocate adequately scarce resources.

If we share the definition used by Deaton for wellbeing²⁵, then we can say that the Capability approach, developed by Sen and revised by Nussbaum, Wolff and De-Shalit, represents now the most adequate model able to foster a kind of development which reflects perfectly the definition given by the Scottish economist: in fact, "the purpose of global development [...] is to enable people to live full and creative lives, developing their potential and fashioning a meaningful existence commensurate with their equal human dignity. In other words, the real purpose of development is human development; other approaches and measures are at best a proxy for the development of human lives, and most don't reflect human priorities in a rich, accurate, or nuanced way. [...] Unlike the dominant approaches, it begins from a commitment to the equal dignity of all human beings, whatever their class, religion, caste, race, or gender, and it is committed to the attainment, for all, of lives that are worthy of that equal dignity. Both a comparative account of the quality of life and a theory of basic social justice, it remedies the major deficiencies of the dominant approaches. It is sensitive to distribution, focusing particularly on the struggles of traditionally excluded or marginalized groups. It is sensitive to the complexity and the qualitative diversity of the goals that people pursue. [...] It also takes account of the fact that people may need different quantities of resources if they are to come up to the same level of ability to choose and act, particularly if they begin from different social positions" (Nussbaum 2011: pp. 231-233).

A significant contribution to foster the change from an exclusively economic perspective to a more comprehensive point of view could also arrive at juridical level through a greater enhancement of the concept of dignity in the legislative field: for example, in Italy, Article One of the Constitution could be changed from the current statement "Italy is a democratic Republic based on work" to the more advanced "Italy is a democratic Republic based on dignity". In fact, by anticipating what is now only stated in Article Three of the Constitution, it would be possible to highlight the preminent feature of this value, thus giving an effective legitimization both to the Capability approach and to all those solutions favoring the use of statistical tools more representative of the progress of modern society.

Even though the Capability approach has the virtue (in part also due to the resource-oriented approach²⁶) of shifting the focus from equality of outcome to equality of opportunity, we must however deal with a problem which is not easy to solve if we want to effectively reduce ex ante inequality. In fact, first of all, we need to find all the factors which play a major role in self-realization²⁷; and then we have to decide whether, at an ethical level, the reasons of success do not violate the principles of justice and equity and therefore can be accepted. Among these factors,

²³ This aim can be achieved, for example, with a written Constitution which can be amended only through a complex process and a large majority.

²⁴ After distinguishing between constitutive role (freedom as an *end* of development) and instrumental role (freedom as *means* of development), Sen points out that instrumental freedoms not only directly promote a person's capability, but also complement each other so that they mutually strengthen: for example, economic growth not only eases private income rising, but also improves social welfare (since higher incomes allow higher public spending); at the same time, social welfare (especially basic education and adequate health care) enhances a person's capabilities (i.e. probabilities) to earn and to get rid of poverty (Sen 1999: p. 90).

²⁵ "I use the term *wellbeing* to refer to all of the things that are good for a person, that make for a good life. Wellbeing includes material wellbeing, such as income and wealth; physical and psychological well-being, represented by health and happiness; and education and the ability to participate in civil society through democracy and the rule of law" (Deaton 2013: p. 44).

²⁶ We are referring in particular to the rawlsian theory of justice (Rawls 1971).

²⁷ For further analysis of those variables, see Meade 1993.

hereditary issues have always been the most challenging, especially in modern society, where the inheritance is no longer limited only to wealth, but also includes various non-monetary aspects, such as all the possible advantages correlated with the status of wealthy households (which means an intergenerational transmission not only of a higher economic capital, but of a higher social capital too²⁸).

There is, therefore, a high risk that, in order to reach real equality in the starting points, it is necessary to set extreme measures, probably not fully compatible with the rules of the actual socioeconomic system (Maccabelli 1998: p. 483).

Maccabelli's observations lead to another factor responsible for the evolution of the inequality, i.e. the socioeconomic model characterizing the society; in fact, different orders are correlated with different levels of inequality and, at the same time, with efficiency and freedom matters, so making it very difficult to find a solution able to jointly maximize these variables.

Starting from the present prevalent paradigm, i.e. the market capitalism, we have to recognize how this model succeeded in destroying the "feudal reproduction" of the positions, a mechanism that precluded at the source any possibility of social mobility. Moreover, thanks to the free-trade system and to the Marginalist philosophy²⁹, in theory everyone "could play the game" and achieve success. Furthermore, the mechanism of economic incentives³⁰ assures the efficiency, which, at least in the first stage of development³¹, leads to a general improvement in the quality of life for all social classes³².

²⁸ "The mechanisms that reproduce and widen inequality are easily understandable. A rich family will be able to dedicate high resources in children's education. A high social position of the family allows children to have immediate connections with people belonging to a similar social environment. There is a high possibility of receiving a large inheritance too. Also marriages and consequently the possibility of joining wealth for the following generations will probably remain inside this social circle" (Maccabelli 1998: p. 473).

²⁹ Neoclassical economists support the ethics of rewards, in which earnings must be proportional to the individual contribution to the production; the marginal productivity theory, therefore, allows economists to consider resulting differences in income acceptable and fair. Okun, indeed, states that "rights in the marketplace do not guarantee anyone an income, but then freedom of speech does not guarantee anyone an audience" (Okun 2015: p. 39).

³⁰ "In their absence, society would thrash about for alternative incentives – some unreliable, like altruism; some perilous, like collective loyalty; some intolerable, like coercion or oppression" (Okun 2015: pp. 115-116).

³¹ In the most advanced societies economic incentives could not be the only determinants for efficiency, since there are new factors responsible for inefficiency, such as adaptive preferences; the issue is not limited to the matter of an unconsciously erroneous evaluation of personal wellbeing, but it also involves the possibility that individuals adapt their preferences with regards to labor, either accepting a job not really matching their attitudes and abilities, or even choosing to give up seeking a job (recently, this situation has increased so much that it has generated a new phenomenon, known as the discouraged worker. According to the US Bureau of Labor Statistics, "discouraged workers are a subset of persons [...] were not currently looking for work specifically because they believed no jobs were available for them or there were none for which they would qualify"; see <https://www.bls.gov/cps/lfcharacteristics.htm#discouraged>). Clearly such a system, where some persons can neither do their best nor work at all, can never be efficient.

³² Thanks to the imperfection of the ethics of rewards; Okun states that "production comes out of a complex, interdependent system and may not be neatly attributable to individual contributors. [...] In fact, if everyone received the full measure of his marginal product and no joint inputs existed, the economic benefits generated by great entrepreneurs and inventors would accrue entirely to them. There would then be no trickle-down of progress to the masses. Benefits do actually trickle down precisely because the big winners do not obtain – or at least do not maintain – the full rewards for their contribution to improved technology, increased knowledge, and accumulated capital. The trickle-down of benefits is a merit of capitalism in the real world, and it works insofar as the distribution of income departs from the strict standard of reward for personal contribution to production" (Okun 2015: pp. 44-45). Similarly Friedman, who reminds us that "The chief characteristic of progress and development over the past century is that it has freed the masses from backbreaking toil and has made available to them products and services that were formerly the monopoly of the upper classes, without in any corresponding way expanding the products and services available to the wealthy. Medicine aside, the advances in technology have for the most part simply made available to the masses of the people luxuries that were always available in one form or another to the truly wealthy" (Friedman 2002: p. 170). Thus, it would be the imperfect feature of the ethics of rewards to reduce, at least in the first stage of development, inequalities among social classes, therefore generating the Kuznets curve (Kuznets 1955).

However, at a deeper analysis, some limits of capitalistic philosophy arise, such as the difficulty of people with scarce resources³³ to emerge and equally compete in that “game”; that means the system is unbalanced in favor of the owners of big capitals³⁴, and this problem is now amplifying because of the increase of economic inequality as shown by Piketty (Piketty 2014) and Stiglitz (Stiglitz 2016).

The issue becomes very relevant if, as Milanovic shows, the excessive social polarization of modern capitalism³⁵ can foster turning this paradigm first into a plutocracy (due to the great correlation between rich voters and political class (Stiglitz 2013)) and then into a political/authoritarian capitalism³⁶, where not only we have the problem of economic and social inequality, but also the loss of freedom and democratic values.

We should not underestimate the possibility of such a regression, because the Serbian economist suggests that the main features of political capitalism are economic efficiency and an ever growing rate of economic development; consequently, if the GDP approach continues to have a leading role in capitalistic democracy (so that economic performance will have more and more importance compared to the other values), and if the range of inequality continues to widen according to Piketty’s mathematical forecasting³⁷, it will be highly likely that a transition towards the authoritarian version will be the natural evolution of this model.

If efficiency is usually considered the main feature of the capitalistic paradigm, equality instead represents the strong point of socialism. Nevertheless, it is important to underline that, even though Milanovic’s results showed that socialist countries registered less inequality rates than the capitalistic ones³⁸, the failure of socialism seems to suggest that too much equality not only is inefficient because of the lack of incentives, but most probably also because it does not reflect the true nature of human beings, who could feel the need to preserve their own diversity.

However, despite the clear success of capitalism, we cannot jump to conclusions that this paradigm is surely the perfect one and consequently no adjustment aimed at preventing a potentially increasing inequality is necessary.

The proposals of the reform suggested by Piketty (Piketty 2014), Stiglitz (Stiglitz 2016), Milanovic (Milanovic 2019) and Atkinson (Atkinson 2015) should be strongly valorized if we want to prevent that the intrinsic nature of market capitalism (i.e. its inclination to efficiency) transforms society into the okunian feared giant vending machine (Okun 2015: p. 116), thus downgrading people to mere accounting items trying to maximize their utility.

³³ Where the term resource is used in the senian meaning.

³⁴ Again in a wide sense, i.e. both economic and social capital.

³⁵ A consequence of the features of liberal meritocratic capitalism, which therefore distinguishes it from its “ancestors” (classical capitalism and social-democratic capitalism). The polarization is due to homoploutia (word coined by Milanovic to mean that now the high capital earners are high labour earners too), to homogamy (i.e. the tendency to assortative mating), and to an intergenerational transmission of a wider capital (now also including the social capital). See Milanovic 2019.

³⁶ Variant of capitalism theorized by Milanovic, characterized by either “single party rule” (which means that other parties do not exist or are irrelevant) or “one party in power” (which means that the multiparty system exists, but one party always wins elections; the winning party must be “born” after a successful struggle for national independence), by an efficient bureaucracy (administration), by the absence of the rule of law, and by the autonomy of the state. The Author recognizes Deng Xiaoping, Chinese leader from the late 1970s to the mid 1990s, as the founder of political capitalism. Milanovic locates this form of capitalism not only in China (historically the first example of political capitalism), but also in Vietnam, Malaysia, Singapore and Laos. In Africa, this variant is located in Algeria, Tanzania, Angola, Botswana, Ethiopia and Rwanda. For details, see Milanovic 2019: pp. 138-139, table 3.1.

³⁷ We are referring to the relations $r > g$, where r is the annual rate of return to capital (profits, dividends, interests, rents and others capital incomes) and g is the growth rate of output and wages; if the former exceeds considerably the latter, then past heritages recapitalize faster than the production and income process; therefore, a likely reason of the widening of economic inequality could be linked to that formula (Piketty 2014).

³⁸ For countries which implemented this economic model, Gini coefficient ranging between 0.2 and 0.33, that means 6-7 basis points lower than countries which, in the same period, established the capitalistic paradigm; thus, socialism reduced inequality of about a quarter compared to a capitalistic society (Milanovic 2012: pp. 71-72).

We are not simply referring to the proposals already approved by capitalistic proponents (Friedman 2002), for example those which focus on preventing the constitution of non-necessary monopolies (aimed at avoiding limitation of freedom³⁹) and the negative externalities (aimed at avoiding potential damages to society, such as environmental pollution), but more specifically to the adjustments which target full self-realization of the person and not only market efficiency.

Only from this perspective, is it possible to agree with the suggestions of the Authors who appreciate, for example, that the State is the last instance employer for everybody seeking a job⁴⁰, thus avoiding that it is the economic situation to influence the opportunity to work⁴¹, and also the possibility of setting a minimum wage, an unemployment benefit and an inclusion income, which permits people not only to save themselves from poverty, but also to fully participate in the life of their community⁴², allowing them to reach the top of the pyramid of needs (Maslow 1954). In addition, the opportunity to consider the progressive tax on capital (at international level⁴³) as appropriate; if it is likely that increasing tax rates for the wealthy could bias their saving and investment choices, so generating inefficiency (Friedman 2002), there is also the possibility that rich people use the incentive motivation as a justification (after all understandable) to preserve their status quo. And finally, the chance of a universal basic inheritance (which is, despite the difficulties in implementing it⁴⁴, the only solution that really allows to achieve a substantial equality of opportunities), and of substituting an inheritance tax with a progressive one on capital incomes all lifelong⁴⁵.

We can agree with all these proposals only if we choose to move from the utilitarian philosophy and the GDP method to Sen's approach along with the statistical tools which better reflect the idea of the Indian economist; only in this way is it possible to avoid that practical matters, such as Okun's leaky bucket⁴⁶ issue, can influence the feasibility of the above-mentioned adjustments.

Indeed, it is Okun himself who underlines that in some cases, for example with regards to moral rights, society can accept clearly inefficient solutions⁴⁷, also using three justifications to support what otherwise would seem an irrational choice from an economic point of view⁴⁸.

³⁹ In this case, also free-market supporters accept Government intervention and paternalism, for example in order to adopt an antitrust law.

⁴⁰ Not necessarily full time and permanent jobs, but certainly a kind of employment producing social utility and common goods. It is clear there are a lot of useful jobs not valorized enough in the present socioeconomic paradigm: for example land care, marginalized people assistance, etc. (for details, see Atkinson 2015).

⁴¹ Since employment is now a way of achieving social inclusion and personal dignity and it is no longer related only to an economic dimension.

⁴² Also in this field it would be better to adopt Sen's perspective of considering real poverty as a capability deprivation, and therefore use the expression "adequate income" instead of low income, because only the first concept is sensitive to the issue of converting income into capabilities; thus, it is important, at least in the developed countries, to fix the legal minimum wage and welfare benefits according to the relative poverty threshold, and not to the absolute poverty one (Sen 1992; Sen 1999).

⁴³ Because, after globalization, there are no longer borders for capital (Piketty 2014).

⁴⁴ Which are, particularly, the definition of the minimum amount of such a capital, of its means of financing, of possible restrictions for its use, and of when adulthood is reached in order to receive that inheritance (Atkinson 2015).

⁴⁵ "The key element in the proposal is that people are taxed on the amount received rather than the amount left, as happens under the current system. A tax on giving would be converted into a tax on receiving. [...] With a progressive rate structure, this switch would provide a direct incentive to spread wealth more widely. People could pass on their wealth tax free if it were transferred to people who have received little so far in lifetime receipts. In this way, it could contribute to reducing both gender inequality and inequality across generations. [...] the new tax would be patently directed at seeking to secure a more level playing field and thus contributing to reducing inequality of opportunity" (Atkinson 2015: p. 196).

⁴⁶ The bucket leaks because of "the various inefficiencies of the tax-transfer reshuffle – administrative costs, reduced or misplaced work effort, distorted saving and investment behavior, and possible changes in socioeconomic attitudes" (Okun 2015: pp. 93-94).

⁴⁷ Rights are intrinsically inefficient for several reasons: it is not possible to economize their use by pricing them; they do not invoke the economist's principle of comparative advantage; they are not distributed as incentives, or as rewards and penalties (Okun 2015: pp. 6-10).

Furthermore, the conditions of the First theorem of welfare⁴⁹ are so tightening that actually the market itself cannot reach optimal allocation without the help of the Government (for example, with regards to the minimum wage proposal, the common opinion is that it could increase unemployment and thus prevent full employment. On the contrary, Atkinson believes higher wages should improve the productivity of workers (Atkinson 2015); the positive correlation between wage and productivity is usually connected to biological⁵⁰ and motivational factors⁵¹).

Milanovic also suggests that, since globalization has changed the labour market and the welfare state, it is necessary to rethink them, now considering the migration matter too (Milanovic 2019); migratory movements are in fact showing a new face of inequality, the one among countries⁵², which is no longer possible to solve with nationalistic tools (because this solution seems slightly unlikely in a globalized world⁵³, and even if this autarchic choice should lead to some positive results for a country, it would be a step backwards in the development path of mankind).

Therefore, we have to recognize the clear shift in the labour market⁵⁴ and in the welfare system⁵⁵, and consequently it is no longer possible to use an approach exclusively economic if we want to solve those matters that first of all regard human progress and only then economic development.

⁴⁸ We are referring to the libertarian justification (“many rights protect the individual citizen against the encroachment of the state, and thus convey benefits that far outweigh any cost of economic inefficiency”), the pluralistic justification (“the network of relationships in a viable society had to rest on a broad base of human motives and human interests. Material gain is (at most) one of the many motives propelling economic activity. In turn, the economy is only one aspect of society and must be embedded into a successful society. [...] Rights can then be viewed as a protection against the market domination that would arise if everything could be bought and sold for money”), and the humanistic justification (“recognition of the human dignity of all citizens”. [...] Once political and civil rights are seen as integral to human dignity, it becomes clear why they shouldn’t be bought or sold for money”). See Okun 2015: pp. 10-21.

⁴⁹ These conditions are no externalities, perfect competition (individuals and firms are price takers), perfect information and perfect rationality of agents. However, in real life, these conditions never occur and therefore the market usually fails because of monopoly, externalities and asymmetric information.

⁵⁰ Leibenstein underlines that better paid workers are able to afford more or better food; this improves the health and energy of workers and thus their productivity (Leibenstein 1963).

⁵¹ Atkinson refers to the Akerlof’s and Stiglitz’s efficiency wage theory, by which a higher wage should solve the classical issues about principal-agent model, due to asymmetric information (i.e. adverse selection and moral hazard). See Akerlof and Yellen 1986; Stiglitz and Shapiro 1984.

⁵² The Author defines migrations “as the movement of one factor of production (labor) when globalization takes place in conditions of uneven mean incomes between countries” (Milanovic 2019: p. 193).

⁵³ The precondition for creating a welfare system and maintaining it stable is the homogeneity of values among the members of the community that benefit from that system; however, migrations, favored by globalization, have introduced in native communities people with different rules, behavior and life experiences (or at least felt as different), thus weakening the welfare system; according to Milanovic, the main issue is the present configuration of citizenship, that can be seen, in an economic sense, as “a joint monopoly exercised by a group of people who share a given legal or political characteristic that gives rise to the citizenship rent” (Milanovic 2019: p. 187). Such a configuration of that juridical institute generates a great flow of foreign workers, who differ in culture, language, behavior, values, ways of interactions, and consequently can create dissatisfaction, social tensions, loss of confidence, or even lead to civil war. The tight link between citizenship and welfare state is then in stark contrast with globalization, because “the fact that there is a welfare state with benefits assigned to citizens only and thus forming part of their citizenship rent (in some cases a substantial part) cannot but be in tension with the free movement of labor” (Milanovic 2019: p. 218).

⁵⁴ No longer characterized by full time and stable jobs, but flexible and fixed-term: “the twenty-first-century labour market is more complex, and this has implications for how we think about employment as a route out of poverty and full employment as a means of assisting us on the way to less inequality” (Atkinson 2015: p. 137).

⁵⁵ Focusing particularly on the double adverse selection issue pointed out by Milanovic, according to which, at national level, the polarization between the poor and the rich enhances private social welfare and incentives the rich to voluntarily abandon the public social system (thus leaving only those who would have insurance premiums too high, which could in turn lead to many of them abandoning the system completely), whereas, at international level, adverse selection is due to the fact that more qualified and ambitious migrants go towards higher social mobility countries, while those less qualified and less ambitious choose more egalitarian countries, which usually have less income mobility, but in return more inclusive welfare systems (Milanovic 2019).

Only putting aside orthodox theories, is it possible to hypothesize the fusion between the two main models as an effective solution for the problems of modern society; liberal socialism⁵⁶ suggested by Rignano (Rignano 1901) in Italy and recently revived by Maccabelli (Maccabelli 2007) seems a paradigm capable of enhancing both the strength of capitalism (because the free-trade market keeps on being the main regulatory mechanism of economic activities⁵⁷) and of socialism (because it suggests a reform in inheritance law⁵⁸ and it valorizes the role of mutual societies and the sharing of capital between workers and employers⁵⁹).

In analyzing inequality it is also necessary to face the potential impacts of technology on the future socioeconomic order. Although we cannot deny that technological progress allowed for a rapid giant improvement in the quality of life, it is also true that some threats could be hidden behind the intrinsic nature of capitalism combined with technological innovation. As acknowledged, the main aim of capitalism is to continuously increase profits, which are obtained mostly by reducing the costs of production factors and by improving production processes. However, even though technology has improved productivity (and, let's not forget, it has also reduced dangerous and heavy tasks), it has at the same time substantially decreased the number of jobs.

This situation will be far more evident in the future; Atkinson highlights how “in their study of the future susceptibility to computerization of US jobs, Carl Benedikt Frey and Michael Osborne (Frey and Osborne 2013) conclude that 47 per cent of all US jobs are in the high-risk category, meaning that these occupations are potentially automatable in coming decades⁶⁰. [...] The high-risk jobs are located particularly in office and administration, sales, and service categories. At low-risk were jobs in health care, education, education/legal/community services, arts and the media. Not surprisingly, these require particular human skills such as social perceptiveness, negotiation, persuasion, and originality” (Atkinson 2015: p. 97).

⁵⁶ We can find the first attempt of combination between the two main models in John Stuart Mill, who published in 1848 the *Principles of Political Economy*, in which, after having underlined the difference between the production field and the distribution field, states that only the first is governed by universal law, while the second is determined by social and institutional framework and therefore can be set up properly in order to avoid excessive and arbitrary inequalities. Distancing from the Marginalist philosophy, where both fields are governed by trade and market rules, the Author finally succeeded in legitimizing the instances of higher equity in the distribution of wealth, and consequently, in finding an alternative solution to the collectivism and to the Marxian perspective of a radical overthrow of liberal society and market economy institutions (in fact, the Marxian socialists did not believe in the distinction between the two fields, and so they preferred the overthrow of the relations of production in order to transform the distributive mechanism). Thus, the idea arose that liberalism and socialism must not necessarily be antithetic, but that they can easily integrate and complete each other (Mill 1848). However, it was Léon Walras who established the official union between the two paradigms, thanks to the introduction of the concept of social economy; the Author in his *Notice autobiographique* (1870-1892), distinguished economics in three categories: - pure economy, studying trade rules (associated to the natural laws, as does physics); - applied economy, analyzing the production of wealth (division of labour, industrial organization); - social economy, investigating distribution matters (also involving ethical aspects). These three fields are then characterized by different levels of abstraction and are correlated with other contiguous (not economical) disciplines: there is higher proximity to natural science (especially physics) for pure economy, to social science for applied economy, and to philosophy for social economy (Legris 2000). Thanks to this classification, Walras was able to state in his *La méthode de conciliation et de synthèse* that the aim of social research is to find an economical organization able to ensure both a production as high as possible and a distribution of social wealth as fair as possible (Walras 1896).

⁵⁷ In fact, Rignano states the real issue is not the free-trade market, but rather the capitalistic philosophy which, by concentrating the resources on a few individuals, precludes a fair start in the “economic competition” (Rignano 1901).

⁵⁸ Since the transmission of wealth is the main obstacle towards equality of conditions, Rignano suggests an inheritance tax specifically designed not to discourage the individualistic motivation to capital accumulation and, at the same time, to allow a uniform distribution of wealth across generations.

⁵⁹ Despite the doubt of some economists (Okun 2015; Milanovic 2019), Rignano believes that a higher involvement of workers should improve economic productivity (Rignano 1901).

⁶⁰ However, the problem is not only unemployment, but also the loss of the power of trade unions for the employees still working because “robots do not go on strike. With a smaller labour force and more mechanized production, the firm will have greater control and less need to negotiate with trade unions” (Atkinson 2015: p. 116).

Because of the technological development we will have to face, as foreseen by Meade many decades ago (Meade 1964), a crucial distributive dilemma: economic growth benefits will be mostly correlated with an increase in profits; consequently, computerization will widen inequalities.

Nowadays, also Sapelli says that “even though the quantity of living work is reduced, this should bring about an exponential growth in surplus value and therefore a dizzying increase in social differentiation [...]. Machines will be owned by 0.1% of the population, 0.9% will manage them and 99% will be employed in the small amount of non-automated work available or will languish in the pits of unemployment” (Sapelli 2019: p. 74).

So, the technological unemployment dilemma⁶¹ cannot be ignored any longer and it can be dealt with from two antithetical perspectives: we could accept the idea of the three “lump” fallacies suggested by Milanovic (Milanovic 2019), according to which today we cannot know the exact number and the kind of resources, innovations and needs that there will be in the future⁶², and so we are not able to forecast how many and which jobs could be created by combining those factors; if that were the case, the matter could be easily solved by rebalancing the mismatching between competences and technology as underlined by Piketty (Piketty 2014) and Stiglitz (Stiglitz 2016), and consequently we should follow Atkinson’s suggestion to consider technological innovation no longer an exogenous variable, but endogenous; therefore, policy makers should set up policies specifically aimed at developing the technologies able to increase employment⁶³ and not to reduce it (Atkinson 2015).

The other perspective is more radical and it suggests how the engine of capitalism could also be the main responsible for its end; in fact, many Authors seem pessimistic about the possibility of the joint survival of technology and living labour. Specifically, they forecast that the latest innovation, i.e. informatics, will wipe out the market mentality and the property, and will break the relationship between wage and work⁶⁴.

Informatics would allow the modern communication/energy matrix⁶⁵ to be connected and managed through the Internet of Things⁶⁶ infrastructure, from which a new socioeconomic paradigm would arise, characterized by a collaboratist nature and no longer based on scarcity, but on an abundance of resources (this would be possible thanks to the gradual reduction of costs to zero, to the sharing economy⁶⁷ and to the birth of the “prosumer”⁶⁸).

⁶¹ This issue was already highlighted by Keynes in the 1930s (Keynes 1932, available at <http://www.econ.yale.edu/smith/econ116a/keynes1.pdf>).

⁶² For example, twenty years ago we could never have imagined the invention of the smartphone and the correlated need for one.

⁶³ Especially enhancing the human dimension of services.

⁶⁴ “Info-tech drives labour out of the production process, reduces the market price of commodities, destroys some profit models and produces a generation of consumers psychologically attuned to free stuff” (Mason 2015: p. 220).

⁶⁵ Rifkin reminds us that historically all social infrastructures are made up of three inseparable elements – a communication medium, a power source and a logistics mechanism – the lack of which precludes society to run properly. In the 19th Century the communication/energy matrix included the steam engine press, the telegraph, railways and an industrial coal-powered system; instead, in the 20th Century it included the telephone, the radio, the television, automobiles and oil (Rifkin 2014).

⁶⁶ The concept of Internet of Things was coined in 1999 by British engineer Kevin Ashton; IoT is an integrated infrastructure resulting from the fusion among a Communications Internet, an Energy Internet and a Logistics Internet.

⁶⁷ Resource sharing will determine a change in the mind of people, from the possession to the access of things, thus generating the decrease of benefits correlated with private property. Nowadays, the best example of this change of perspective is “car sharing”, which has determined an important reduction in the number of owned cars. Not only has this service weakened the concept of private property, but it has also reduced the number of vehicles on the road, so decreasing gridlock and pollution (with regards to the latter, less environmental degradation is due not only to less vehicles on the road, but because the cars used for sharing are often electric).

⁶⁸ This concept was coined by Alvin Toffler in 1980 in his book *The third wave* and it is a fusion between the word producer and consumer. Rifkin believes that, in the future, people will be able to make things by themselves in an affordable way thanks to 3D printing; this kind of production is more efficient than the traditional factory manufacturing, because the latter is a subtractive process, while 3D printing is an additive one (that generates zero waste of commodities). Moreover, 3D printers can make their spare parts, use renewable

Therefore, the new IoT infrastructure seems specifically set up for Collaborative Commons, since it is characterized by openness and inclusivity, inclination towards peer production on a lateral scale and renewable energies; this kind of approach enhances collaboration, synergy and consequently social capital too (Rifkin 2014).

In Collaborative Commons, the new economic figure of the prosumer (in the place of producers and consumers) and the sharing value (instead of the market value) should lead to a higher equality among the members of society.

Although Rifkin and Mason's solution (also appreciated in Italy by Sapelli) seems still to be too pioneering and, currently, to have low probabilities of being realized, we have to recognize that their idea has the merit to valorize both efficiency and equality, and finally to allow the overcoming of the Okun tradeoff, to which all the main models (even if adjusted) are inevitably subjected.

Furthermore, the similarity between Rifkin's model and Gandhi's⁶⁹ points out how comprehensive Rifkin's proposal is, since it now permits to recover the ethical features of economics too, which are generally "forgotten" in utilitarian philosophy and in capitalistic paradigm.

A model with those characteristics should foster the transition from GDP to other indicators more representative of the progress of modern societies and enhance the Capability approach, so that, finally, it can be considered an adequate substitute for utilitarian philosophy⁷⁰.

Among those who foresee the end of capitalism, Mason seems the most confident since he trusts in a spontaneous transition towards the new collaborative system; as capitalism was born and has survived until now in a natural manner⁷¹, so the new socioeconomic order will also arise and develop spontaneously thanks to the intrinsic nature of technology (Mason 2015).

Instead, not so confident seems Rifkin, since he does not trust in the spontaneity of change, but believes that an adequate governance, favoring the building of the new order, is necessary.

"We have been so convinced of the economics of scarcity that we can hardly believe that an economy of abundance is possible. But it is. New communications technologies are turning the broadcast spectrum from a scarce resource to an abundant one, just as with information, renewable energy, 3D printing, and online college courses. The journey to an economy of abundance, however, is cluttered with roadblocks that could delay and even derail the collaborative era. The challenge is finding a governance model that can take society into the new paradigm" (Rifkin 2014: p. 106).

However, Rifkin's worries can be easily faced thanks to the new branches of economics now also involving more humanistic subjects, such as psychology, sociology and anthropology. Behavioral and experimental economics are questioning the mainstream regarding the full rationality of economic agents and proposing new alternative theories (Kahneman and Tversky 1979; Bell 1982; Loomes and Sugden 1982; Thaler 2016) to explain the real reasons behind the individual choices, which are more and more correlated with equity matters (as shown by the ultimatum game and its

materials and open-source software, so available to everyone. "The new 3D printing revolution is an example of extreme productivity. It is not fully here yet, but as it kicks in, it will eventually and inevitably reduce marginal costs to near zero, eliminate profit, and make property exchange in markets unnecessary for many (though not all) products. The democratization of manufacturing means that anyone and eventually everyone can access the means of production, making the question of who should own and control the means of production irrelevant, and capitalism along with it" (Rifkin 2014: p. 67).

⁶⁹ Rifkin's idea of a lateral peer production model is not really new; as also underlined by the Author (Rifkin 2014: p. 75-78), Gandhi had already seen the issues correlated with the economic models emerging at that time (capitalism and socialism); even though Gandhi had understood that both economic models would have led to centralized control over the production and distribution process, the championing of a utilitarian concept of human nature, and the pursuit of ever more material consumption as an end in itself, he could never have foreseen that the success of those (dangerous) models would have been inevitable because of the communication/energy matrix of those times, which had promoted a centralized management with top-down command and control and a vertical integration of economic activities. However, according to Rifkin, Gandhi's vision should finally be realized thanks to the power of the IoT.

⁷⁰ For further analysis on the issue of the weakness of ethical perspective in modern economy, see Sen 1988.

⁷¹ Mason thinks the survival instinct of capitalism is due to the combination of Kondratieff's long waves theory (Kondratieff 1925) and of the marxian theory of counter-tendency in answer to the decline of the rate of profits (Marx 1990).

variants (Lanteri and Ottone 2009)) and affected by many biases due to bounded rationality (Simon 1955).

Once acknowledging these new features of the economic agent, a useful help can be found in Thaler's proposal, known as *libertarian paternalism*, suggesting the use of a "nudge"⁷² to "freely guide" inevitably ir(rational) individuals towards those choices able to promote the wellbeing both of the agent and the whole of society (Thaler and Sunstein 2008).

If the *choice architects*⁷³ decided to set up the options in order to promote those choices supporting higher equality, solidarity, business ethic, economic and environmental sustainability, then most likely informatics could really contribute to the transition towards the new paradigm suggested by Rifkin and Mason, thus making the "collaboratist" solution based on the lateral-scale production and on the abundance of resources not so utopian any longer.

Either in a spontaneous way or by a nudge, Sapelli says that the new paradigm should recover the common goods philosophy (but according to the Author's definition⁷⁴) and should have a positive view of the non-profit sector⁷⁵ (since it would be the only business model able to survive naturally in an economic system not based on profit philosophy any longer); if that were the case, a kind of economy very different from the mainstream would arise, which the Author suggests calling moral economy⁷⁶, a concept referring to "all activities stemming from people and things coming together with a view to a certain end [... and not leading] to the appropriation of profits by those who currently hold control and/or ownership of this association" (Sapelli 2019: p. 125).

However, the Author does not underestimate the Common goods tragedy matter, as theorized by Hardin (Hardin 1968), and therefore suggests that such a model would work better in a community than in a society (Sapelli 2019); but, the main problem, as Ostrom highlights, is that globalization is pushing the world in a completely different direction, from a communitarian dimension to more and more individualistic and heterogeneous societies (Ostrom 1990).

Nevertheless, in a globalized world, the "mutual trust" matter depends strongly, not only on the kind of social construct (i.e. community/society), but also on the related context, and it could be different according to the circumstances; such a factor is nowadays compulsory because we live in a context of scarce resources, so it could be precisely this situation to foster individualistic and utilitarian human nature.

Omitting momentarily to look into the true nature of human beings in the rawlsian original position, we can however attempt to hypothesize that a potential abundance of resources should most likely prompt people to behave differently from what now is the rule in modern society⁷⁷ (i.e. our behaviour would be very close to what we know is right even though we seldom respect it).

⁷² "A nudge [...] is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not" (Thaler and Sunstein 2008: p. 26).

⁷³ The term was coined by Thaler and Sunstein in their 2008 book, in which they state: "A choice architect has the responsibility for organizing the context in which people make decisions" (Thaler and Sunstein 2008: p. 22).

⁷⁴ "Goods that are defined as public not due to any form of state ownership, but because this form of ownership (not aimed at obtaining individual profit from the goods) is essentially cooperative, property of small or large social groups, and allows their reproducibility and use for all those who wish to gain access to them, in accordance with rules that ensure their infinite reproducibility" (Sapelli 2019: p. 134).

⁷⁵ However, Sapelli warns against confusing it both with volunteering (since "in voluntary organizations, once the purposes of self-reproduction have been achieved, nothing is left because no-one responsible for controlling and managing the association receives any salary or wages"; Sapelli 2019: p. 125) and with the third sector (since "this expression is equivocal because it gives the idea of duality and substitution: space for non-profit organizations opens up in areas that cannot be reached by the state and where it is not economical for private enterprise to operate"; Sapelli 2019: p. 123).

⁷⁶ This expression is attributed to the British historian Edward Thompson, who introduced it for the first time in his essay (Thompson 1971).

⁷⁷ On this matter, Milanovic reminds us that "such amoral behavior is necessary for survival in a world where everyone is trying to acquire as much money as possible and to climb higher in the social pyramid. Any alternative behavior seems self-defeating. [...] Anyone who remains inside the globalized and commercialized

The values of equality, equity, justice and dignity, proclaimed nowadays in many Constitutions/Declarations of rights and accepted at international level, are very often put aside because of the eternal fight to secure the (really scarce?⁷⁸) available resources.

All that seems even more irrational considering that all stakeholders should be better off thanks to a mutual transparent approach (as also suggested in business management by the open book accounting method).

As already mentioned, behavioural science found out that individuals feel the need to be part of society in an equity-based manner⁷⁹. Unless we believe hypocrisy is the true human nature, then incoherent behaviour in modern society (already shown by the analysis of GDP limits) is most likely due to the scarcity of resources.

Moreover, considering the ever increasing problem related to the change of the labor market so that it cannot guarantee the previous stability and safety any longer, recognizing the aging issue which further burdens on the welfare system (at least in the way it is now structured), and forecasting an ever-growing computerization of jobs, then we cannot preclude there will be a spontaneous change in people's mindset (thus the mutual trust, now necessary in order to make the system work properly, will not be essential any longer).

If we support a better quality of life, if we welcome the reduction of mortality and morbidity gained by technological progress, if computerization in the future should really lead to less working hours and more leisure time to use for improving relationships, if the shift towards renewable resources should make them abundant in a circular economy – fostered by something that today we can define in the best of cases (thanks to lateral thinking techniques⁸⁰) a “happy degrowth”⁸¹, which instead, from a different perspective, could be considered a real (social and human) growth – therefore why must we blindly trust in the present socioeconomic order and keep on “patching it up” to preserve it, while it would be easier to let ourselves be moved spontaneously towards a system really matching our values?

However, the transition towards such a paradigm could be delayed by the status quo bias⁸² (especially regarding those individuals who are at the top of the socioeconomic ranking); in fact, those who have succeeded thanks to the capitalistic philosophy could be afraid of introducing a model having a completely different measurement system, that most likely would downgrade their rank (at least with regards to the economic and social position); as Nussbaum highlighted⁸³, the USA (but also other countries) would rank differently, depending on whether GDP or HDI⁸⁴ is used, and therefore it

world has to fight for survival using the same means and the same (amoral) tools as everyone else” (Milanovic 2019: pp. 253-254).

⁷⁸ Jigmi Y. Thinley, Prime Minister of Bhutan states that “we have never had greater knowledge, technical capacity, material abundance, and productive potential to create a sane economic order and to achieve all its necessary conditions. We have the ability, for example, to feed everyone on earth healthily and sustainably. No one need go hungry!” (Foreword to the Report of the High-level meeting on Wellbeing and Happiness, UN, 2nd April 2012; see https://sustainabledevelopment.un.org/content/documents/617BhutanReport_WEB_F.pdf).

⁷⁹ This need can be clearly expressed by the phrase “keeping up with the Joneses” (where Joneses is a fictitious surname referring to the neighbor), used for the first time by the economist James Duesenberry in 1949 in his work *Income, Saving, and the Theory of Consumer Behavior (Economic Studies: No. 87)*, where he explained the “demonstration” effect theory; according to this theory, some consumers (especially from lower classes) buy luxury goods wishing to imitate the upper classes. Since this behaviour is in stark contrast with the rationality of the economic agent and with the demand law (by which the demand should be correlated positively with the income and negatively with the price of goods), it is likely that people need to feel at the same level as the other members of the community.

⁸⁰ The term was coined by the Maltese psychologist Edward De Bono (for details, see De Bono 1970).

⁸¹ Since, most probably, we are still bound to an obsolete indicator of performance.

⁸² Among the several biases found out by behavioral economics, the status quo bias refers to the situation in which “loss aversion helps produce inertia, meaning a strong desire to stick with your current holdings. [...] loss aversion operates as a kind of cognitive nudge, pressing us not to make changes, even when changes are very much in our interests” (Thaler and Sunstein 2008: pp. 69-70).

⁸³ The Author highlights how “the United States, for example, slips from number 1 in GDP to number 12 in the HDI” (Nussbaum 2011: p. 73).

⁸⁴ UN Report 2020 has shown a further decrease of the USA to position 17 in the HDI rank (see <http://hdr.undp.org/en/content/latest-human-development-index-ranking>).

is not easy to believe that anyone ranking in a high position would be ready to change the measurement system.

Another reason of the delay could be that an “imperfect” system is able to create a number of jobs higher than there would be when maximum efficiency is reached; in fact, imperfections can generate additional professional profiles, for example those⁸⁵ aimed at repairing potential damages caused by improper activities or at helping people to make very difficult choices⁸⁶, especially those choices affected by asymmetric information; a perfect system would not need all these human resources, thus reducing the number of workers. Hence, in an imperfect system, the GDP index, which appreciates any activity producing anything, seems the perfect evaluation method to justify the preservation of a socioeconomic system often in stark contrast with the values claimed by the members of the system itself.

Moreover, since human nature is characterized by positive and negative emotions, we cannot exclude that a model able to improve people’s conditions excessively could not be paradoxically accepted, because it would reduce the variety of emotions (eliminating some of the negative ones) and it would not reflect that nature any longer; i.e. – borrowing from Thaler – Humans would not be and would not want to become Econs (Thaler and Sunstein 2008).

“Indeed, sadness, pain, and stress might be inevitable during some of the experiences one must go through in order to build a good life. Army boot camp, graduate studies in economics, medical school, or dealing with the death of a parent are examples of unpleasant experiences that are nevertheless an essential part of life [...]. These emotional experiences and others are important contributors to current wellbeing in their own right. Yet feeling happy is better than feeling sad, and stress, worry, and anger reduce wellbeing at the time they are being experienced, even if they sometimes have payoffs in the future” (Deaton 2013: p. 75).

Unfortunately, Deaton’s words generate a considerable doubt about the real intention of people to get, despite their good will, a socioeconomic paradigm which would fit perfectly to the humanitarian values recognized at international level by now; conversely, such a paradigm would seem to have all the right requirements to be implemented.

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⁸⁵ Such as legal services, police protection, and services for restoring environmental degradation.

⁸⁶ Such as consulting services.

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