

THE ECOLOGIST SPIRIT UNDERNEATH AUSTRIAN ECONOMIST CLOTHES

Elena Bianca Vieru

*Ph.D Student, Alexandru Ioan Cuza University Of Iasi, Romania, Doctoral School Of Economics
And*

*Lorraine University, Nancy, France, Ecole Doctorale D'economie, Bureau D'economie Théorique
Et Appliquée (Beta)*

*vieru_elenabianca@yahoo.com ,
Elena-Bianca.Vieru@univ-lorraine.fr*

Abstract

Capital is strongly related to growth and development. Unfortunately, nowadays not many are those who actually understand the meaning underneath these connections. Our main concern becomes providing strong proof for the idea according to which a misallocation of capital betrays disastrous consequences, both from a pure economical as well as from an ecological perspective. Thus, the purpose of our paper finds its roots in revealing the answer to the question whether society requires a new economico-ecological mentality oriented towards a sane and efficient resource allocation along the productive process. The response we found is that it desperately does so. Formulating the argument benefits from the Austrian School precepts as it bifurcates into separate paths to follow along the paper. The first one highlights our main assumption according to which Austrian economics are, from a certain perspective, ecological oriented as their capital theory is thoroughly linked to an environmental friendly growth. The second trail entails the development of a plan under the form of possible solutions for escaping the recurrence of imbalances. A considerable part is also allocated to pointing out the main indicators that emphasize the guiding alarm signals: prices and private property.

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JEL Classification: *B53, E32, E43, N50, O40*

1. Introduction

“...waste is merely raw material in the wrong place” (Talbot, 1920, p.11).

Ecology, as an independent science, requires a symbiosis between the organisms and factors that compose the environment and the environment itself, with primary emphasis on the idea of protecting the ambient space. The principles that become its basis metamorphose in the very core of harmonious economic development. From this point on, the idea that the economy can and must be defined as a sort of human ecology, a form of coexistence in which compliance with rules of conduct related to the dose of common sense and conscientious of citizens, as well as of their delegated authorities, takes more and more shape.

An essential aspect which is required to be specified, in order to complete the argumentative power of our research, is the idea that between Austrian theory and ecological economics there are more similarities than differences, considering that both approaches embrace a set of common values. This common set consists, broadly and in the idea of information strictly relevant to the chosen slice of the problematic to be treated in this article, from the common perspective over a significant deficit of existing resources, a shortage aggravated by their misallocation along the productive economic processes and also the coordination problem between them. As Hayek used to say: *“Any natural resource represents just one item of our total endowment of exhaustible resources, and our problem is not to preserve this stock in any particular form, but always to maintain it in a form that will make the most desirable contribution to total income. The existence of a particular natural resource merely means that, while it lasts, its temporary contribution to our income will help us to create new ones which will similarly assist us in the future”* (Hayek, 1960, p.374). The problematic of pollution or other such sides of the subject will not be referred to in this paper as it requires a separate approach. We will only be dealing with the topic from the perspective of resource savior. And, according to the permanent development and the sustained economic growth encountered nowadays, our approach appears to be quite relevant.

The representative figures of the Austrian School of Economics acquire their vast knowledge of economics, and beyond it, focusing on a wide range of issues rose in discussion. However, the starting off point of this paper is a particular piece of the Austrian Business Cycle Theory, precisely the one regarding the structure of capital inside the productive, capitalist process. First of all, we centered our attention on the distinction between the influences of two

different schools of thought that are to be found inside the very Austrian School. We are referring, first, to the subjectivists broach that follows Menger ideas regarding the valuation of production goods and factors as contributors to the capitalist process¹. According to Menger, if there is a great need and the resources are scarce, then economic goods have value. If, conversely, the need is low and the amount of resources exceed demand means that non-economic goods are without value. We believe, however, that nowadays this classification is not as relevant as it used to be because people's need is becoming greater as the amount of available resources is constantly shrinking.

Secondly, the ideas gravitate around Böhm-Bawerk's approach of capital². His particular capital theory places an essential accent on the time structure of production. We will base our paper especially on the latter perspective. In addition, Böhm-Bawerk's vision of capital is designed to correspond to his idea of production process. The significant and representative distinction is made between final consumption goods and the production or true capital goods used in the multi-stage production process. We are considering the second category as it is the one that implies a correct resource management.

The paper is structured as follows. The second section highlights the role of capital as a resource that implies additional costs in the form of time and money through its partially renewable character while the third chapter provides a brief overview of the capital theory, placing a significant accent on the possible therapeutics for the recurrence of crises. The answer to our inquiry as to why the real capitalism can be seen as a resource savior, along with the conclusions regarding the chosen topic are to be found in the fourth, respectively the fifth section.

2. Capital as a Partially Non-renewable Resource

Ever since the late 1700s, Thomas Malthus raised the issue of food availability as a necessary factor to ensure the continuity of the English population (Malthus, 1960). A half century later, Stanley Jevons also questions the problematic of resource availability, this time bringing into light the affordable coal to fuel England's industrialism: *“For the present, our cheap supplies of coal, and our skill in its employment, and the freedom of our commerce with other wide lands, render us...out of the scope of Malthus' doctrine”* (Jevons, 1865, p. 153). All these examples can be taken as a sign regarding the fact that the resource scarcity problem has been raised quite a long time ago. At the beginning of the XXIth century, this concern, which became as real as possible, has gained quite worrying proportions.

Over time, quite a lot of ink has flowed regarding the issue of capital. Therefore, from Marx to Huerta de Soto, many were those who tried to define it in a manner as comprehensible as possible. We stopped at two definitions that seem to highlight its very essence. The first that we chose belongs to the father of capital studies, Böhm-Bawerk. Thus, a suggestive statement can be found in the opening pages of his *Positive Theory*: *“Capital is nothing but the sum total of intermediate products which come into existence at the individual stages of the round-about course of production”* (Böhm-Bawerk, 1930, p.14). The second comes from a contemporary direction, namely from Jesus Huerta de Soto who defines capital as: *“The intermediate stages of each production process, subjectively assessed by the actor, are named capital goods; in other words, it will be considered capital good any stage, assessed subjectively, in which the entire production process is materialized or undertaken by the actor”* (Huerta de Soto, 2011, p.77).

As we already stated, capital is strongly related to growth and development, as well as with an intelligent resource allocation. Thus, a very well thought use of capital, under the form of the existing resources, is required. Because uncertainty pervades economic action and because the capital beneficiaries of a lifestyle with limited character, nowadays it can be found in a profound state of imbalance.

The concept of capital can be described and understood at its real value only in a market economy as it embodies the essential element of entrepreneurial planning: *“It is an estimate of the market value at a definite date of a particular business plan”* (Cochran, 2004, p.21).

It is well known that almost all goods possess, as a main character, perishability. The ones that aren't to be found in this state from the beginning, manage to gain it throughout the production processes they are submitted to. In addition, part of the capital goods are used frequently in production yet other parts are used only once or few times. This might take days, months or years without altering their depreciative character. However, every capital good develops a particular life cycle thus making its depreciation embrace different levels from one to another.

Capital is the result of previous efforts, becoming a sunk cost. It cannot pass the transformation process without suffering modifications that imply additional costs³. Thus, the capital that has already been used is partially to totally damaged, depending on a series of factors that have affected it along the way. Nevertheless, in the situation where it can be reused, one can only do so through supplementary costs and almost never in this unmodified form, after it had been extracted from his other use inside different productive processes. In this regard, a suggestive example comes to confirm our suppositions. Let's take the case of an old farm that used to provide the needed animal nutrients for a little village that was formed around it. Time passage has led to further deterioration and abandonment of the farm, although the initial investment stage was at very high rates. The current status reflects an unyielding nature of most of

¹ In this regard, see Menger (2007).

² See Böhm-Bawerk (1930).

³ These additional costs include, besides the effective monetary investment, the use of natural and limited resources that form other capital goods needed to complete the transformation.

its capital, a sunk cost that, under these given circumstances, basically provides no alternative use. Although it is true that capital has both a fixed (plant and equipment) and a circulating part (goods in the making and in inventory), the normal distinction between them has no value at this point as they are both considered to be limited resources. In the case of the farm, a rather high investment, manifested through the use of the necessary additional costs mentioned above, could bring the business back to life. Hence, a very important aspect that needs to be highlighted, and to which we will return, in repeated occasions throughout the article, is that natural resources are part of the capital, having a permanent limited character. Therefore, its usage and intelligent combination along the production processes is essential for the proper functioning of the economic apparatus.

One of the essential attributes of capital is that it is heterogeneous. And when we state that we not only refer to it as a characteristic but also as to how a person can make use of it. The idea is simple to follow. If we hold only a few objects that have similar characteristics, they may still not resemble at all when viewed through the different uses that may be assigned. Luck comes from the fact that, having at the disposal a competitive market where we can launch these objects, they might obtain unlimited usage character because they can be combined in different smart ways in order to create more under the form of further to be used capital or final consumption goods. Only the scarcity of a valuable resource can limit the cluster of innovations that may be created. However, in a situation of this kind, we can also imagine different possibilities to make the best out of it, by involving it in truly yielding processes. This is when the true entrepreneur spirit comes in. As Lachmann points out, “*Once we abandon the notion of capital as homogeneous, we should therefore be prepared to find less substitutability and more complementarity*” (Lachmann, 1977, p.199).

An erroneous perspective settled upon the heterogeneous property of capital, namely the quantitative one, bares, according to Austrian economists, the guilt for creating policy errors related to the connection between the level of interest rates and the magnitude of investment. In addition, capital is not easily malleable. If it were, nowadays, we would not be talking about misallocation, as a direct repercussion of inflation through credit expansion. Yet, in real life, the misallocation equals a waist in precious resources; it is a loss of an entrepreneur who guided his actions according to the signals transmitted by the so-called free market. This sector is part of the capital theory, a complex but perfectly intelligible subject that will be dealt, more extensively, in the following chapter of our paper.

3. Capital Theory. A Solution for Avoiding Crises

The Austrian Business Cycle Theory is the most representative and solid contribution coming from the Austrian School of Economic thought. A superficial decomposition becomes the capital theory combined with the monetary one. Our attention will be drawn upon its former aspect as we consider it to be widely related to one of the most powerful and problematic issues that the world has to face nowadays.

Our aim for this chapter is to answer, as clearly as possible, first to the question as to how does the capital theory, through its inter-temporality, relates to an efficient resource allocation. Secondly, we will try to clarify why the real capitalist process, characterized through a prolonged production, could be a resource savior. The proposed therapeutics will be extracted from the answers as well. Nevertheless, in order to develop pertinent explanations, we need to provide a brief survey on the Austrian Business Cycle Theory, especially on the capital aspect.

Broadly, the business cycle can be explained as follows (Rothbard, 1970): in a harmonious market economy appears an expansion of loans and money, encouraged and promoted by governments and central banks. As the banks increase their money supply (currency or deposits) granting loans to companies, they push the interest rate below the natural rate of time preference, meaning under the rate of the free market that reflects the public willing proportions between consumption and savings. The first visible effect is therefore a relative⁴ increase in the prices of all the materials required in production. As the prices of production goods will grow in an increasing direction, the profitability of investments will tend to decrease. If credit expansion does not accelerate, the increase in the prices of production goods will catch up the consumption prices, causing a drastic decrease in profitability. The crisis is triggered when, at the existing prices, producers cannot sell their goods (Mises, 1981). Entrepreneurs realize they were horribly mistaken during the boom and try to save what they consider to be worth saving but sometimes, during this particular process, they tend to fall on the abyss of a great mistake again because they borrow money and invest precious resources in a business that could have been declared dead from the beginning. Hence, during the recessions that follow the artificial boom period, resources need to get rearranged and certain projects require abandonment. In the best scenario, it takes quite a long period of time for all the different types of materials, tools, and equipment to be furnished and to generate growth. Yet there is also a great number of resources and materials that cannot be saved, not even with a massive recovery program. They are completely destroyed and this aspect, in time, can become a serious impediment in the path towards growth and development.

An example that speaks for itself and comes to support our statements is the massive housing bubble which started to form in 2001 and exploded in 2007. There was a harmful consumption of materials as entrepreneurs, misguided by the price signals, erroneously thought in the rising values of houses and in their capacity of

⁴ The concept of relative increase in prices refers to the prices of production goods in terms of consumption goods.

compensation. In other words, had they realized that their real-estate holdings would plummet in a few years, they would not have consumed nearly as much. They were consuming capital recklessly, without realizing the future implications.

We would now like to focus on the statement that underlines an increase in the prices of materials due to an erroneous economic approach. Normally, in a market economy, this augmentation of prices takes place if there is a lack of that particular resource, raising alarm signals to the entrepreneur regarding the scarcity of materials and on the maneuver of switching to a substitute good or to develop new technologies for prolonging its participation in the productive process. An increase determined by exogenous factors can only lead to misinterpretations thus misallocations.

Böhm-Bawerk's *Positive Theory of Capital* demonstrated, among other important aspects, that a growing economy can only survive through a longer and longer period of production. Capitalists save money or use the money saved by population through honest loans, create roundabout production by hiring labor force to work with the resources and materials bought with the money obtained from the loan, then wait until the final product is sold to receive profit. Profit is the signal that not only recognizes but also rewards a good allocation of resources and a good coordination of production. Hayek continued this idea placing a particular answer on the temporal structure of production.

According to Austrian economists, the idea of a capital structure consisting of numerous stages of production permits the market forces to adapt to the existing and required needs and relating current employment of labor to the future output of consumption goods. The concept of *inter-temporal* coordination plays an essential part for Austrian economists because it represents their image of a capital-using economy. Basing the analysis of the coordination of economic activities on the production structure reveals the knowledge that economic agents already possess concerning these very structures.

A structure of production can be designed for all economic goods. At one of its margins we would place the consumer with its final purchased good while at the other margin we can find the proposed and used input, precisely the most remote good from the expectancies of those who desire to purchase it. Between these two so called margins, the complete production process reveals itself. And if we chose to think about a futurist machinery as an output, then this process develops a structure containing a complexity not quite easy to portray. The relevance of this aspect regarding the topic of our paper might be easily sketched as this prolonged process permits a permanent renewal of capital, blocking its progressive deterioration. On the other hand, resources beneficieate of the required period of time for a good analysis in order to be found in accordance with consumer preferences. A process that develops during numerous stages of production permits the usage of resources and materials under the form of a concise purpose and is attributed to a healthy and durable economic growth.

The basic idea that we are trying to bring to light is that true capitalism implies a rational use of resources without arriving to the point where the economy has to face the problem of crises as a result of malinvestment and having wasted precious resources that could have had a truly efficient use. Sound money designs a financial environment where economic crises, associated with misdirection of resources and malinvestments, can be avoided and where monetary calculation can be as efficient as possible.

We subscribe to the ideas of the eighteenth century French economist Turgot who wrote: "*To assume it to be possible to prevent successfully, by regulation, all possible malpractices ... is to sacrifice to a chimerical perfection the whole progress of industry; it is to restrict the imagination of artificers to all narrow limits of the familiar; it is to forbid them all new experiments*" (Gordon, 2011, p. 108). Imagination determines individuals to focus on the most important problems and find the proper solutions. The private sector represents the key towards stimulating imagination, such a necessary ingredient for a good combination of resources leading to creative economic development.

4. Why True Capitalism is Resource Savior

True capitalism embraces, from a certain point of view, the perspective of the Austrian School doctrine. It equals market economy, the ambiance where the entrepreneur, meaning the capitalist, along with his innovative visions, has the leading role. It is a "*Universe in which the supreme clock, the market, pendulates, causal and imperturbable, between supply and demand*" (Pohoată, 2003, p.65).

Austrian economists pay a primer attention to the creative spirit as well as to the idea of invention that, taken together, form a cluster of reforming ideas in the economic sphere, in general, and in the productive sector, in particular. In this respect, the ingenious mind of the entrepreneur is on a permanent desire to innovate and to create new combinations from the existing resources. New products, innovative modalities of using the technical support, creative ways of exploiting the natural environment, these are only few example of continuous struggle for astounded and always trying to overcome their current state. And this, with a use as scarce as possible of these resources that he has at his disposal, as in this maneuver, would also help him save and create more out of less. The innovative activity of the individual and his successful use of new knowledge require a new coordination of the activities as well as a new and prosperous inter-temporal coordination. In other words, inside the capitalist mode of production lies a powerful

dynamic element that is inherent to its own nature. Thus, driven by an unwavering will to augment profit, the capitalist becomes environmentalist in the sense of resource savior. This is the basis upon which these constantly improved activities and the dynamics of market activities are built. It is, therefore, raised the problematic of optimization and maximization, more specifically, the optimization of production and the maximization of profit. Therefore, within the entrepreneurship doctrine lays a creative spirit, quite similar to that of an artist. We are referring to the perspective from which it leads to the discovery of new possibilities, unknown up until that point.

Unfortunately, the great majority of industrial ecologists, and not only, prove skeptical regarding the capacity of free market economy to deal with the permanently appearing problems and provocations, thus they invoke central planning. However, historical evidence proves that the two main market institutions, under the shape of prices and private property rights, have managed to reveal sufficient incentives for a considerable promotion of resource recovery. It is thus not central planning yet central common sense and central market institutions that can do the trick. For Austrian economists the Big Brother idea is crazy as it is not possible for a group of politicians and bureaucrats to meddle inside society's natural way of functioning without doing a great deal of harm. According to them, competition is the key concept because it is considered to be one of the leading voices of a free market environment. The competitive spirit implies an improvement in the capitalist's ecological behavior through the diminished production of residuals and the incentive for resource recovery, two very important aspects that are not to be found inside statist arrangements. The market process proves a more compelling alternative after all and, as Hayek used to say (Hayek, 2009), it represents the best way not only because it manages to regroup and compress precious information and knowledge through the price system but it also facilitates new discoveries.

A market economy is unconceivable without private property. However, about private property one cannot talk without involving the most common human activity that portrays a particular economic significance; and that is trading. This activity is addicted to economic calculation which is possible through the price system. Thus, a market economy is impossible without the price system. Any new capitalist discovery is revealed through it as well as through the profit indicator. Competitiveness manifests a certain pressure upon the market players in order for them to arrange their plans and future actions towards the innovative item. The dynamical modifications of entrepreneurial behavior and the permanently usage of new information represent the main factors of constant improvement through change. Nevertheless, a crucial role is played by prices because they show whether a resource is endangered or not. A high price level shows this aspect, so that entrepreneurs will turn towards their substitution with other complementary possibilities through a good combination and orientation proposed by the entrepreneur. As Boaz (1997, p.150) rightly believes: *"Each price contains within it information about consumer demands and costs of production, ranging from the amount of labor needed to produce the item to the cost of labor to the bad weather on the other side of the world that is raising the price of the raw materials needed to produce the good"*.

The entire price mechanism can be viewed as a master plan because it rightly provides information as in how to obtain the highest level of output with the use of the lowest monetary and resource combination of input. Only through competitiveness, namely the profit and loss test, can the capitalist learn exactly how outputs can be obtained at the lowest combination possible. Profit states an efficient usage of resources while losses reveal an erroneous combination. Therefore, it is the singular possibility for assessing the opportunity costs belonging to production resolution.

The problematic is, as mentioned above, highly related to economic calculation. In this regard, a central authority, that is assumed to be rather infatuated, cannot portray the right knowledge of the economic distribution and will only be able to mark the way towards a misallocation of limited resources. Normally, prices represent the saving signal of endangered resources or whose availability reached a lower level compared to others. Government intervention tends to irremediably distort these signals by creating distortions in the money pricing system.

Hence, in an environment where property rights are properly used, thus in true capitalism, this essential pricing process represents the key element that provides powerful feedback regarding a possible resource exhaustion. When a particular resource becomes scarcer, it is the price, along with the profit and loss mechanism that reacts and tries to conserve it by sending alarm signals portraying the need to develop more efficient technologies and substitutes.

We admit the imperfections of free market but yet we consider it to be a much better solution than massive interventionist measures. First of all because it provides wider and provocative possibilities for solving problems, through the concurrence they are subjected to, something that cannot be achieved inside central planning. Secondly, private owners are able to develop a particular care for the resources they use and how they use them compared to the public owners because the former category directly benefits from their actions and are rewarded or not, judging by the situation of profits and losses.

5. Concluding remarks

Nowadays we are dealing with a capital eating economy but, unfortunately, we cannot describe it as a healthy meal but a rather intoxicated one. People seem to ignore the limited resources issue, thus, it had become a very serious problem that needs to be dealt with as soon as possible. Through this article we sought, once again, to fire a warning alarm regarding the irresponsible and harmful use of a limited amount of resources.

We chose to highlight the Austrian approach regarding this issue because, as Maybury managed to overtake: *“The Austrian economists point out that the economy is not a machine, it is an ecology composed of living organisms, people. The Austrian school is in the forefront of the effort to expose the madness of the government's Keynesian and socialist policies”* (Maybury, 2011). To this particular point of view we consider necessary adding the main idea that we tried to highlight along the entire argumentative process built within this paper, namely the fact that capitalist economy goes hand in hand with a certain part of ecology, precisely the efficient resource allocation, forming a rather complex branch that can, nowadays, be known under the appellative of economicology⁵.

The Austrian conception regarding investment has a double root. While the first category matches the healthy investment which are based on a solid foundation, the second bears the burden of misallocation of resources, being shackled by unhealthy bases. The latter approach, the one that raises numerous questions and provokes disputes, describes an erroneous type of action that consumed itself in the wrong place at a wrong time. It requires correction through an adequate treatment which is manifested through recessions or depressions.

Investment, as shown above, depict the key answer behind the signals transmitted by the price system, a response that can be found inside a sane economic environment and that results from the encounter of supply with demand. It is, therefore, raised the problematic of optimization and maximization. Therefore, emulation gives birth to a series of combinations of resources that may prove ingenious, both in terms of technology but especially in terms of creative and productive use of resources. Hence, if a statist intervention makes its presence felt, it brings major changes in economic structure, more specifically, inside the components that are addressed in the Austrian Business Cycle Theory: interest rate, money supply or production structure. The repercussions are felt through the prevailing malinvestment, taking the place of sound investment. Because it combines a multitude of elements that require a high degree of comprehensibility regarding the functioning of the economic apparatus, true economy, also known, more recently, under the name of human ecology, falls into a more complex category compared with ecology, as an independent science. Hence, how could one mind behind the central plan incorporate this entire amount of essential information? Austrian economists strongly believe that the fundamental reason behind inflations, misallocation, bubbles, recessions, depressions, panics, and other such economic calamities is that statist are constantly involving inside the mechanism of human ecology: *“The claim that the government possesses superior knowledge raises a more complex problem...There will always exist...an even greater store of knowledge of special circumstances that ought to be taken into account in decisions about specific resources which only the individual owners will possess and which can never be concentrated within a single authority. Thus, if it is true that the government is likely to know some facts known to few others, it is equally true that the government will be necessarily ignorant of an even greater number of relevant facts known to some others”* (Hayek, 1960, p. 494).

Our general conclusion can be compressed in one suggestive phrase: in an appropriate institutional setting, market processes are able to provide incentives for behaving in an ecologically responsible way.

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⁵ The term "Economicology" was introduced by Peter M. Wege and it is a combination between economics and ecology as a basic requirement for achieving sustainability. He identifies the six E's of our future: Economics, Environment, Ecology, Ethics, Empathy and Education. We focused on two of them, namely economics and ecology, but with significant and noticeable influences from the other four.

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