The World in a *Roller Coaster*, Clue of the Social-Economic Stratification. Essay on Temporal Asymmetry

Gabriela BODEA
"Babeş-Bolyai" University Cluj-Napoca, Faculty of Economics and Business Administration, Romania
gabriela.bodea@econ.ubbcluj.ro
ORCID: 0000-0003-2832-3269

Liviu Daniel DECEANU
"Babeş-Bolyai" University Cluj-Napoca, Faculty of Economics and Business Administration, Romania
liviu.deceanu@econ.ubbcluj.ro
ORCID: 0000-0002-1741-9102

Abstract
Time "catches up" with any type of society, more or less advanced; it supports its progress, but it can also alter its results, so that (in extremis) it even suppresses its chance for evolution. We are, therefore, talking about a deeply contrasting and at the same time fragile landmark, which we cannot completely control, although we manage to influence it: economic time.
From this perspective, we want temporality – creating a new and asymmetrical amplitude for macro- or mondo-economic entities – to open the way for them to succeed. Otherwise, inevitably, we talk about inequalities, non-compliant policies and socioeconomic stratification. In conclusion, reality can be reconfigured through change; and yet, unable to change historical time, we search for ways to turn it to our advantage.

Keywords: temporality; social-economic evolution; social-economic stratification; social-economic asymmetry.

JEL Classification: A14; D91; O10; P50; P59.

DOI: https://doi.org/10.24818/ejis.2024.08

1. Argument: *Economic Time and Knowledge* – Catalysts of the Economic and Social Reality

The current economy is a *mixtum compositum* that appeals to at least three elements: the laws of thought and logic, the cause-effect reasonings and the models of constructive mathematics – each of them generating projections and predictions. Even today, in the 21st century, we often go back to the past: either we prove the validity of some principles, or we take over truths and give them new connotations, or we consider certain theories outdated. In any of the three scenarios, the "geometry of time" influences both micro-, macro- and mondo-economic benchmarks. We must recognise that market entities need measurable realities but lack certainties: basically, working assumptions can change at any time.

We are talking, in essence, about *changing worlds*. This process marks – sometimes irreversibly – the *becoming* of economic systems, respectively their asymmetric, astounding transformation, over the centuries.

Received: 24 March 2024; Revised: 17 July 2024; Accepted: 31 October 2024

The knowledge of economic reality adopts a non-linear function, dependent on change, on a multitude of socio-moral and political factors. Ruled by the motivation of gain, it remains subject to temporality and uncertainty – so it does not ensure success, but only predicts and / or indicates it. Relativism allows shifting the centre of gravity of market entities, repositioning its limits on levels by probing either the sociology of knowledge or economic theory. And the argument of our statement is simple: time – element of universality – attacks (even if not equally) both concrete knowledge and the "territory" of cyclical fluctuations. From a socioeconomic perspective, time is what determines the comparison of both the "postulates" originating from life, as well as the uncertainties arising during evolution. But time shows us that asymmetry – seen as the result of the different ability of economic subjects to resist in the market – can be an important source of gain, because it marks the inequality of power (from an economic, political perspective).

In economics, we approach and study many contradictions. According to mathematicians, a theory T is *relatively contradictory* in relation to another, T', when the fundamental concepts of T can be defined in the language of T', and the axioms of T have a counterpart in statements verified on T'. In this case, *the theory T is interpreted in the theory T'* (Gellert, 1971/1980, p. 897). Extrapolating this *timeless* mathematical truth to economics, we recognise that, although it seems trivial, it is very complex and abstract. For example, in 1938, concerned with the aforementioned problem, Kurt Gödel showed that the *continuum hypothesis* and the *axiom of choice* are *relatively noncontradictory* in relation to the other axioms of set theory. After another quarter of a century, Paul Cohen noted that even the *negation of the continuum hypothesis* is noncontradictory in relation to the mentioned axioms (Gellert, 1971/1980, p. 898). So, what exactly is the economic-social reality heading towards? The way economic entities perceive and process time is significantly different. They oscillate between tending towards continuity and de-spatialization, respectively, towards physical time, in favour of economic time, although this does not necessarily represent an advantage. Economic time guides subjects to evaluate physical time, as a commodity in the true sense of the word – and teaches them to "discover" the lost or gained time (saved). But the one that confers value can be precisely the subjective time, shading the different perception of time – therefore of *change* – in the eyes of each economic agent.

2. Literature Review

Has the modern world – in particular, capitalism – reached its growth limits? This is not a new approach. Joseph Schumpeter wonders if the survival of capitalism ("Can Capitalism Survive?") is a realistic concept or not (Schumpeter, 2003), in a world that proves, day by day, its hostility towards normality. „No. I do not think it can." (Schumpeter, 2003, p. 61), Schumpeter concludes. It was precisely his scepticism regarding the answer to the previous question that made him treat, in fact, the concept of "Plausible Capitalism" (Schumpeter, 2003).

Thomas Picketty brings back into discussion the existence of „two economic-social worlds" (Picketty, 2013). He supported the (not exactly new) idea of a progressive tax on capital (Picketty, 2013), which – however – would require international and regional cooperation, an almost illusory purpose / goal.

Time changes perceptions, but also the realities of the world: sometimes this is an advantage, sometimes the opposite (Berliant & Kung, 2010).

Postulating the characteristics of postcapitalism, Peter F. Drucker mentions the fact that such a term is transitory (Drucker, 1993), because temporal changes change the unfolding of economic-social processes. Only a structural change, creating a new knowledge, can have a chance: the one based on "social innovation" (Drucker, 1993, p. 52).

And yet, let us not forget that Jeremy Rifkin expresses his scepticism about the multiple implications of change (viewed both as a generic process, but especially as a technological impact). Discussing *the economic time,* Rifkin finds that we are seemingly further away from the old dream of abundance, and the cause seems to be the so-called "Trickle-down Technology" (Rifkin, 1995).

David Fairris bravely tackles the "endogenous contradictions", conflicting situations that arise over time, as society changes its limits, norms, and chances. As we know, they can give rise to crises that confront economic systems with the process of institutional change (Fairris, 1998).

Without looking down at the real problems and shortcomings of the economic entities and/ or of the citizens, the states are one step away from failure or even facing it: "The roots of discontent in these countries lie in their poverty" (Acemoglu & Robinson, 2012, Preface). Countries from the same region (even neighbouring ones) have unbalanced economic policies towards each other, and the apparently banal expression "So close and yet so different" (Acemoglu & Robinson, 2012, p. 7) has become, today, a *common one*.

This is where Daniel Cohen's theory becomes relevant again: it claims that rich states should design policies adaptable to always changing types of inequality: temporally and structurally different. We reconfigure it according to the period we are going through. Therefore, we believe that in a turbulent situation like today's, *all countries* should rely on flexible policies, which allow changes in the sequence and pace of development. The reason is clear: the old socioeconomic and political premises are no longer functional, and the protection that the world's economies need comes from themselves and not from supranational bodies (Cohen, 1998, pp. 111-112).

On the other hand, the privileges of industrialisation were and remained the prerogative of developed countries, which took advantage of the fact that economic time was always their own ally (Huff & Naess, 2022). So, applying mechanisation and automation to the extent determined by their evolved resources, they were the first to be prepared to accept two extremes: on the one hand huge pollution (that is why we talk about "climate injustice"), but on the other hand the gift of artificial intelligence. Unlucky countries could not completely recover their lagging behind: even in the 3rd millennium, many of them remain behind others, whose advance (including temporal) can no longer be reduced. However, even the gap between areas/regions of the same developed country remains noteworthy. An example is the case of Italy, marked by the North-South disparities, which affects the population from the distant past until today. The tragic "dualism" of this temporal discordance, with anthropological origins, cannot be contested (Daniele & Malanima, 2014). Basically, instead of dissipating, the interdependencies between the states of the world are (inconstantly and asymmetrically, of course) always re-establishing other and other connections. "Economic justice" remains only a beautiful concept, for which perhaps only idealists still hope.

One of the most thoughtful evocations of the importance of temporality in economics is that of Mark Setterfield. Insisting on the impact of historical time on the evolution of the world, his work leaves its indisputable mark on the entire economic theory. Even if some consider the subject to be esoteric (being also correlated with elements of the chaos theory), the observation of temporality is not only a philosophical phenomenon (Setterfield, 1995). Indeed, it competes with other interesting notions such as logical time (Setterfield, 1995, pp. 4-6), but in this way it competes with the definition of economic causality. For example, in some situations where they fail, economic entities do not recognise their own lack of determination. They "blame" the lack of time needed to achieve a positive result and do not necessarily generate proof of correcting the situation.

In fact, our entire world is under the sign of discontinuities induced by temporal variables, including the so-called "natural asymmetry", a recognised concept in economic behaviour (Acemoglu & Scott, 1997).

From a universally valid perspective, the efficient use of time is both a cause and an effect of social-economic inequality (Vagni, 2020). And, precisely because it "robs" us of free time (let us not forget the controversy between the substitution effect and the income effect, in the labour market), this process offers a dual perspective of social stratification.

The dynamics of geopolitical changes is gaining, in recent decades, much larger proportions in comparison to previous estimates. Appearances are found in macro- and mondoeconomic policies, and known patterns change their coordinates (Youngs, 2017). "The End of an Order" (Youngs, 2017) seems to reveal a painting hidden under other colour layers. And the future expresses no certainties; it "covers" what cannot be seen unless you turn your head and sneak a peek (Savitt, 1990, p. 317), at the changes happening around you.

3. In the *Roller Coaster*: Economic Time and Social-Economic Stratification, Resulting from *the Change of Worlds*

Marcel Proust (Proust, 1996) tells us an apparently trivial fact: a man, set off "in search of lost time", returns to the past thanks to memory and can experience the same situation in a different way, but presented in distinct moments. This is how it also happens in the economy: one and the same event (phenomenon, process) "lasts" depending on its past, present, or future perception, through comparisons, realities, and anticipations. Obviously, physical time, measured by classical mechanisms, is unique and irreversible. But real time becomes *multiple and reversible* when, in psychoeconomic terms, reflection and forecasting make a "common front" in solving economic-social problems. *Worlds change*. But it is not only a change in the dynamics of some indicators, but also one of mondoeconomic architecture.

Time is often presented by analogy with space, but this is an effect of our superficial view of the changing world, says Henri Bergson so naturally (Bergson, 1922). Extrapolating such an idea, we affirm that looking at the unknown "time" from an economic point of view means giving up a *totalising* image, analysing it in parallel, from a physical, mathematical, and psychological perspective. In such a perspective, any *output* should be seen as an undoubted extension of "before" into "after" (Bergson, 1922, pp. 42-43). One of the best-known means of studying and perceiving the duration of an economic activity is the *quantitative evaluation method*, using conventional units of time. Another such technique

is that of *evaluation through reproduction*, motivated by the resumption of an action equivalent to the researched one (according to a model). *The method of evaluation by comparison* implies, in turn, the experimentation of some phenomena and highlighting the similarities and differences between them and other known ones. However, any of these means must differentiate between *objective* and *subjective time*. For example, global risks fall under the comparative incidence of three groups of temporal hazards. In this sense, the international institutions (World Economic Forum, 2023) remind about: ongoing risks; the risks that will prove serious in the next two years; risks likely to become serious in the next decade. At the same time, time limits *separate* and *orient* the risks, whether they are of an economic, geopolitical, environmental, social, or technological nature. It interconnects them and changes their initial structure, at every "signal" that the *polarised world* changes its risk potential.

As a manifestation of *objective time*, poverty has for long ceased to be a paradox. The fact that rich countries continue to have many poor remains – beyond any possible paradox – a reality. The perpetuation of poverty as an economic, social, but also psychological phenomenon is actually a trap that only *gives the appearance* that it can be avoided. Certainly, we are not talking about a singular phenomenon: it affects all the countries of the world (rich or not), but in different ways, witnesses of the subjective *time*, both at the micro- and macroeconomic level (Haushofer & Fehr, 2014; McKay & Perge, 2013).

Social-economic stratification derives from *change*. Concretely, it is the result of any type of observable transformation, which affects over time the architecture, mobility, and/or credibility of the functioning of an entity/community, modifying "steps" in its history (Boudon, 1997, p. 361). Without inducing false hopes (although it often does), *change* imposes models of society's development, but brings with it a series of inequalities, respectively *stratification*. Even economic growth, with its general positive impact, became – especially in the 20th century and the first decades of the 3rd millennium – an unwanted "source" of negative processes: addictions, underdevelopment, crises, and conflagrations.

Since ancient times, the *phenomenon of change* has been one of those that fuelled the eternal "philosophical quarrel" of becoming. The phrase *everything flows* (everything is becoming, i.e. change) of Heraclitus definitively collided with the denial of the reality of movement, the theory of Parmenides and Zenon (members of the Eleanian School). Aristotle found that, in fact, the world is experiencing a spatial and temporal, quantitative and qualitative change. Newtonian mechanics later focused on changes in place and quantity, but was not concerned with qualitative changes.

Man generally fears the passage of time, because he is dealing with a one-way process ("one-way direction"). This temporal asymmetry can be demonstrated by reduction to the absurd. In short, assuming that time were reversible, could a phenomenon be considered as realistic in its historical evolution, that is, looking at it from its end point to its beginning? At least in economics and society, the answer is negative: we submit to change that comes from the "known" and - often - moves towards the "uncertain" or the "unknown". Generally, on the time axis, we associate the past with "left" and the future with "right". Even such a (apparently alterable) detail provides reasons for causality analysis, since any economic-social process is preceded by factors that bring it closer to its current form. So what do we notice, visualising the beginnings of the term *change*? The definitions based on physical, static data are not sufficient to analyse reality – of economic or other nature – because not in all fields, knowledge can be cast in a theoretical mould. Often, we want to capture significant mutations, because in this way we operate with a very wide palette of

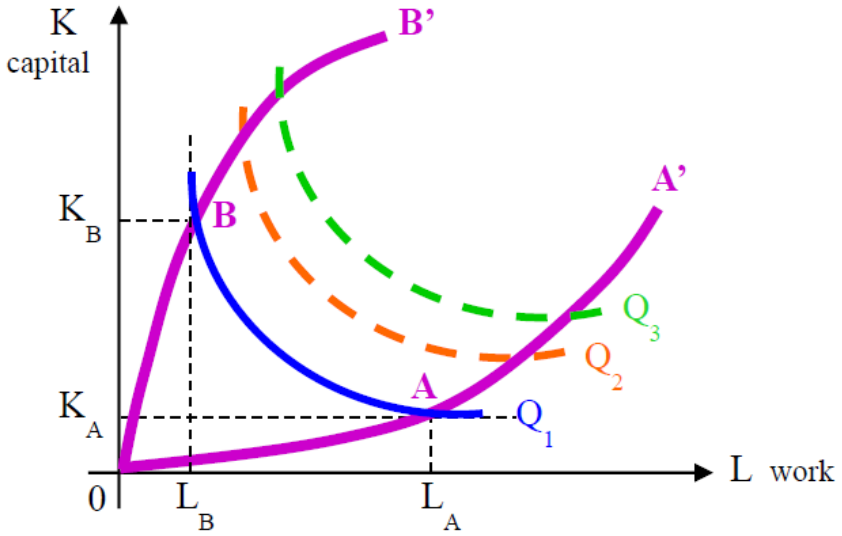
exemplifications. We highlight here some less conventional markers of temporal asymmetry, generating economic-social changes.

CASE STUDY 1

We propose a look at the asymmetric change of reality. Strictly speaking, we have in mind the hypothesis in which the economic system configures its two inputs, at its disposal, according to rationality criteria, imposed by the effort-effect relationship. Our presumption shows, in fact, that - starting from the individual to the society (from "small" to "big") - the subject is found in a Roller Coaster with systemic structure (organised and functional).

Discussion: (i) Useful decisions cause the entity to stay on the "runway", but it rarely manages to keep its "place" (position) for long periods of time. Its dependence on temporality is induced by uncertainty and induces, in turn, question marks. (ii) Unsatisfactory / incorrect decisions are destructive: the economic entity registers failures, "loses its direction" and, in extremis, leaves the "running track".

Figure 1. Delimiting the rationality of decisions and actions – systemic level



Source: Authors' contribution

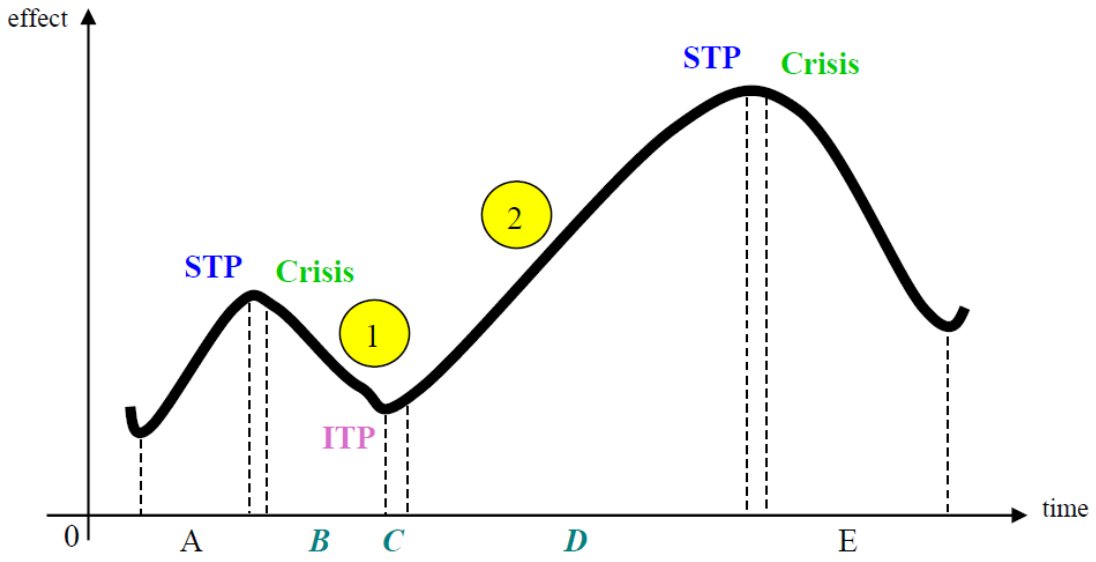
In ***Figure 1*** we assume a system of coordinates, axes L (work) and K (capital), where L and K constitute inputs that each economic entity needs, but which are not necessarily capitalised in the best way. On each Q curve in Figure 1 we record different levels of output, obtained by using the related inputs (work; capital), so that Q3 > Q2 > Q1. Along the length of each highlighted curve, the overall effect is the same. However, its evolution matters, namely the quantitative, qualitative, and structural leap of the system. If entities want higher outputs, they must be willing to allocate increasing inputs. But are they capable of doing so? And if so, is the result commensurate with the resource allocation? We are discussing a reasoning whose finality is asymmetric: the starting hypothesis is the AB curve, in relation to which we highlight the types of effect / effort ratio, accessible to the economic subject.

The *time* variable selects both the results and the sustainability of the entity, because - in the end - we are talking about (un)available resources and their prices. In fact, priorities are what order the position of agents in the market. The zone of rationality B'-B-0-A-A' (contained between the arcs in Figure 1) delimits the possible and useful structures from a decisional, financial, and temporal perspective, for each economic system participating in

the market game. Also, in this perimeter we locate the chance to optimise the result. But each decision involves changing the working assumptions, operating methods, and the position of the entity in the branch / in international rankings, according to the interests of the moment. The geometric place of all these rational locations outlines the course of a Roller Coaster, along which the system identifies its own goals: (i) the optimal state; (ii) the stable equilibrium. The hallmark of this entire gear is change, namely either the acceptance of asymmetry (economic and/or social), or the refusal to participate in the game.

During the roller coaster ride (***Figure 2***), the time jumps of the expected effects are estimates, so winning and failure are possible effects. For example, setting economic growth as the goal of the system, we observe two viable variants of its commensuration: either through the impact of labour and capital (used in production processes), or through the intensification of the efficiency of the production factors. However, both are subject to temporal changes, including from an institutional perspective (regulations). Deficiencies in the work steps can lead to errors in the chain, which, cumulatively, cause imbalances in the activity and the achievement of the lowest level of the monitored indicators. Reassessing the situation means recalibrating the entire course – that is, overcoming the asymmetry – and returning to a state of affairs that either favours the entity to progress, or causes it to reformulate its decisions (***Figure 3***).

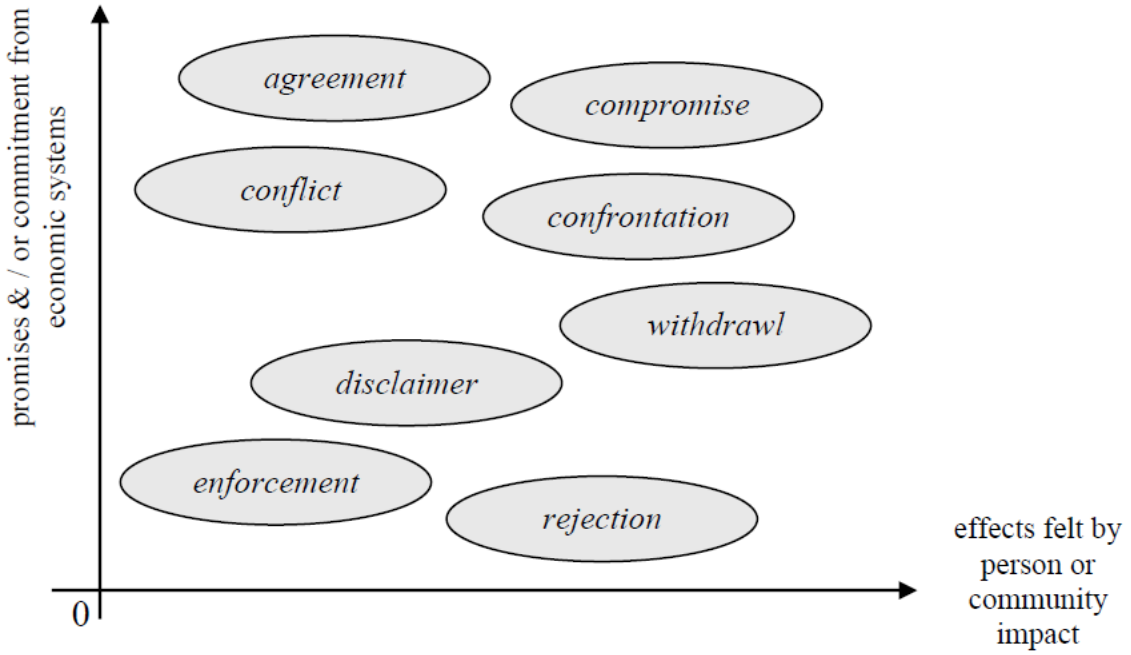
Figure 2. *Roller Coaster* following a wrong decision



Legend: BCD – Illustrative Roller Coaster cycle: wrong decision (crisis-inducing stage) – inefficient resource allocation (another crisis-inducing stage) – poor goal achievement – Inferior Turning Point (ITP); correction – new impulse – relaunch – development – Superior Turning Point (STP); 1 – depression; 2 – expansion.

Source: Authors' contribution

Figure 3. The *Roller Coaster* Matrix



Source: Authors' contribution

Discussion*:* We find asymmetry at all levels of our existence. Caused by numerous factors – among which we can rely on temporal change – asymmetry can create value, but it can also cancel value. In **Figure 3** we propose several variants of reaction on the part of a person and / or community, as a result of the promises or commitments coming from the economic entities. Each of the elements of the matrix can result in another such element. Examples: enforcement → rejection; disclaimer → withdrawal → rejection; conflict → confrontation → compromise → agreement. On these "steps", cumulatively, we find the course of a Roller Coaster that involves different amplitudes of the economic movement, caused by the temporal changes of the processed variables.

CASE STUDY 2

Here are some ideas and/or applications of the economic theory which capture interesting details of economic temporality with an impact on economic and social asymmetry:

a) Working hours – Gary Becker's theory (Becker, 1997)

If the changes effects in the allocation of *the time used for consumption* (*tc*) could be strictly determined, the consequences on *the working period of time* (*tl*) would result from an equation of the genre: $t = tc \div tl$ considering the effects of the incomes and market prices' modifications over *tc* and *tl*, using as analysis instrument the differences. *The marginal relative importance* of incomes left aside in this way is defined as in: $\alpha = (t \cdot l) / [(p \cdot b) + (t \cdot l)]$ (where: *t* – the number of hours used for a unit of product of Z type; *l* – the incomes left aside per hour; *p* – the price of the goods on the market; *b* – the number of goods used for a Z unit). Accordingly, the time relative importance is defined as in: $\gamma = t / [(p \cdot b) + (t \cdot l)]$ (it is seen that the denominator of the two ratios is, in fact the complete price of the units of good Z).

b) Working hours – Huberman & Minns theory (Huberman & Minns, 2007):

The reality shows that in developed countries, the annual number of working hours / worker has decreased over time (starting with the middle of the 19th century and until the end of the 20th century), which corresponds to the contribution of the evolution of technology to the economic results of the respective states. In this sense, in delimiting the evolution of working hours in the world, the theory of Huberman and Minns (Huberman & Minns, 2007, pp. 538-567) takes into account indicators such as: the number of hours worked / week (by entities, occupations, countries, and years), the average hourly wage, jobs specific to men, etc. Generic findings regarding the period 1870-2000 (Table 1):

- Globally, on average, from over 64 hours of work/week in 1870, it reached about 36 hours in 2000, that is, an indisputable leap (a decrease of about 43-44%) towards easing the schedule of a worker.
- The total number of working hours / years decreased from approximately 3,130 in 1870 to approximately 1,630 in 2000, meaning a reduction of approximately 48%.
- In the same time interval, the number of days off / year (including vacations and holidays) increased - also as a global average - from approximately 14 to approximately 33.
- Comparatively, in certain periods, the number of hours worked in Europe decreased faster, due to the capacity and population size of the old continent. In other periods, the situation was reversed. The main reason was given by the institutional climate (the position of the state towards work and local regulations), but it was joined - as relevant - by cultural-anthropological and religious factors (respect towards work, the importance of this element in the collective consciousness).

Table 1. Annual hours of work (1870-2000)

Year	1870	1880	1890	1900	1913	1929	1938	1950	1960	1973	1980	1990	2000
Annual hours of work	3,131	3,045	2,938	2,871	2,750	2,230	2,133	2,132	2,053	1,874	1,759	1,682	1,627

Source: Huberman & Minns (2007, p. 548)

c) Time productivity – Gary Becker's theory (Becker, 1997)

Over time, most of the increases in earnings recorded by the world's economies, respectively those that stimulated the development of the analysis *working time – free time*, resulted from an increase in the productivity of working time. In turn, this indicator was based on the development of human and technical capital, as a result of the implications of technological progress and other economic and social factors. But the increase in income, resulting from the increase in productivity, has consequences both for the income effect (the number of hours worked being lower over time) and for the substitution effect (since, with age, the individual's preference for time changes is different). Gary Becker refers to the way of achieving "total income" or "total wealth" (Becker, 1997, p. 80), terms that consider the theoretical trajectory of a so-called "optimal consumption" (Becker, 1997, p. 80) over the ages. In fact, we recognise that the advance of capital and technology led simultaneously to an increase in both productivity and leisure time (time "destined for consumption", as Becker calls it (Becker, 1997, p. 81)). Inevitably, this phenomenon caused a change in the perspective on "total income", including due to changes in the

relative prices of goods – an element that led to the appearance of income effects and substitution effects of uneven sizes and importance. If we rely on the increase in productivity over the ages, the time required to produce a unit of good Z decreases, leading to a decrease in the gains that are given up per unit of Z manufactured. The relative prices of goods with "large gains to give up" will fall, leisure time (time "destined for consumption") will increase, and working time will be reduced. So, in essence, the increase in productivity determines the increase in "total income", because: (i) on the one hand, to obtain this indicator, time "outside work" is also necessary, so "total income" will increase due to the additional amount of work; (ii) on the other hand, even if the "total income" would not be affected, the real income would increase, since the price of the good Z would decrease, and the cost will decrease with the production time of a unit of good Z. Another problem concerns the ratio between the productivity in the services branch, as compared to the productivity in the goods' production field (it depends on which one of them surpasses the other). For example, during the last decades, in the case of hairdressers, the service "sales" decreased very rapidly. The reason is reality according to which, especially in respect of shaving, the turn up on the market of the most modern and sophisticated shaving machines deposed the "classical" operation, which took place until sometime at the barber's. Why? Because, instead of going to the barber and waiting their turn and only after a while leaving to their destination, the men "save" the time for the way, for the waiting and even for the shaving itself by shaving at, with sophisticated machines. The regress canned by the productivity of this "branch" does not frame in the typical evaluations made by specialists; the evolution in time of the processes we are talking about indicate even the reversed process, that of the increase of labour productivity.

Compared to past centuries, where work was categorically hard and predominantly involved substantial physical efforts, in the 21st century it becomes more attractive and sophisticated because: (i) Aimed at both society and the individual, it can be capitalised in a superior manner. (ii) The quantitative consideration (the "volume" of work) is losing ground in favour of the quality of the submitted activity and the valorisation of inputs. (iii) Productivity motivation becomes a mission correlated with the organisational culture.

The fundamental principles of classical economics, according to which its laws are valid in any institutional setting, are correct in form, but in practice they are *determined* by it. The reason is the dialectical way in which people perceive reality, which involves evolution and qualitative changes that are often irreversible. For example, Nicholas Georgescu-Roegen (Georgescu-Roegen, 1979) proposes us to visualise the economic process as a continuation of biological evolution, in fact *a transcendental extension of this evolution*. The problem is that, in the neoclassical and neo-Keynesian sense, economic science is based on the model of Newtonian mechanics, applying mechanistic epistemology. This conception allows only translational and reversible changes: theoretically, everything becomes locomotion, and therefore qualitative changes could be missing. What is the follow-up? The economic process would appear as a *circular*, self-sustaining movement – but in reality, *evolutionary elements* (not circular ones) characterise the vast majority of concrete economic phenomena. We offer here the example of the profound technological transformation that Japan imposed upon itself, as a reaction after the devastating tsunami of 2011. Resource management took a special turn in a relatively short period of time, precisely because the evolutionary change was viewed as a *self-imposed and accepted opportunity* (Mochizuki & Chang, 2017).

Returning to Georgescu-Roegen, we find that the *homo oeconomicus* abstraction "empties human behaviour of any cultural inclination" (Georgescu-Roegen, 1979, p. 47), because,

in reality, the cultural matrix of society influences the design and realisation of economic activity. And even if the mathematical approach to the world is currently justified, "the things we can do with numbers have a limit, as do the things we can do without numbers" (Georgescu-Roegen, 1979, p. 183). Precisely for this reason, the statement according to which in reality, "only locomotion is far from quality and ahistorical, everything else is Change" (Georgescu-Roegen, 1979, p. 52) is suggestive. What exactly is changing? Evolutionary, everything. As Georgescu-Roegen claims, in the economy "there is a continuous range of forms that slip into one another, as the economic process evolves" (Georgescu-Roegen, 1979, p. 529). Therefore, the development of economic models is useful, *if they are understood as ways of analytical study, not as exact patterns*.

The change causes massive social differentiation and, undoubtedly, *stratification*. "The consumer society creates the marginalised", says Michel Didier, because, apart from the people who can adapt to the general pattern (the majority of individuals), there are some groups that are excluded or self-exclude from the respective system (Didier, 1994, p. 36). On the other hand, "productivity improves with culture. The longer a person is educated, the more adaptable and therefore the more productive in the long term that person is in the face of new and changing challenges" (Lipsey & Chrystal, 1999, pp. 693-694). We offer here the example given by Gary Becker: the so-called "gradual education" (from generation to generation) makes economic growth on the one hand, but also economic-social inequalities, *depend considerably on investment in human capital* (Becker, 1997, p. 284). His theory is proof of the fact that access to capitalising on human capital is *imperfect*, because the financing of an investment in new generations is conditioned by the ability of the parents to face ever-increasing expenses over time. But can people's education and life chances be comparable, in an economically-socially stratified world? Can you ask a person who lives daily with only one American dollar, to be concerned about his own education or that of his descendants? Obviously not. For such a reason, unfortunately, billions of people live in developing countries. However, the discrepancies do not bypass economically advanced countries. Even at the beginning of the third millennium, in advanced economies on the world (for example, Germany) the existence of an undesirable social category was outlined: "unterschicht" – the "bottom" social layer, seriously affected by *modern poverty* (Uchatius, 2005). Precisely for such reasons, the fight against social exclusion is an essential objective of EU policy in the social field.

On the other hand, *the equality of chances* is not just an evolutionary imperative in the European Union but constitutes the main binder of the peoples of the old continent in this *ever-new* – in terms of structure and content – geopolitical construction. The financial efforts of the European Union are meant to transform into reality the goal of equal opportunities (structural policies being instruments in the service of its application), but, in fact, the meaning of development overlaps with that of ensuring equal opportunities. The convergence of these two objectives results from the fact that a large part of the conditions that are necessary for rapid development are identical to those that can ensure equal opportunities. For example, a high-performing education system is extremely important for ensuring equal opportunities, but it has an equally high relevance for the development of the economy, provided that the other foundations of evolution exist in that country. Otherwise, even if the education system is performing well, the faulty economic system will not allow them to use their training properly.

Change usually means *acceptance of the other*: it is the economic entities that have to adapt, and it is causality that imposes "amendments" through an adaptive function (Boudon, 1984, p. 276). Of course, such a function is only relevant if it takes into account the many cause-

effect relationships that can change its purpose. Here is an example in this sense: "Industrialisation caused the feeling of a rupture interpreted in various ways, of a separation between a before and an after which gave rise to strongly contrasting representations", says Bernard Valade (Valade, in Boudon, 1984, p. 357). Is change merely a rift between past, present, and future, or an unmistakable fissure between old and modern? No, we do not think so. But by causing horizontal, vertical, and transversal mutations, such change "sets the world in motion". By detecting decision gaps and anticipating situations not indicated in the working hypotheses, economic entities can bring these processes to bear. But, at the same time, they generate or deepen the patterns of economic-social inequality, which - at any historical time - differentiate individuals, collectives, companies, and states. For example, wealth is perceived as both wealth (the possession of significant material resources) and power in the community. In both mentioned variants, the accentuation of social polarisation becomes inevitable; public policies cannot eliminate it, but possibly only mitigate the exclusion to which the economic actors deprived of the opportunity are exposed.

The notion of *social stratification* refers to the hierarchical arrangement of some social categories, according to a scale based on various criteria. It thus "cuts out" some social components of the population, delimiting them from the others (with which they are still in a certain relationship). Normally, society conceives its value judgments regarding stratification on several elements: individual qualities, obtained at birth; personal performances; acquired earnings (wealth, professional competence). Except that people are not identical: some are taller, others shorter; some are stronger, others weaker; some are younger, others older. Similarly, the national economies: some are advanced, others are in the contrary. We cannot blame them for the lack of a certain type of quality, but there are differences between us, which society itself creates and even develops. If in primitive communities, superiority resulted from physical strength that propels the individual towards a higher social status, in the modern world, muscular strength does not confer an elevated social position, but only an improved physical appearance. Contrary to this case – of a natural hierarchy – we believe that today, social stratification depends on three factors: material condition, property rights, and economic power. For example, for Pitirim Sorokin, stratification defines "an unequal distribution of rights and privileges, social power, and influence among the members of a society" (Sorokin, 1959, p. 11). However, those who have wealth are not necessarily respected in society, just as those who benefit from political and / or economic advantages as a result of their activities do not necessarily occupy a leading place in the profile "rankings".

Western economies have learnt over time that exploiting resources in former colonial countries is profitable. Especially after the Industrial Revolution, they applied practices that drained the reserves of the countries of origin, bringing pollution and excessive urbanisation to levels that now endanger the world map, creating new patterns of inequity. And yet, technological innovation tries to become an essential factor of the new mode of production imposed by the requirements of compatibility with sustainable development. This would not have been possible without reconsidering the importance of economic time, simultaneously as a friend and adversary of market entities.

Complementing what was previously stated, social stratification can also have a religious substrate, through the hostility created over time between *the sacred* and *the profane*, between what is allowed to man and what is not allowed to him. In difficult times (wars, crises, calamities), the religious factor feeds the belief that, on the one hand, "it cannot be worse than that", and on the other hand, that the individual is obliged to fade the

uncertainty. Starting from the idea of "social aid" in difficult times for various economies (be aware of the example of the crises), let us remember that "The Poor Law Amendment Act" (UK Parliament, n.d.) provided for, in England at the beginning of the 17th century, the granting of aid to the poor from those able to work, in exchange for community service. Social stratification required, in those days, that the poor be included in several categories, in relation to their own work capacity (and the refusal to work was punished in correctional houses). Only the unfit for work could live in asylum-type "charity institutions".

One of the expressions of social stratification is the deepening of the discrepancy between social classes, based on differentiation and ranking according to a number of three known economic criteria: income, property, and wealth. In recent years, the following have been added to them: occupation, type of education, value system, mentality, and lifestyle. We believe that in the contemporary world, the stratification deepens because today the following types of influence are accentuated:

- The family, the classic source of the well-being of future generations, has become important again, not from a sentimental point of view, but from the perspective of what constitutes inheritance itself: money and other symbols of wealth.
- The society's value system has deteriorated, because work is less important than decades ago (when wealth was the result of the efforts of several successive generations).
- The social hierarchy propels quickly adaptable individuals (although socially passive), eager for undeserved gains and immediate advantages, as large as possible.
- Negative social selection is maintained, i.e. non-values are promoted (which - however - give a certain stability to the ruling class: liars, tricksters, profiteers).

The stratification is invariably linked to contradictions. The dominance of contradictions derives from the features of the system it represents: nature, society, economy, thinking, knowledge, experience, etc. The complexity and diversity of the situations we face are motivated by the fact that, although they contribute distinctly to the individualisation of phenomena and processes from the surrounding reality, the contradictions intertwine and sometimes coexist, in a more or less apparent formula (being relatively unlimited).

Contradictions have always fascinated us, as they appeal to the bipolar world: *yes and no, plus and minus, white and black, hot and cold, yin and yang. The conflicting states* arising from the deepening of contradictions aim at the fact that any real system has forces that assume and negate each other reciprocally, with the intention of restoring an existential balance, once lost. Thus, *the unity of opposites* is always transformed, imposed by (self) development, generating multiple economic-social relationships: between *individual and general*, between *possibility and reality*, between *necessity and chance*, between *spontaneous and conscious*.

4. Conclusion

Whether they represent individual, community, or global interests, economic-social entities focus their purpose on deterministic considerations (regarding their immediate purpose). Some emphasise the importance of the economic game, others the role of synergistic communication, but the winning ones prove to be those that intelligently transform inputs into viable outputs, in the context of the time pressure of achieving results. In other words,

sustainable entities must prove their systemic and utilitarian attributes for both the individual and the community, company, or state.

By definition, a system designates a functional assembly. The simple observation of this fact does not mean, however, the identity of the components of the whole or their full harmony – possible only in particular cases. Basically, we are talking about the fact that asymmetry - informational or functional - characterises most of the states experienced by economic entities. It also condenses the sensation of "wasting time", which it transforms into actual, material (value) and moral loss and assigns it to chronophagous activities in the economy and society. So, the system requires the *synchronisation* of the parts of which it is made up, with their inevitable gaps (as we know that in the economic-social reality, we know neither absolute perfection nor any *perpetuum mobile*). Consequently, among the main causes' asymmetry (including conflicts), we note at least the following, which visibly affect the ability to withstand the economic environment:

- The basic source of opposing interests – and therefore some forms of asymmetry – is the *heterogeneity of the components* of a whole each bearing a *relative* autonomy. Where does this relative character come from? It derives from the fact that a middle way must be found between *complete enslavement and the anarchic struggle of each against all*; in other words, the progress of the system is tracked through its internal correlations but respecting the relative independence of its fractions. The faulty application of this principle leads to difficulties in the communication between the whole and the part.
- Imbalances represent the second cause of conflict asymmetry. An example in this case is the rupture caused by the negative manifestations of a social group, on a recognised system of values. It distorts the very meaning of communication at the economic system level, promoting falsehood and mystification.
  The third major source of misunderstandings is the search at all costs for rationality in practice, given that – as we all know – it is desired but hypothetical. Thus, there is a clash of interests between the expected, the possible, and the achieved effects, and the result is not always up to the rational calculations and forecasts (optimistic or pessimistic), but often below them. Trying to achieve results thus loses its essence, turning mainly to considerations of enrichment.
- The international affairs of the last decades and the causes of the great conflagrations demonstrate that the failures of the markets and society derived not only from technical-economic errors, but also from another asymmetric pattern: *intolerance to the differences between organisational cultures (both institutional and individual)*. Thus, the relationship between the state and citizens, between social groups and individuals, between economically developed and less developed countries, and finally between people themselves is altered – perhaps even inevitably.

One of the ideas that outline this paper is the asymmetric way in which temporality influences economic-social entities, respectively their results: (i) for the individual; (ii) for a company / institution; (iii) for society. It is about the sometimes easy, sometimes brutal way in which temporal change is perceived: this is where the symbolic Roller Coaster that I mentioned along the way comes from. Therefore, the sudden rise and equally sudden fall of an entity that does not respect the rules of the game should not surprise us. We should know that temporality means lived experience, presupposing alternatives that economic systems can turn to in the event of more or less profound changes occurring inside or outside them.

Economic-social causality is the second theme of this paper. The quantification of economic time in contrast to the passing of historical time finds its essence in the eternal pressure to which economic entities feel subjected: that of achieving results, winning, and / or evolving in various profile rankings.

The essential coordinate to which we refer in the present topic is the stratification caused by social-economic asymmetry. In fact, time constraints can be as serious as other conditions: of the resources held, of the working methods, respectively, of the results obtained. The lack of time affects the ability of economic entities to react, to search for answers, to make the correct conversion between "useful time" and "carnivorous time" (unnecessary consumer of energy, in chronophagous activities). That is why the initiative of companies that examine the advantages of reducing the number of working days per week (4, instead of 5), in favour of a busier schedule on working days, is at least interesting. The argument for such a decision is, of course, aimed at reconciling private and social advantages, but it can also deepen the already existing inequalities between employees.

The ultimate goal of economic growth is, undoubtedly, development. Consequently, apparently, man and his well-being are a priority for any nation. And yet if this is so, why, in the third millennium, does *the progress of material values (especially wealth) tend to become more important than human progress*? The questioning is justified, we say, as long as in his rush for material advantages, man – the one who should be concerned with his improvement – must concretely resist in the face of challenges and discretionary interests.

Here, in an attempt to quantify reality as correctly as possible, the "time" variable reveals its volatile influence on economic entities. It confirms that we cannot validate stereotypes and that the value "in itself" of economic time differs - in any historical epoch - from its "use" value. Our argument is firm: reality is not completely predictable, regardless of the context in which we try to measure it and the means we use in this sense. But we do not know if the hoarding consumerism (dominated by the dependence of economic systems to consume more and more) will manage to come to terms, over time, with the need to change the paradigm of human existence. The traces of the past do not disappear, but are transposed into the present reality, as undoubted influences. Evolutionary changes must be followed with the utmost honesty. In the peak age of technological innovation, the "touchstone" will be the long-term application of pro-humanity economic policies.

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