

Civil Economy: A New Approach to the Market in the Age of the Fourth Industrial Revolution

La economía civil: un nuevo enfoque del mercado en la edad de la cuarta revolución industrial

STEFANO ZAMAGNI

UNIVERSITÀ DI BOLOGNA

Artículo recibido: 18 de febrero de 2018

Solicitud de revisión: 4 de abril de 2018

Artículo aceptado: 27 de abril de 2018

Zamagni, Stefano (2018). Civil Economy: A New Approach to the Market in the Age of the Fourth Industrial Revolution. *Recerca. Revista de Pensament i Anàlisi*, 23, pp. 151.168.

Abstract

After explaining the reasons why we must urgently reexamine the foundations of the market economy, the article goes on to illustrate the main differences between the civil market and capitalist market models. It then answers the question of why, in the last quarter of a century, the concept of the civil economy has reemerged as a topic of public debate and scientific research. In particular, it highlights the reasons why the fourth industrial revolution postulates a civil market if the risks involved with the advancement of transhumanism are to be avoided. The article ends with an invitation to transcend the contradictions of the culture of libertarian individualism.

Keywords: fourth industrial revolution, civil market, transhumanism, libertarian individualism, reciprocity.

Resumen

Después de aclarar las razones por las cuales es urgente repensar las bases de la economía de mercado, el artículo continúa para ilustrar las principales diferencias entre el modelo del mercado civil y el modelo del mercado capitalista. A continuación, se responde a la pregunta de por qué en el último cuarto de siglo la perspectiva del discurso de la economía civil está resurgiendo en el debate público, así como en la investigación científica. Se presta especial atención a resaltar las razones por las cuales la cuarta revolución industrial debe desarrollarse desde un mercado civil si se quieren evitar los riesgos asociados con el avance del transhumanismo. El artículo termina con una invitación a superar las aporías de la cultura del individualismo libertario.

Palabras clave: cuarta revolución industrial, individualismo libertario, mercado civil, reciprocidad, transhumanismo.

INTRODUCTION

Among the many words in economic –and today, even political– lexicon, «market» is undoubtedly the term most frequently used in public discourse as well as private conversation. It is perhaps partly for this reason that this word is so often misinterpreted and subject to ambiguity, sometimes with dangerous consequences. Some examples are in order. There is confusion between market as a place where goods and services are exchanged and market as a model of social order; between market as an impersonal mechanism for coordinating purchases and sales by a multitude of individuals and market as a specific social institution based on a particular cultural matrix; between market as a cure and solution to all of society's ills and market as a remote cause of the same ills; and finally, between the market studied by the economic sciences and the one addressed by the other branches of social science.

These and other points of confusion would not be so problematic if they were purely limited to the realm of contrasting ideas and opinions. The trouble arises when the same uncertainty reaches the level of decision-makers in the political and business spheres. For instance, if a policy-maker wants to introduce a certain provision based on the belief that the market works as described by formal economic theory, without realizing the optimal market conditions indicated by the two fundamental theorems of welfare economics are idealized and impossible to fulfill, obviously, the consequences of that provision could only be negative. Is this not what happened with the economic and financial crisis that exploded in 2008?

The sometimes fierce or exaggerated criticism of the global market order increasingly voiced by the man on the street today, however naively or inaccurately, reflects the widespread discomfort with an economic theory that channels intellectual energy and huge financial resources into honing the awareness of an idealized market that will never receive any real attention in our modern society. It's a bit like the discomfort that would surround a field of medicine devoted to studying pathologies that would never spread in a certain population, rather than working to treat and cure the diseases already rampant within that population.

This essay was written with a twofold intent. On one hand, to help counter the negative trend described above. At a time when market forces con-

trol the planet, it is extremely urgent for us to understand the essence and nature of the market; when and why the market economy came into existence; how it has evolved over time; and what challenges the market must face and possibly overcome today if it is to remain an instrument of civilization and a space for the humanization of economic relations.

On the other hand, the intent is to dispel the myth that economic knowledge is exclusively relevant to insiders or experts, as though they were the only ones capable of mastering and comprehending the mysteries and technicalities of the discipline. This is not only factually untrue, but also unacceptable to anyone who takes democratic principles to heart, because economic issues concern all members of *civitas*, either as actors or beneficiaries of the actions of others. Democratic citizenship loses its meaning unless all citizens are guaranteed universal access to basic economic knowledge. It is unjust to deprive the majority of citizens of an understanding of the economic processes in which they participate and that influence their everyday lives.

Precisely because today, there is no plausible alternative to the market economy, it is essential to raise awareness of all the premises of value, strengths and weaknesses of this fundamental institution. Otherwise, the ability to defend the reasons for freedom would be severely compromised. In the following passage from Marcus Tullius Cicero, by replacing the word «city» with «market», we would obtain perhaps the most comprehensive and relevant definition of what the market really is:

Cities, too, could not have been built and peopled but for the association of men, in consequence of which laws and rules of moral conduct have been established, as also an equitable distribution of rights, and a systematic training for the work of life. These things have been followed by mildness of disposition and by modesty, and the consequence is that human life is better furnished with what it needs, and that by giving, receiving, and interchanging commodities and conveniences we may have all our wants supplied (Cicero, 1888: 111).

On the pages that follow, I will explain the exact meaning of the key words in this passage and propose a solution to the stifling dichotomy that sees the domination, on one hand, of neoliberal theory, which claims the markets almost always run smoothly and intervention with special regulations is unnecessary, and on the other, of neo-statist theory, which believes the markets nearly always fail and the visible hand of the State must intervene. Instead, I will demonstrate that, precisely because the markets often do not work well (as everyday reality confirms), intervention is necessary

to eliminate the causes of the various failures instead of simply correcting their effects, which is the preferred response. As I will explain at the end, this is the solution favoured by those who approach the market from the viewpoint of the civil economy. Over the course of its rapid evolution, the market economy has transformed human relations. The market is not only (or rather, not really) an efficient mechanism for regulating trade. It is also (and perhaps above all) an ethos, a lifestyle. The market as a model for social order arose from fifteenth century civil humanism and developed its own humanism. One must understand this in order to realize what is happening right before our eyes, and to prepare for the great challenges our societies will face due to globalization and the fourth industrial revolution.

1. FROM THE CIVIL MARKET ECONOMY TO THE CAPITALIST MARKET ECONOMY

When can it be said that a society's economic activity is organized according to the market model? In other words, what are the fundamental components of the market as a social institution? It is well-known that economics are basically the problem of *what* to produce (what goods and services the people who live in a society need or want to be produced); *how* to produce (what technology will be used, and how labor will be organized to carry out multiple production plans); and *for whom* to produce (which social groups should receive the goods produced, that is, how these goods should be distributed among all of the participants).

Historically, there have been three solutions to the economic problem (Zamagni, 2017a, 2016a, 2011a). The oldest is the traditional economy, or an economy based on tradition and the community principle. Over time, this solution has seen a plurality of variations. One was the sacral hierarchy. Starting in the fifteenth century, however, continental Europe began to adopt the market solution we are examining in this paper, while the October Revolution in Russia (1917) started the spread of the command economy based on central planning. In fact, until the fall of the Berlin Wall (1989), around 60 % of the world's population lived in countries that used the command economy model, with limited success, to answer the questions of *what*, *how* and *for whom* to produce.

So this establishes the first point: the market economy has not existed always and everywhere, even if it is the only remaining form of economic organization today the sole exceptions being Cuba and North Korea, as well

as the few territories still characterized by the prevalence of traditional economic models. This does not mean, however, that there is only one way the market economy can be implemented. The latter is merely the genus, and many species are possible, each depending on a specific cultural matrix. For instance, there are profound differences between the Anglo-Saxon and continental European models of the market economy. The former is founded on a clear separation between the economic and social spheres. «Business is business», Chester I. Barnard (1938, 1958), the renowned California business theorist, taught in the 1930s, meaning solidarity and social justice are excluded from the market domain. Philanthropic institutions are the bridges that link the two spheres. The underlying conceptual framework of the European market economy has been substantially different from the outset, in that the company has never been only about business: consider the European phenomena of industrial districts, mutual aid companies, cooperatives and public enterprises. But above all, the European model is founded on the idea that the market is capable of harboring, along with the exchange of equivalents, the principle of reciprocity.

From the late sixteenth century, the civil market economy –directed towards the common good– began its transformation into the capitalist market economy, though the definitive triumph of capitalism as a model for social order did not come until the industrial revolution. Capitalism gradually replaced the logic of the common good with that of the total good, that is, the «profit motive»: productive activity was directed to a single objective, the maximization of profits to be distributed among investors in proportion to their share of the capital. With the industrial revolution, the principle of *fiat productio et pereat homo* (production at the expense of man) was established, sanctioning the radical separation between suppliers of capital and suppliers of labor and definitively abandoning the principle of *omnium rerum mensura homo* (man is the yardstick of everything), which was the foundation of the civil market economy at the time of its birth in the fifteenth century. The simplest way to understand that the profit motive as such was not a constituent element of the market economy is to refer to the writings of the civil humanists –such as Leonardo Bruni, Matteo Palmieri, Antonino of Florence and Bernardino da Feltre– and the civil economists of the eighteenth century –Antonio Genovesi, Giacinto Dragonetti, Pietro Verri and Giandomenico Romagnosi. The constant theme in their work is that the activities of the market are directed to the common good, from which alone they derive their complete justification (Zamagni, 2011).

It is worth recalling Saint Bonaventure of Bagnoregio's early analysis of the market's civil purpose –anticipated in the *Summa* of his teacher, Alexander of Hales– and the principles observed in the sphere of economic action: the precedence of the community over individual interests; the centrality of the basic needs which must be fulfilled before desires; and the possibility of deviating from one of the economic prohibitions which reached their height in the era: *ratio temporis*. The Franciscan minister general defined the market as an *opus civile*. Saint Bonaventure's definition of the «good economy» appears in the following precept: «Necessary works are always preferable to less useful works, and the better to the good; and the excellent to the better, with the exception of useful and urgent works» (Saint Bonaventure, 1882-1902: 48). On the other hand, Saint Thomas Aquinas, a pupil of Albertus Magnus, took a far more cautious stance. While recognizing the merits of the market, the great Dominican wrote that «Thus, in such a city, civic life will necessarily be corrupted» (Saint Thomas Aquinas, 1982: 76-77).

To preempt any misconceptions, note that the two models of the market economy (civil and capitalist) are not differentiated by the three mechanisms that ensure their functioning –division of labor, growth, freedom of enterprise–, which are the same in both cases. What changes are the goals of the actors operating in each market, and consequently, the functions the same mechanisms must fulfill. For instance, the division of labor is no longer –as in the civil market– a way of ensuring the inclusion of less skilled workers in the productive process, but a method of discriminating between categories of workers to boost the system's productivity. Some memorable pages were authored by Charles Babbage, the «engineer» of the first industrial revolution, who, in contrast to what Adam Smith wrote in the *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), maintained that the great advantage of the division of labor was that it allowed masses of illiterate –or semi-literate– yet physically strong workers to participate in the productive process without the need for specific investments in human capital. Thought was only required at the top of the corporate structure. The functions assigned to the other two pillars of the market were similarly distorted. In particular, the difference lies in the understanding of the meaning of work. In the Franciscan school of thought, work is grace rather than condemnation or punishment. Saint Benedict certainly valued work, but from a penitential perspective. The Franciscans replaced the Benedictine *ora et labora* (pray and work) with «pray by working and work by praying». The *Testament* of Saint Francis reads: «And

I worked with my hands, and I still desire to work; and I earnestly desire all brothers to give themselves to honest work. Let those who do not know how to work learn, not from desire to receive wages, but for example and to avoid idleness» (1226 [Acts 20-21]: 125).

In the late eighteenth century, the capitalist concept of the market became dominant until acquiring both cultural and praxic hegemony. The ideology of the civil economy halted with the truly remarkable contribution of Genovesi (1765-67), the professor granted the chair of Economics, the first of its kind in the world, at the University of Naples in 1753, it was called the chair of Civil Economics and his Neopolitan students –Giacinto Dragonetti, Ferdinando Galiani, Gaetano Filangieri–, as well as the illuminists of the school of Milan –Pietro Verri, Cesare Beccaria, Gian Domenico Romagnosi, Carlo Cattaneo, Melchiorre Gioia and others–. The progressive and awe-inspiring expansion of market relations over the past two centuries ended up reinforcing the pessimistic view of human nature already theorized by Thomas Hobbes and Bernard Mandeville, who argued that only the harsh laws of the market could tame the warlike and anarchist impulses of mankind (Zamagni, 2011).

How could this have happened? Up until modern times, the Middle Ages and Humanism placed virtue ethics at the core of individual and societal life, a combination of Aristotelian, Stoic and Christian ethics masterfully synthesized by Saint Thomas. The main idea was that despite sin and vice, human beings are capable of virtue, that is, performing deeds because they are good in themselves. With the Lutheran Reformation, the Augustinian doctrine, which had certainly been a foundation of Christian humanism until then, but not the only or the main one, spread and became dominant. Man is so steeped in egotism that he is actually incapable of virtue, especially in the political and economic spheres. Hence the Hobbes/Mandeville/Smith/Bentham line of thought. From this perspective, virtue ethics are a legacy of medieval *Christianitas* and therefore something to get rid of. The ethics of modern capitalism, focused solely on individual interests and the role of the «sad passions» –as Baruch Spinoza identified them (Delauze, 1980: 25, 1990: 242)– ended up cementing the anthropological impoverishment which can be observed today (Zamagni, 2018; Vera Zamagni, 2011).

The spread of this caricatural view of human nature helped to fuel a dual misconception. On one hand, the idea that the sphere of the market overlaps with that of egotism, with the space in which everyone pursues, at best, their individual interests without a care for anything else. On the other hand, the idea that the sphere of the State overlaps with that of solidar-

ity and collective interests. It was on this foundation that the well-known dichotomous State-market model was erected, a model which identifies the State with the sphere of public interests –as if private individuals were incapable of working towards objectives which could be useful to society– and the market with the sphere in which only private interests are pursued. The most harmful consequence of this model, now and in the past, is that the market is only asked to be efficient; that is, to generate as much wealth as possible given the existing resources; meanwhile, the State takes responsibility for the redistribution of that wealth *post-factum* to guarantee socially acceptable levels of equity. The effects of this division of powers are well known to all. Market values have tried to encroach on territories not their own, in an attempt to *marketize* spheres occupied by commodities which cannot be viewed as merchandise, such as relational goods (Sandel, 2013). Meanwhile, the State is no longer able, with the classic instruments of taxation and direct intervention into the economy, to ensure adequate levels of social justice, and above all, to reduce the inequalities which are endemically and continuously on the rise in our societies. In fact, intervening *post-factum* is like transporting water in a bucket full of holes: once it reaches its destination, it is almost empty.

2. THE UPSWING OF INTEREST IN THE CIVIL ECONOMY

Why, in the past quarter of a century, has the idea of the civil economy resurfaced as a topic of public debate more than two centuries after leaving the scene? Why is the transition from national economies to a global economy making the civil economy such a compelling topic of study? To answer these questions, we should note that since the first half of the nineteenth century, the concept of the civil economy has been sidelined –as previously mentioned– from scientific research as well as political and cultural debate. The reasons for this interruption are multiple and varied. I will only mention the two most relevant ones. The first was the wildfire-like spread, in the highest circles of European culture, of the utilitarian philosophy of Jeremy Bentham, whose main work, published in 1789, took several decades to become a dominant force in economic discourse. It was the influence of utilitarian morality, not Protestant ethics –as some still believe– that exposed economic theory to the hyper-minimalist anthropology of *homo oeconomicus*, and with it, the doctrine of social atomism. The following passage from Bentham is remarkable for its clarity and depth of

meaning, «The community is a fictitious body, composed of the individual persons who are considered as constituting as it were its members. The interest of the community then is, what? –the sum of the interests of the several members who compose it» (Bentham, 1823: 4).

The second was the full emergence of the industrial society after the industrial revolution. An industrial society is one which produces goods. Machines are ubiquitous, and the rhythm of life is mechanically calibrated. Energy largely replaces muscular force, resulting in the huge increases in productivity which go along with mass production. Energy and machines transform the nature of work, as personal skills are broken down into elementary components. Hence the need for coordination and organization. This shaped a world in which men are seen as «things» because it is easier to coordinate «things» than men, and people are separate from the roles they play. Organizations, starting with companies, deal more with roles than with people. This happened not only within the factory, but in society at large. Hence, we understand the deepest meaning of Ford-Taylorism as a (successful) attempt to theorize about and implement this model of social order. The introduction of the «assembly line» correlated with the spread of consumerism; hence the schizophrenia typical of «modern times»: on one hand, work increasingly lost its meaning (alienation due to the depersonalization of the figure of the worker); and on the other, to counterbalance this, consumption became opulent. Marxist thought and its political articulations in the twentieth century worked, with varied and modest success, to offer alternatives to this model of society.

Today, the great challenge for both culture and politics is to move beyond the traditional model of the capitalist market economy without renouncing the advantages this model has contributed thus far. It is not true, as some would believe, that if we want to preserve and expand the market-based social order, we must necessarily accept (or endure) the market's traditional capitalist format. This is not how it was at the beginning, as mentioned above. The belief that the model of financial «turbo-capitalism» no longer works is widespread in public opinion today. A golden opportunity to reexamine our understanding of the meaning of the market has appeared before us.

3. THE FOURTH INDUSTRIAL REVOLUTION AND CIVILIZATION OF THE MARKET

Today, the phenomenon of the fourth industrial revolution is certainly the most powerful incentive to reconsider the paradigm of the civil econ-

omy. It is well-known that the rise of technological convergence –resulting from the synergistic combination of nanotechnology, biotechnology, information technology and cognitive sciences (acronym NBIC)– is radically changing not only the production methods, but also and especially the social relations and cultural matrix of our society. We do not yet know how digital technology and the culture that governs it will change the essence of capitalism in the coming years. However, we do know that a new Polanyian-type «great transformation» is having a far-reaching impact on the meaning of human work (and on the issue of job destruction), on the relationship between the market and democracy, and on the ethical dimension of human activity (Rocco & Bainbridge, 2002).

Due to the potential of the convergent NBIC technologies to empower and transform both man and society, technoscience is receiving extraordinary attention in a plurality of areas, including the cultural, scientific, economic and political arenas. The objectives are not limited to expanding the mind, improving the diagnostic and therapeutic capabilities for a host of diseases, or even developing ways to control and manipulate information. The artificialization of man and, at the same time, the anthropomorphization of the machine are on the horizon. The veil of silence should be lifted on this subject to open a high-profile debate. The question, in fact, reaches the level of anthropological discourse. Two different ideas of man stand in contrast: the man-person and the man-machine. The latter is gaining ground on the former. This explains, among other things, why the man-machine ideal is creating a real educational emergency today: training/instruction have taken the place of education. The man-machine «asks» for instruction; he does not need education. We must reference equilibration theory, in which the driver of mental development in children and young adults is a process of cognitive adaptation to information received from the outside world.

Nothing could be more mechanistic; it's a concept inspired by the principle of homeostasis, the same one underlying cybernetic theory. A disturbing sign of this reductionism is the progressive disappearance of the figure of the educator. The teacher-instructor is reduced to a facilitator or mediator who, rather than educate, must support the process of self-study or self-training, because only what one does by oneself has value. This is one of the most devastating consequences of libertarian individualism, on which I will comment in the last paragraph. This brings to mind the philosophy of Hannah Arendt, who argued in «The crisis in Education» (1954) that teachers assume responsibility for the world the students are to enter. Moreover, this declaration of anti-authoritarianism (it is not necessary to condition or

guide the subject's free-will choices) actually contains a hidden authoritarian concept: only the expert in self-directed learning is qualified to speak about school. However, teaching methods do not give one knowledge, nor do they allow it to be measured objectively, as people tend to believe. One potentially interesting fact is that there is already evidence of iPhone dependence in a growing number of young people, and symptoms such as depression and reduced reasoning skills have been detected in young smartphone «addicts». In fact, two of the largest U.S. investment funds (CalSTRS, the California State Teachers' Retirement System, and the hedge fund Jana Partners) have formally invited Apple to take steps to address the intensity and usage of its new phones and prepare specific measures for teachers (the thinly-veiled threat was that they would dump their two billion in shares in Apple, an example of «voting with one's wallet»¹).

On a related note, I would like to highlight one of the results, perhaps unwanted and fraught with negative consequences, of the digital revolution. It concerns the impact of computers and information technology on the way in which researchers approach the scientific truth. In fact, we are witnessing the emergence of an analogical reasoning model based on verisimilitude rather than truth: reality is analyzed by mathematical models of approximation entrusted to software that can rely on increasingly powerful computers. As Paolo Benanti (2017) points out, the epistemological perspective has shifted so dramatically that the priority of research is no longer to know reality, but to acquire the ever-expanding capacity to modify –and manipulate– it. In other words, the triumph of technology means a crisis for scientific knowledge, a conclusion which has been drawn since the scientific revolution of the seventeenth century. With the new approach, algorithms are the essence of the reality being studied, so the advancement of knowledge depends on the availability of data. With remarkable perspicacity Chris Anderson –editor of *Wired*– in an article with a revealing title –«End of Theory: The Data Deluge Makes the Scientific Method Obsolete» (23 of june, 2018)– wrote:

The scientific method is built around testable hypotheses [...] But faced with massive data, this approach to science –hypothesize, model, test– is becoming obsolete [...] There is now a better way. Petabytes allow us to say: 'Correlation is enough.' We can stop looking for models. We can analyze the data without hypotheses about what it might show [...] The new availability of huge amounts of data, along with the statistical tools to crunch these numbers, offers a whole new way of understanding the world. Correlation supersedes

1 For a stimulating critical dissertation, refer to Palazzani (2015).

causation, and science can advance even without coherent models, unified theories, or really any mechanistic explanation at all.

This is not the place to discuss the truly disruptive consequences of the new gnoseological paradigms that are gaining ever-increasing support today. But the moment we believe the causal links between phenomena can be safely replaced by avalanches of correlations, we deny the very foundation of the scientific method, the method which gave birth to the first three industrial revolutions. The point being that if one abandons the category of causality, one neglects to explain what is and what occurs; one declines to separate the description of the results from their interpretation. And without explanation and interpretation, there can be no scientific progress.

When we face problems such as those just mentioned, we come to understand the serious limitations of libertarian individualism as the anthropological foundation of the paradigm of *homo oeconomicus*, as opposed to that of *homo reciprocans* in the civil economy. It is well-known that the philosophy of individualism stresses that only individuals can assign value to things and interpersonal relationships. And it is the individual alone who decides what is good and what is bad; what is lawful and what is illicit. In other words, everything to which the individual assigns value is good. There are no objective values for axiological individualism, there are only subjective values or legitimate preferences. In the essay *Individually, Together* (2008), Zygmunt Bauman explains that «casting members as individuals [and not as persons] is the trademark of modern society» (2008: 29). Individualization, continues Bauman, «consists in transforming human 'identity' from a «given» into a «task» - and charging the actors with the responsibility for performing that task and for the consequences of their performance» (2008: 31). Bauman's thesis, therefore, is that «individualization brings to the ever growing number of men and women an unprecedented freedom of experimenting, but it also brings an unprecedented task of coping with the consequences» (2008: 39). Therefore, the yawning gap between the «right of self-assertion» and the «capacity to control the social settings» which make such self-realization feasible, «seems to be the main contradiction of the second modernity» (2008: 39).

On the other hand, libertarianism, a thesis espoused by many philosophers, states that freedom and individual responsibility must be founded on the idea of autocausion. For example, among many others, Galen Strawson, in the essay *Free Agents* (2012), argues that a fully free agent can only be self-caused and self-created, or in his words, *causa sui* and almost god-like. One can now understand why the union between individualism and

libertarianism, that is, libertarian individualism, could have originated *volò ergo sum*, that is, «I desire therefore I am», as the catchphrase for this era. The radicalization of individualism in libertarian and therefore antisocial terms leads to the conclusion that everyone has the «right» to expand as far as his power allows. Freedom as the dissolution from bonds is the dominant idea in cultural circles today. Bonds would have to be cut inasmuch as they would limit freedom. By mistakenly matching the concept of «bond» to that of «constraint», one ends up confusing what may condition freedom – the constraints – with the essence of freedom, that is, bonds.

This aspect was grasped by Michel Foucault with rare perspicacity when discussing the problem of access to the truth. He wondered if we live at a time when the market has become a «place of truth», in which the subjects' entire lives have been subsumed into economic efficiency, and the market even determines that «to be a good government», the government should function based on this *site of veridiction*: «The market must tell the truth; it must tell the truth in relation to governmental practice. Henceforth, and merely secondarily, it is its role of veridiction that will command, dictate and prescribe the jurisdictional mechanisms, or absence of such mechanisms, on which [the market] must be articulated» (Foucault, 2008: 32).

The uncritical acceptance of possessive individualism impacted economics in a way which was perhaps unexpected: the triumph of a market theory antithetical to the traditional notion of the civil economy. A viewpoint of the market as an institution founded on two standards: the *impersonality* of relationships of exchange (the less I know my counterpart, the greater my advantage, because business is better with the strangers!); and the *exclusively self-interested* motives of the participants, so moral sentiments such as sympathy, reciprocity, fraternity, etc. are left outside of the market arena. The progressive and majestic expansion of market relations over the last century and a half ended up reinforcing the pessimistic interpretation of human nature previously theorized by Hobbes and Mandeville, who claimed only the harsh laws of the market could tame man's perverse impulses and anarchist drives. The acceptance of this caricatural view of human nature helped foster a dual misconception: that the sphere of the market coincides with that of selfishness, with a space where everyone pursues, at best, their individual interests and, symmetrically, that the sphere of the State coincides with that of solidarity, of the pursuit of collective interests. It is on this foundation that the well-known dichotomous state-market model was erected: a model by which the State is identified with the sphere of the public and the market with the sphere of the private.

What component of our conceptual infrastructure must change in order to transcend the individualistic-libertarian understanding that is widespread today? Firstly, we must abandon the anthropological pessimism that began with Francesco Guicciardini and Cicolò Machiavelli, continued with Hobbes and Mandeville and reached the modern economic mainstream. This is the assumption that human beings are too opportunistic and self-interested to show consideration, in their actions, for concepts such as moral sentiments, reciprocity, the common good and more. In his famous book *The Fable of the Bees: or, Private Vices, Public Benefits* (1714), Mandeville wrote:

I flatter myself to have demonstrated that neither the friendly qualities and kind affections that are natural to man, nor the real virtues he is capable of acquiring... are the foundation of society. But that what we call evil in this world, moral as well as natural, is the grand principle that makes us sociable creatures, the solid basis, the life and support of all trades and employments without exception (1724: 427-428)

Such anthropological cynicism – based, mind you, on assumptions instead of findings from the real world – was one of the building blocks of the imposing edifice of self-interest which remains the dominant paradigm in economics today. It is clear, or should result so after careful reflection, that on the horizon of *homo oeconomicus*, there will be no room to resolve the ethical dilemmas arising from technological convergence. In fact, from the perspective of this discourse, man is a one-dimensional being capable of acting to achieve a single purpose. The other dimensions – political, social, emotional and religious – must remain strictly separate, and at worst, they can help to compose the system of constraints under which the objective function of the agents is optimized. The category of the «common» has two dimensions: the being-in-common and what one has in common. Well, it is clear that to solve the dilemma of what one has in common, the subjects involved must recognize their being-in-common.

Evidently, such a concept would make sense if all or most individuals were self-interested and asocial subjects. But the factual evidence, which is now very abundant and derived from both laboratory experiments and empirical investigations, tells us this is not the case, because in fact, the majority exhibit prosocial behaviors (for example, sacrificing oneself to achieve collective goals) and not self-interested ones (for example, habitually giving freely). That is why Lynn Stout (2011) makes the compelling case that the conscience, that inner strength which inspires pro-social and non-egoistic behavior, should be taken seriously in legal theory. Conceptualizing the law as a sort of price system which charges damages for various forms

of negligence and non-compliance with contractual terms has the clearly negative effect of raising the cost of the conscience. Teaching selfishness is a self-fulfilling prophecy.

We know the behavioral traits observed in the real world –prosocial, asocial, antisocial– are ubiquitous in society. What changes from one society to another is their combination: in some periods of history, anti-social and/or asocial behaviors prevailed, while others were defined by prosocial behaviours, and it is easy to imagine the economic and civil progress that ensued. A question arises: in a given society, during a given historical period, what determines whether one type of behavioral trait or another prevails? Well, the decisive factor, though not the only one, is the way the legislative system is articulated. Imagine a lawmaker who embraces a Hobbesian-type anthropology, drafting regulations that impose harsh penalties and punishments on all citizens to ensure the prevention of illegal activity by antisocial individuals. Clearly the prosocial –and asocial– citizens, who would have no need for those deterrents, would be unable to bear the cost. Therefore, albeit reluctantly, they would tend to endogenously modify their motivation system. As Stout (2011) writes, if you want there to be more good people, you should not tempt them to be bad.

This is the mechanism of crowding out: Hobbesian-style laws tend to increase the percentage of extrinsic motivation in the population, encouraging the spread of antisocial behavior. This is precisely because antisocial types are not as bothered by the costs of law enforcement, since they will always try to avoid them (consider tax evasion and avoidance). In light of the above, we can now understand how and where to intervene in order to rapidly promote practices that counter the spread of individualistic behaviors. As long as we think of economics as a type of activity which can only be ruled by the logic of *homo oeconomicus*, we will never acknowledge there can be a civilized way of managing the economy. But this depends on the theory, that is, the lens through which one examines reality and not reality itself.

IN CONCLUSION

A winning strategy to keep individualism within acceptable limits is to recenter public discourse on the principle of fraternity. One of the great merits of European culture is how it managed to incorporate the principle of fraternity in institutional and economic terms, making it a fundamental

axis of social order. It was Franciscan thought that gave this term the meaning it has conserved over time. Certain pages of the Rule of Saint Francis can help us to understand the proper meaning of the principle of fraternity. That is, to simultaneously complement and transcend the principle of solidarity. For while solidarity is the principle of social organization that allows unequals to become equals, fraternity is the principle of social organization that allows equals to be diverse. Fraternity allows people who are equal in dignity and in fundamental rights to have different life plans and express their charisma uniquely. Other eras, the nineteenth century and especially the twentieth century, were characterized by great cultural and political battles in the name of solidarity, and this was a good thing; consider the history of the labor movement and the civil rights struggle. The point is that a good society cannot limit itself to solidarity, because if a society were only solidary and not fraternal, it would be a society from which everyone would try to escape. The fact is that while a fraternal society is also a solidary society, the opposite is not true (Zamagni, 2018).

Furthermore, without gratuitousness, there can be no hope. Gratuitousness, in fact, is not an ethical virtue like justice. It concerns the sovereign dimension of human action; its logic is that of overabundance. The logic of justice, on the other hand, is that of equivalence, as Aristotle taught. We understand then why hope cannot anchor itself to justice. Hypothetically, in a perfectly just society, there would be no room for hope. What could its citizens ever hope for? That would not be the case in a society rooted in the principle of fraternity, precisely because hope is nourished by overabundance.

The failure to produce a credible solution to that trade-off, despite the quality of the intellectual forces deployed, is due to the failure to remember that a human society in which the sense of fraternity is extinguished – in which everything is reduced to improving transactions based on equivalent exchange and increasing public welfare transfers – is an unsustainable society. A society which lacks the principle of fraternity has no future; that is, a society in which there is only «give in order to receive» or «give out of duty» is incapable of progress. This is why neither the liberal-individualist worldview, in which everything (or almost) is exchange, nor the State-centric view of society, in which everything (or almost) is duty, is a safe guide to lead us out of the quagmire in which the fourth industrial revolution is testing the endurance of our model of civilization.

BIBLIOGRAPHY

- Anderson, Chris (23 of Juny, 2018). End of Theory: The Data Deluge Makes the Scientific Method Obsolete, *Wired*, 2. Retrieved from https://www.wired.com/science/discoveries/magazine/16-07/pb_theory/ [consulted 15 February, 2018].
- Arendt, Hannah (1954). The Crisis in Education. In Arendt, Hannah (1961). *Between Past and Future. Eight Exercises in Political Thought* (173-196). New York: The Viking Press.
- Bauman, Zygmunt (2008). *Individualmente insieme*. Naples: Diabasis.
- Benanti, Paolo (2017). Il lavoro nell'epoca della *Machina sapiens*, *Oikonomia*, 16(3), 9-15.
- Bentham, Jeremy (1823). *An Introduction to the Principles of Moral and Legislation*. London: W. Pickering.
- Barnard, Chester Irving (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.
- Barnard, Chester Irving (1958). Elementary Conditions of Business Morals. *California Management Review*, 1(1), 1-13.
- Cicero, Marcus Tullius (1888). *De officiis (On moral duties)*. Boston: Little, Brown, and Co.
- Foucault, Michel (2008). *The Birth of Biopolitics*. York: Palgrave MacMillan.
- Genovesi, Antonio (-1767). *Delle lezioni di commercio, o sia di economia civile*, .Naples: Fratelli Simone.
- Deleuze, Gilles (1988). *Spinoza: Practical Philosophy*. San Francisco: City Light Books.
- Deleuze, Gilles (1990). *Expressionism in Philosophy: Spinoza*. New York: Zone Books.
- Mandeville, Bernard (1724). *The Fable of the Bees: or, Private Vices, Public Benefits* [Third Edition]. J. Tonson.
- Palazzani, Laura (2015). *Il potenziamento umano. Tecnoscienza, etica e diritto*. Torino: Giappichelli.
- Roco, Mihail C. & Bainbridge, William Sims (Eds) (2002). *Converging Technologies for Improving Human Performance: Nanotechnology, Biotechnology, Information Technology and Cognitive Science*. Dordrecht: Kluwer Academic Publishers (currently Springer).
- Sandel, Michael J. (2013). *Quello che i soldi non possono comprare. I limiti morali del mercato*. Milano: Feltrinelli.

- Saint Bonaventure (1882-1902). *Opuscula*. In Saint. Bonaventure. *S. Bonaventurae Opera Omnia* (vol. VIII). Florence: Quarocchi.
- Saint Francis Assis (1226). *Testament of Francis (FA:ED, vol. 1)*. Retrieved from <https://www.franciscantradition.org/francis-of-assisi-early-documents/the-saint/writings-of-francis/the-testament/141-fa-ed-1-page-125> [consulted 17 February, 2018].
- Saint Thomas Aquinas (1982). *On kingship: To the King of Cyprus*. Toronto: PIMS
- Smith, Adam (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: A. Strahan and T. Cadell.
- Stout, Lynn (2011). *Cultivating Conscience*. Princeton: Princeton University Press.
- Strawson, Galen (2012). Free Agents. *Philosophical Topics*, 32 (1/2), 371-402
- Zamagni, Stefano (2011). Avarice. In Bouckaert, Luk & Zsolnai Laszlo (eds). *The Palgrave Handbook of Spirituality and Business* (212-218). London: Palgrave Macmillan. doi: 10.1057/9780230321458.
- Zamagni, Stefano (2017). Economics as if ethics mattered. In Peter Rona & Zsolnai, Laszlo (Eds). *Economics as a Moral Science* (21-41). Cham: Springer. doi:10.1007/978-3-319-53291-2_3.
- Zamagni, Stefano (2018). Le bien commun dans le discours économique actuel. *Transversalités. Défis économiques et propositions chrétiennes*, 1 (144), 7-33.
- Zamagni, Vera (2011). *Historia económica de la Europa contemporánea: de la revolución industrial a la integración europea*. Barcelona: Crítica.