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TIME PREFERENCE, GROWTH AND CIVILIZATION: ECONOMIC INSIGHTS INTO THE WORKINGS OF SOCIETY

ABSTRACT. Economic concepts are not mere ivory tower abstractions disconnected from reality. To a certain extent they can help interdisciplinary endeavours at explaining various non-economic realities (the family, education, charity, civilization, etc.). Following the insights of Hoppe (2001), we argue that the economic concept of social time preference can provide insights – when interpreted in the proper context – into the degree of civilization of a nation/region/city/group of people. More specifically, growth and prosperity backed by the proper institutional context lead, *ceteris paribus*, to a diminishing of the social rate of time preference, and therefore to more future-oriented behaviours compatible with a more ambitious, capital intensive structure of production, and with the accumulation of sustainable cultural patterns; on the other hand, improper institutional arrangements which hamper growth and prosperity lead to an increase in the social rate of time preference, to more present-oriented behaviours and, ultimately, to the erosion of culture.

Introduction

Economics as a science is today in an odd position. On the one hand, economic issues are among the most debated topics anywhere: in the media, in parliaments, governments or even over private dinners. On the other hand, it (economics) is a rather young science¹, with relatively few established truths (if any) in the eyes of the general cultivated public. Add to that a peculiar nature (“the science without experiment”) which makes possible (or easier, at least) the survival of the oldest doctrines, schools and theories (say mercantilism) alongside new contributions (say rational expectations), undisturbed by contradiction, and you have got a more complete profile of the “dismal” science. Against this background we will try to argue

¹According to von Mises (1998, p. 1), “*Economics is the youngest of all sciences*”.

that economics should become an element of the general culture because it has very important contributions to the understanding of human nature, society and civilization. It should have its own place at – in the words of the Romanian philosopher Constantin Noica – “*the table of universal culture*”.

We will proceed in two steps. First, after briefly reconstructing the poor image that economics presently has in general (and among other social sciences in particular), we will tackle two instances in which it can be put to work to explain aspects of two important cultural phenomena, for which it is usually deemed utterly unfit: the creative genius, and asceticism. Secondly, we will belabour to a certain extent a few theses of Hans-Hermann Hoppe (2001), as laid out in “*Democracy – the God That Failed: The Economics and Politics of Monarchy, Democracy, and Natural Order*”, with the purpose of showing economics at work in giving important insights which throw light on the broad notion of civilization. More specifically, we will explain the relation between economic progress, civilization and a concept which economists commonly use in their analysis, namely, *time preference*. In the last part of the article we will discuss which indicators can be used and which cannot be used in order to gauge people’s time preferences.

Literature review on economics, cultural phenomena and civilisation

For a long period of time, economics was considered a science which could only explain a narrow part of the human conduct, respectively those actions of men which have the goal of acquiring material wealth (Mill, 1874). The term “*homo economicus*”, describing an agent eager to maximize utility as a consumer and profit as a producer, began being used in the late nineteenth century even in relation to the works of classical economists such as Adam Smith or David Ricardo.

However, more recent works began testing the ability of economics to offer results even in domains which were traditionally considered outside the sphere of economic investigation. Ludwig von Mises (1951; 1998) applied economic analysis to two very interesting social categories: *the creative genius* and *the ascetic*. Other researchers began to write intensively on the relation between commerce and culture (Cantor and Cox, 2009) or even economics and culture (Throsby, 2001).

Still, in our opinion, in order to highlight the most spectacular results that economics can obtain related to the so called “*process of civilization*” in general, one must employ time preference analysis. People’s present- vs. future-orientation is the key in explaining interest rates and economic development (Mises, 1998; Hoppe, 2001; Rothbard, 2009; Böhm-Bawerk, 2011). The idea that interest rates can be used to gauge the development of a particular society is not new to economic thought. It goes back as far as the 1850s, one of its first proponents being Henry Charles Carey (Böhm-Bawerk, 2011). Going one step further and explaining the interest rate as a price on the market, determined by the subjective choices of the individuals (or more exactly the degree to which they prefer present to future satisfaction) was a much more difficult task for economics as a science.

A fair attempt to explain the causal connections between the social time preference, economic growth and the process of civilisation was undertaken by Hoppe (2001) in his book “*Democracy – the God That Failed: The Economics and Politics of Monarchy, Democracy, and Natural Order*”. Curiously enough, a few sociologists (Banfield, 1974) also considered present- vs. future-orientation as an important analytical tool that could be used in order to diagnostic social problems from a public policy point of view. Thus, one can say that the subject of time preference is an interdisciplinary concept which goes beyond the boundaries of economic research.

Regarding the method of inquiry, based on the fact that we consider that economics is a social science, which necessarily studies human actions in which no constant relations can emerge, we will employ a qualitative research. The main analytical tools used will be literature review and verbal logic. We consider that the best way to address the research questions is an *a priori* approach in terms of teleological causality.

The poverty of economics?

The vast majority of people, also including many economists, still consider economics a mundane and material oriented science which is utterly unfit to explain a great number of phenomena. One of the best examples of such a definition of economics is given by J. S. Mill (1874, p. 97): “[Economics] does not treat the whole of man’s nature as modified by the social state, nor of the whole conduct of man in society. It is concerned with him solely as a being who desires to possess wealth, and who is capable of judging the comparative efficacy of means for obtaining that end”. However, we argue that economics, and moreover *praxeology*² – the general science of *human action* – is fit to study much more of the human conduct than the actions related to the accumulation of wealth. Thus, we will apply economic analysis to two important cultural phenomena, the *creative genius* and *asceticism*, and show that the results obtained are indeed worth mentioning. This endeavour is in our opinion important because (i) it will prove that economic theory is able to offer valuable explanations even regarding the two peculiar phenomena which were mentioned above and (ii) it will permit us to link economics (through time preference analysis) to economic growth and the process of civilization.

Economics and the creative genius

Human labour is an extremely interesting aspect for sociological studies. In everyday life human labour exists under a variety of forms. It can be intensely intellectual or intensely physical. It can be creative or it can be repetitive. However, economic analysis normally uses the standard factors of production (capital, land and labour) approach to describe any productive activity. Generally, economists assume the *nonspecific character of human labour* by which they assert not that all human labour is identical in quality, but that the variations in the labour needed for producing different goods and services are larger than the variations in the innate qualities of human beings (Mises, 1998). However, a few questions could arise, such as: *How can one include the work of the “creative genius” under the praxeological concept of labour?* and *How can it (the “labour of the genius”) be incorporated in economic theory?*

Ludwig von Mises (1998, p. 140) has studied these aspects and concluded that the works of the creative genius are for the economic science *ultimate facts*, i.e., phenomena which cannot be further analysed using the economic apparatus. In his opinion, the work of the genius cannot fall under the category of “production” and is not connected to the market. To be more specific, Mises considers that there is no link between the performance of the genius and the demand of the consumers. In order to sustain this point of view we quote the following passage (Mises, 1998):

“Neither society nor single individuals can substantially further the genius and his work. The highest intensity of the <<demand>> and the most peremptory order of the government are ineffectual. The genius does not deliver to order. [...] The creative

² Economics can be considered a branch of *praxeology*. If *praxeology* is the general theory of human action, economics is mainly concerned with the analysis of human action *that determines the formation of money prices for the goods and services traded on the market* (Mises, 1998).

accomplishment of the genius is an ultimate fact for praxeology. It comes to pass in history as a free gift of destiny. It is by no means the result of production in the sense in which economics uses this term”.

Even if von Mises himself was far from being an enemy of economic analysis, we may ask whether he has erred in the above statements or not. It is true that by definition, the work of the creative genius is unique and therefore impossible to reproduce, but why should there be no link between “high art” and the demand of the general public? More specifically, we may ask whether there is a connection between commerce and the genius’s work.

There is no *a priori* reason why a sort of “*consumer oriented genius*” would not be conceivable. To a certain extent, a man is considered a genius because his works are highly appreciated by a great number of people. The works of prodigious artists are, for example, bought and sold at high prices, which shows that such a market actually exists. Even if we assume that the “labour” of the creative genius is irreplaceable and impossible to reproduce, there is no theoretical reason why the genius should not create taking into account the opinion of the general public. Why would there be no feedback between the virtuoso and the consumer?

There is also some empirical evidence in order to sustain this thesis. The best historical example to illustrate this would be that of Charles Dickens, one of the greatest novelists of all time and an ardent critic of capitalism³. Thanks to mass production and product standardization, Dickens managed to sell hundreds of thousands of copies of his works, which made him considerably wealthy. However, even more interesting for the present analysis is the fact that Dickens was one of the first authors who published a serial novel (The Pickwick Papers). There is strong evidence that Dickens planned his novels in close relation with the reaction of his public (Cantor, 2006). Thus, a certain character in the novel was elaborated upon if the sales figures for the magazine increased. This historical evidence offers a modicum of support for the thesis that even great artists considered the impact that their work had on the general public. In fact, many of the great Renaissance painters and sculptors worked on the basis of commissions received from wealthy patrons who valued their genius.

Based on these facts, we argue that the concepts of price, supply, demand and production carry some meaning even in the case of the creative genius. Keeping this in mind, we can now move to an even more interesting case study which requires economic interpretation.

Asceticism and the division of labour

As we mentioned earlier, many people consider that economics can study only those aspects of human life that are related to the employment of means in order to accumulate more wealth. Thus, the logical conclusion drawn from this idea is that economic analysis cannot, for instance, be applied to ascetics. This is indeed a tough test for economics as a science. Again, we turn to von Mises (1998, pp. 178-179), who argues that there is a divergence (antagonism, even) between those who practice asceticism (e.g., monks, hermits, etc.) and the phenomenon of social cooperation through the division of labour.

However, in his discussion von Mises (1998, pp. 178-179) operates with an extreme definition of asceticism, i.e., a man who renounces all material wellbeing and is completely isolated from the rest of society. This person is indeed totally opposed to social cooperation and, implicitly, to the division of labour⁴. Still, it is arguable that such a practitioner of

³ For one of his famous critiques of capitalism and the industrial revolution, see Charles Dickens’s classic novel “*A Christmas Carol*”.

⁴ Another place where Mises (1951) tackles the problem of asceticism is his book “*Socialism. An Economic and Sociological Analysis*”. See especially the second chapter of Part IV (*Socialism as an Emanation of Asceticism*),

asceticism would and could exist in real life. If you would use the logical method of *reductio ad absurdum*, such a hermit or monk could not exist because he would have to renounce all wellbeing, including his most basic bodily necessities such as food or air. One is under the impression that Mises has actually constructed a straw man.

In real life, many practitioners of asceticism, especially Christian ones, are well integrated in society. Moreover, it can be said that they actually produce a number of “*economic goods*” (or goods to which there is an economic side). Among these one could mention confessions, books, advice or suggestions for ethical lifestyles. Given the fact that there is a demand for this type of goods, we can also talk about supply, production and investment. If we would treat the whole process in economic terms, we could consider that the ascetic has *invested* many years (through renunciation and endurance) in order to be able to accomplish the above mentioned services to society. Rephrasing this idea using economic jargon, we could say *a priori* that these people have an extremely low *time preference*, a concept which we will discuss in detail in the next sections of this article.

Thus, we argue that if one employs a more reasonable definition regarding the ascetic, the gap between the practitioners of asceticism and the division of labour clearly diminishes. The two concepts do not appear as antagonistic anymore, as von Mises (1998, p. 87) seems to consider. Moreover, the problem of asceticism can be expressed in economic terms, if one can appreciate that the ascetic is investing scarce resources in order to attain a certain goal.

Economics, civilization and progress

We have argued so far that economics can be applied even to complicated cultural phenomena like asceticism or to the work of the “creative genius”. Thus, economics, and moreover praxeology, offers valuable results even when applied to actions which are not solely concerned with the accumulation of material wealth. However, we will further show that in the case of economic growth and civilization, the results obtained by employing economic analysis are even more spectacular.

Time preference and economic progress

The questions that this section will try to answer are rather fundamental and interdisciplinary. In order to explain what exactly determines economic growth (1) and what triggers what we call today *the process of civilization* (2), sociology also needs to employ economic analysis. Fundamentally, economics is a social science, because it deals exclusively with human action, with rational choice.

It is clear that in order to speak coherently about civilization, inclusion of economic progress as an essential component is a necessary prerequisite. A state of hand-to-mouth existence provides utterly inappropriate incentives which could lead a society from barbarism to civilization. One must first fulfil his basic needs (food, shelter, etc.) in order to pass to the more evolved ones, as proposed by Dr. Abraham Maslow in his 1943 paper “*A Theory of Human Motivation*”, which discusses his “*Hierarchy of Needs*” theory⁵, diagrammatically represented by his famous pyramidal structure depicting the evolution of human needs.

the first subchapter of which is entitled “*The Ascetic Point of View*” (p. 404). Here asceticism is associated with “*withdrawal from the world and denial of life*”, the foremost embodiment of which Mises considers (after Weber) to be Jainism. For another taste of the Austrian author’s view see the following quote: “*The ascetic ideal is the ideal of voluntary death. That no society can be built up on the ascetic principle is too obvious to need closer explanation. For it is a destroyer of society and life*” (Mises, 1951).

⁵ Although we do not want to suggest that Maslow’s theory regarding the hierarchy of needs is more than a collection of empirical observations. It does not provide any *a priori* truths.

One key to explaining both economic progress and the process of civilization lies essentially in understanding the economic concept of *time preference*, which can be shortly defined as *the degree to which people prefer present to future satisfaction* (Rothbard, 2000). It is clear that *ceteris paribus*, a man will always prefer to consume the same good sooner, rather than later. Present goods will every time be considered more valuable for the acting man than future goods, essentially because time is constantly a scarce resource (Hoppe, 2001). This is the reason why present goods are always exchanged for future goods for a premium – the interest rate⁶. Thus, 2.000 dollars today will always be more valuable for an individual than 2.000 dollars available in one year, other things remaining equal.

The concept of time preference is not confined to economic analysis alone. To a certain extent, sociology also uses similar analytical instruments in order to suggest present- vs. future-orientation (Banfield, 1974)⁷. Thus, any science which is concerned with the study of human beings must take into consideration the different planning horizons which various people have for various actions (or, more exactly, the *willingness* of individuals to postpone present satisfaction).

Economic growth, on the other hand, can be defined as the increase in the average productivity per worker employed (Hulsmann, 2011), thus an increase in the total output of consumer goods in a given society⁸. Of course, economics cannot say whether economic growth is a desirable goal or not. Economics is essentially a *value-free* science and it cannot make any normative statements (Rothbard, 1997). If the critics of materially advanced cultures consider that living conditions were better fitted for human flourishing in ancient Greece, economics cannot give a counterargument. What we *can* say is that empirically, the vast majority of people will prefer economic growth and material wellbeing (Mises, 1998).

However, what a given society needs in order to experience economic *growth* is an increase in the amount of present resources which would be saved and invested (Hoppe, 2001; Hulsmann, 2011). If an individual would consume all of his present resources, it is clear that no possibility⁹ for an increase in future consumption would exist for him. The best example in

⁶ The interest rate is actually a very good indicator which shows whether a society is more present- or more future-oriented. If a society has an interest rate of, let's say, 35 per cent it is clear that the people in that society are very present-oriented. Economic growth in such a community would be much slower than in a community with an interest rate of 5 per cent, because in the latter case it is far cheaper to acquire resources and invest them in productive activities.

⁷ The following quote suggests that Banfield (1974, pp. 53-54) considers that time preference is a useful tool in sociological analysis:

“For the purpose here - namely, analysis of social problems from a policy standpoint - the most promising principle seems to be that of psychological orientation toward the future. Consequently, in what follows in this and later chapters, much will be made of the concepts <<present->> and <<future-orientation>>”.

However, Banfield seems to consider that present- vs. future-orientation are traits which are characteristic for different social classes. Whether this assertion is true or not is not the concern of the present article.

⁸ It is true that the definition of economic growth (as an increase in the total quantity of consumer goods) raises a few practical problems, mainly because it uses aggregates of heterogeneous goods. One could easily encounter in the real world a society in which the production of apples increases by 200 per cent, while the production of olives decreases by 25 per cent. It is hard to say whether that society is experiencing economic growth or not. However, the term usually refers to a general increase (a systematic growth tendency) in the production of most consumer goods (Hulsmann, 2011).

⁹ Excluding the possibility of finding nature-given consumption goods which the hypothetical person would just have to reach out and consume. Carl Menger (2007), for example, considers that economic growth essentially means the capacity of people to increase the control of natural external conditions which can be combined in order to yield consumer goods. The more will human beings be capable of transforming nature given *things* into capital *goods* (goods that can be used to produce consumer goods), the less will they be at the mercy of natural phenomena, as Menger (2007, p. 74) explains in his “*Principles of Economics*”:

“Increasing understanding of the causal connections between things and human welfare, and increasing control of the less proximate conditions responsible for human welfare, have led

order to underline the necessity of saving and investment as prerequisites of economic growth is to imagine Robinson Crusoe stranded on a deserted island. He can catch two fish per day using his bare hands, or he can manufacture a fishing net and catch five fish per day with it. Let us assume that Crusoe can survive eating one fish per day and that in order to build the net he would need seven days of work. Crusoe is thus faced with a choice: he can either survive on two fish per day, or he can temporarily restrict his consumption for a week, eat one fish per day and increase his productivity by 150 per cent (consequently consuming more in the future).

The same reasoning applies to any society: the more people save and invest, the more consumer goods will be produced in the future. Of course, the structure of production – the totality of productive activities that eventually lead to consumer goods – in more economically advanced societies is extremely complex¹⁰. However, the main idea is that all the productive activities are structured in different stages. As Carl Menger (2007, p. 52) points out, economic goods can be classified by their temporal distance until final consumption. Thus, consumption goods can be considered goods of the *first order (1)* while producer goods¹¹ can be considered goods of the *second (2), third (3), ..., n-1, n order*. Goods of the third order, for example, will be used to produce goods of the second order, which will be also employed in producing goods of the first order. If one would use wheat in order to produce flour and after that, the flour would be used to bake bread, we would have a production structure in which wheat is a good of the third order, flour a good of the second order and bread will be the final consumption good.

A fundamental thesis in economics is that a temporal increase in the production process must necessarily lead to an increase in output, either in quantity or in quality (Hoppe, 2001). Otherwise, given the fact that, as we mentioned earlier, people prefer present to future satisfaction, nobody would, *ceteris paribus*, ever select a production process which is lengthier than another, but achieves the same result¹². In order to employ a longer process of production, people unavoidably need to save and to accumulate the goods which are necessary for the satisfaction of needs during the longer period of time until consumer goods will be finally completed (Hoppe, 2001). Thus, any increase in saving and investment will lead to an increase in the accumulation of capital goods, which will lead to a lengthier structure of production and an increase in the marginal productivity of labour (Hoppe, 2001). Taking into account that the workforce, supplied with better tools and equipment, will produce more, the workers will also be better paid and everybody's standard of living will necessarily increase. Thus, society as a whole will be better off from an economic point of view.

Now that the mechanism of economic growth was explained, we can return to the previous question: What exactly determines economic growth (1)? The answer is almost immediate: *the time preference* – the utility that people attach to present versus future satisfaction. Of course, these valuations can differ from one individual to another and also from one moment in time to another. It is nowhere but in the subjective choices of each

mankind, therefore, from a stage of barbarism and the deepest misery to its present stage of civilization and well-being”.

¹⁰ So complex that usually economists have used an imaginary construction named *The Evenly Rotating Economy (E.R.E.)* to study it. This construction eliminates any possible changes within society and reduces individuals to automatic machines which repeat the same actions over and over again. However, the previously mentioned imaginary construction permits the study of such complex phenomena as the alterations in the length of the structure of production (Rothbard, 2009).

¹¹ Or *capital goods*, defined as goods that produce either consumption goods or lower order capital goods.

¹² Of course, human error is excluded from the analysis and technological progress is considered constant.

individual that time preferences lie. Thus, in order to accumulate savings and to increase the period of the production process¹³, a decrease in people's time preferences is necessary.

Time preference and the process of civilization

After explaining the determinants of economic growth, we can now return to the second question which is of particular interest and which was formulated above: *What exactly triggers the process of civilization* (2)? In addition, we may ask: *What precisely is the connection between civilization and economic growth, if any* (3)?

The concept of civilization or the "*process of civilization*" is rather difficult, if not impossible to define. People attach different *cultural, ethical, economic* and *technological* connotations to the word "civilization", but a consensus regarding the exact meaning of the term has not been reached. The Oxford dictionary (2010), for example defines the term "civilization" as the "*stage of human social development and organization which is considered most advanced*". However, *human social development* could mean anything from advanced technology to spiritual values. A more detailed, although practically all encompassing definition, is "*a human society that has highly developed material and spiritual resources and a complex cultural, political, and legal organization*" (Collins English Dictionary, 2012). If you had to choose from a group of societies, it would still be extremely difficult to say which society is more civilized (or more advanced), mainly because you would have to compare a great number of non-homogeneous characteristics. If country A is more technologically advanced than country B, but country B is more spiritually developed than A, which one of them is more civilized? Nevertheless, the most important fact is that most of the definitions include both material and spiritual advancement under the notion of "civilization". Thus economic development (or growth) is usually included in the larger concept of "civilization".

We have already suggested that economic growth, the material aspect of civilization, depends on the *social time preference* of a given society. Still, we have not explained the relation between time preference, if any, and the nonmaterial conditions that a society must fulfil in order to be considered civilized. In this case, economics cannot give us absolute truths. There is no *a priori* reason for which a future-oriented society must necessarily be culturally or ethically evolved¹⁴. The extreme cases of time preference schedules are rather suggestive. If a group of individuals would have an tremendously high time preference (which tends to infinity), it can only mean that they would be, as Hoppe (2001, p. 3) succinctly remarks, "*...leading a mere animal existence, i.e., eking out a primitive subsistence living by encountering reality with nothing but one's bare hands and desire for instant gratification*". It is hard for anyone to consider such a *hand-to-mouth* type of society spiritually enlightened. After all, both art and education need investments in human capital – investments which, in turn, entail a relatively low time preference. Learning in order to improve one's condition requires both saving and investment. If one does not read a book strictly as consumption activity, i.e., just for the purpose of enjoying oneself, but instead wants to improve one's knowledge, one is engaging in a productive activity. Thus, a certain (low enough) level of time preference is needed even in order to improve the non-material aspects of a certain society.

¹³ The relation between a lengthening of the structure of production and a decrease in time preference is *apodictic*. If consumers would not be prepared to wait more than before, no entrepreneur would employ a lengthier production process.

¹⁴ It is possible to imagine a very long term oriented society which is, from a technological and material standpoint, extremely advanced, but which is spiritually less evolved. The opposite scenario is also conceivable – a society which is technologically and materially less evolved, but which is extremely rich in moral and ethical values (monks would be a good example of such a group of people).

The other extreme case would be if all the members of a particular group of individuals would have an exceedingly low time preference (near zero). That implies that they would practically not consume anything in order to invest all the current resources. Of course, such a society could not last indefinitely because human beings cannot survive without consuming (at least in order to fulfil their most basic needs). An interesting example of such a case would be the hermit, because he has invested nearly all his resources (even spiritual ones): he has therefore greatly restricted his consumption in the present life, “in order to consume more in the afterlife”. If the hermit’s goal is spiritual salvation, and if he is not a hermit just because he feels good about it, he is engaging in a productive activity. He is employing means in order to achieve a desired goal.¹⁵

The indicators for the level of time preference

One of the main theses of this article is that, as we have previously explained, the social time preference is the central cause for both economic growth and for evolving from “barbarism” to “civilization”. However, we may ask how anyone can possibly see whether a society has a high, or a low time preference. More specifically, is there an indicator that shows whether individuals are more present-oriented or more future-oriented?

The main indicator which an outside observer could use in order to gauge the time preference of a particular group of people is the interest rate (Hoppe, 2001). The interest rate can be defined as *the premium* for which one can exchange present money, for future money. A high interest rate would show that people in a given society are relatively present-oriented, that they would prefer to consume now, rather than later. Consequently, fewer resources will be saved and invested and economic growth will be relatively lower. Entrepreneurs could not expand their productive activities because credit would be highly expensive. On the other hand, a low rate of interest shows that there is a relatively high amount of resources which were not consumed and which are ready to be invested in efficient production processes. Credit is cheap because people are willing to lend their money. Entrepreneurs on the market begin expanding their activities and invest in longer production processes in order to better serve their clients. Economic growth and development necessarily takes place¹⁶. Based on these premises, H. H. Hoppe (2001, p. 63) draws the following conclusion in his book, “*Democracy – the God That Failed*”:

“Under normal conditions – that is under the assumption of increasing standards of living and real money incomes – the interest rate can be expected to fall and ultimately approach, yet never quite reach, zero, for with rising real incomes, the marginal utility of present money falls relative to that of future money, and hence under the ceteris paribus assumption of a given time preference schedule the interest rate must fall”.

¹⁵ This represents further proof that economic analysis can be also applied to non-monetary issues, as we pointed out above.

¹⁶ The previous conclusions regarding the interest rate were drawn by employing economic analysis in a free market. The interest rate is a price (the price for waiting) and it appears on the market as the intersection of supply and demand. It is a necessary consequence of the actions of all the actors on the market and reflects the valuations of all of them. It is only on the free market that the interest rate gives us important information about people’s time preferences. Today, we live in a society where the interest rate is manipulated by monetary authorities. Central banks constantly intervene on the loan market, through a number of methods, and divert the interest rate from its normal level (the level at which the interest rate would reflect the situation on the market – i.e., people’s choices). Of course, such an intervention is not free from consequences. A great number of economists (e.g., L. v. Mises, F. A. Hayek, H. H. Hoppe, M. N. Rothbard) are of the opinion that monetary intervention in the economy leads to the occurrence of economic crises.

Hoppe practically applied economic analysis in the specific case of time preference in order to reach this conclusion. The previous paragraph basically states that if people will earn higher wages, each additional unit of present money will be valued less than the previous one if all the other conditions are kept constant. Consequently, each additional monetary unit (received in the present) will be employed in order to fulfil a less urgent need than the previous one and its utility will fall as compared to future money. Yet even more interesting is the fact that based on the previous theorem, Hoppe (2001, p. 63) also asserts that “*a tendency toward falling interest rates characterizes mankind's suprasecular trend of development*”. This thesis makes some sense taking into account that, as we have stated above, there is a close link between time preference, economic progress and the process of civilization (Böhm-Bawerk, 2011). Moreover, Hoppe (2001, p. 62) also gives empirical evidence in order to support this thesis. The most conclusive empirical example is that the interest rates in Europe decreased from 8 per cent in the thirteenth century, to 5 per cent in the fourteenth century, to 3 per cent in the seventeenth century and finally to less than 2.5 per cent in the nineteenth century.

However, it is even more interesting to explain the “anomaly of the twentieth century” from this perspective, because in the twentieth century the interest rates were considerably higher than in the nineteenth century. Hoppe (2001, p. 62) could only conclude that if people had higher incomes, and statistically they did, the only explanation could be the fact that the *ceteris paribus* condition was not fulfilled and that “*the social time preference schedule must have shifted upward. That is, the character of the population must have changed. People on the average must have lost in moral and intellectual strength and become more present-oriented.*” Although we can agree with Hoppe that the social time preference *must* have changed and that indeed people became more present-oriented, neither praxeology nor economic analysis can say whether the population had lost in moral or intellectual strength or not. Time preferences, as any other type of subjective utilities, are for economic science ultimate given. Therefore, as economists, we cannot explain what exactly determines the subjective value scales of individuals¹⁷.

Although the interest rate is indeed a good indicator in order to gauge people's time preference, other indicators are rather less than perfect. Hoppe (2001, pp. 66-67) mentions that indicators of *family disintegration* and the *rate of crimes* (robbery, theft, murder, assault, rape and so on) are also good signs in order to estimate the phenomenon of social time preference. It is true that, for example, if people have a very short planning horizon – that is a high time preference – they will generally be less inclined to found their own family. However, there is no *a priori* logical reason for which this statement *must* be true. One can easily conceive a man, who has an extremely large planning horizon and who saves 95 per cent of his present income, but who, for whatever reasons, wants to remain single. The situation is slightly more problematic, as in the case Hoppe (2001, p. 65) mentions, when there is a *systematic tendency* towards dysfunctional families. However, given the fact that in real life the *ceteris paribus* condition is not fulfilled, economics can only assert that if there are more dysfunctional families, then people's preferences (and not necessary only the time preferences) have changed. The same is true with regard to crime. The crime rate as an indicator for time preference raises again some important problems. The classic argument is

¹⁷ The only statements economics as a science can make about a person's value scale (or preferences) are *ex post*. Economics heavily employs the concept of *revealed preference*. If anyone pays six dollars for an apple, all that we can say about that person is that at that specific moment in time the apple was higher on his values scale than six dollars. Thus, he has revealed that he *prefers* an apple to six dollars. If we apply the same analysis in the case of Hoppe's statement we can say that because the interest rate has increased, people generally have a higher preference for present money as compared to future money. Any statements regarding the morality and intellectual strength of the people simply do not result from that specific context (or at least not by applying praxeological analysis).

that exchanges on the market require work, planning, sacrifices and most importantly *patience*. Criminal activities practically offer instantaneously satisfaction. Why work and wait in order to receive an income when you can rob other people of their money? Indeed, the possibility of being caught and punished can be considered a deterrent for such activities, but because it lies in the future and it is uncertain, the immediate satisfaction of a crime can be considered tempting for present-oriented people (Hoppe, 2001).

However, time preference is defined as *the degree* to which an individual prefers present to future satisfaction (Rothbard, 2000). By definition, consumption is present satisfaction while savings, investment and capital accumulation all have the goal of increasing future satisfaction. Nevertheless, time preference can only give us information about the *degree* – the *intensity* – to which people prefer present to future satisfaction and not about the *kind* of satisfaction people would prefer. All that time preference theory states is that, *ceteris paribus*, satisfaction of a given want in the nearer future is preferred to that in the more remote future (Mises, 1998). Thus, time preference theory does not say anything about *which type* of wants people should satisfy. For example, a murderer who prefers to kill a person later (premeditated murder) shows a lower time preference than a murderer who would prefer to kill his victim at the very instant. Of course, the whole concept of social time preference raises the same problems as any other aggregate because it is assumed to reflect the cumulative time preference of all the people which vary from man to man, from one moment to another and from want to want.

The most that anyone could say is that, indeed, more present-oriented people – i.e., those with a higher time preference – could have *an incentive* towards vagabondage, drinking and drugs, gambling, hedonism, laziness, criminal behaviour, superficial social relations and so on.

Conclusions

In the first part of the present article, we have argued that economics is not a “dismal” science that applies only to the mundane and material oriented aspects of human life, i.e., those aspects concerned solely with the accumulation of wealth. Thus, economic analysis can offer us valuable results even if it is applied to situations like asceticism or to the work of the “creative genius”.

Secondly, we have shown that economic progress is driven by savings and that people decide the proportion between savings and consumption according to their time preference (the degree to which they prefer present to future satisfaction). Moreover, any decrease in the social time preference will lead to a lengthening of the structure of production, which will in turn increase the average productivity of labour.

Finally, although the concept of “civilization” is extremely complicated, if not impossible to define, we consider that a minimum of economic progress is a necessary prerequisite of civilization. Consequently, following the work of H. H. Hoppe (2001), we argue that there is a certain relationship between the “process of civilization” and the social time preference of a given society. The best indicator one can use in order to gauge people’s time preference is the interest rate, in case the loan market is not subject to government control. Although other indicators exist, we maintain that they are imperfect and that they cannot offer us solid information regarding the social time preference.

Regarding the usefulness of the present study, we consider that these theoretical implications might be fruitfully employed in historical analysis. Examining and comparing the trends of interest rates belonging to different countries can offer us valuable information regarding the level of development/civilisation of those respective societies. However, one

must keep in mind that interest rates may be used in this kind of studies only if they are formed on the market, through the free interplay of supply and demand.

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