PROPERTY RIGHTS, EXTERNALITIES AND SUSTAINABLE DEVELOPMENT. A CASE STUDY ON CENTRAL AND EASTERN EUROPEAN MEMBER STATES

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Abstract: *The present paper is aimed to put emphasis on the fact that the role and importance of healthy institutional order in achieving sustainable development is essential. The whole environment theoretical movement follows the same development trend and theoretical and doctrinary evolution. Nevertheless, the market as a real, tangible product of the standard economic judgement system bears imperfections, i.e. income distribution, transaction costs or negative externalities. We therefore aim to bring strong arguments to demonstrate that, irrespective of the ideological level we take into account, we can not refer to market in the absence of private property. Other formal and informal institutions must participate in the whole process in order to enable it to function within optimum parameters.*
The whole CEE countries' analysis illustrates that protecting and respecting property rights is of paramount importance in maintaining a high level of development.
Keywords*: sustainable development, property rights, externalities*

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1. INTRODUCTION

Sustainable development has seen various approaches in time, from „the analysis of the necessary conditions to ensure a long-term optimum consumption which took both technological progress and population growth rate into account"(Pierantoni, 2004, pp.63-91) to the analysis of the compatibility between economic and environmental development so as to ensure that the priority placed on the present generations' needs does not imply the sacrifice of the future ones. "While in the 1970s, in the debate created

by Meadows *et al* (1972), which focused on the limits of the non-renewable natural resources and on the impact of economic growth on the environment, the quality of the environment was seen as divergent from economic growth, starting in the 1980s, the debate was focused on reconciling the two dimensions. Lately, both economic and ecological literature has focused on such issues as: a) *to what extent* and *how* should natural resources be exploited? b) the impact of human activities on the environment (pollution, waste, etc.); c) the sustainable development concept on the long term which is focused on achieving inter-generational equity by integrating economic development, social and environmental welfare"(Ciupagea, 2006:8). The sustainable development theory was based on the explanations related to the optimal growth means in the context of limited resources. The elimination of disparities in terms of access to resources and enabling every nation to develop according to its own values without sacrificing the next generations' welfare may be achieved within a stable and sustainable institutional system which clarifies the limits of individual action in society, a setting in which property rights form the basis of the framework within which people act and interact.

The present paper does not aim to identify those institutions which may influence the development level; on the contrary, we aim to bring arguments in favour of the fact that property-right-based economic systems are, at present, the best option if humanity wishes to leave something behind for the next generations.

2. THE IMPORTANCE OF PRIVATE PROPERTY FOR SUSTAINABLE DEVELOPMENT

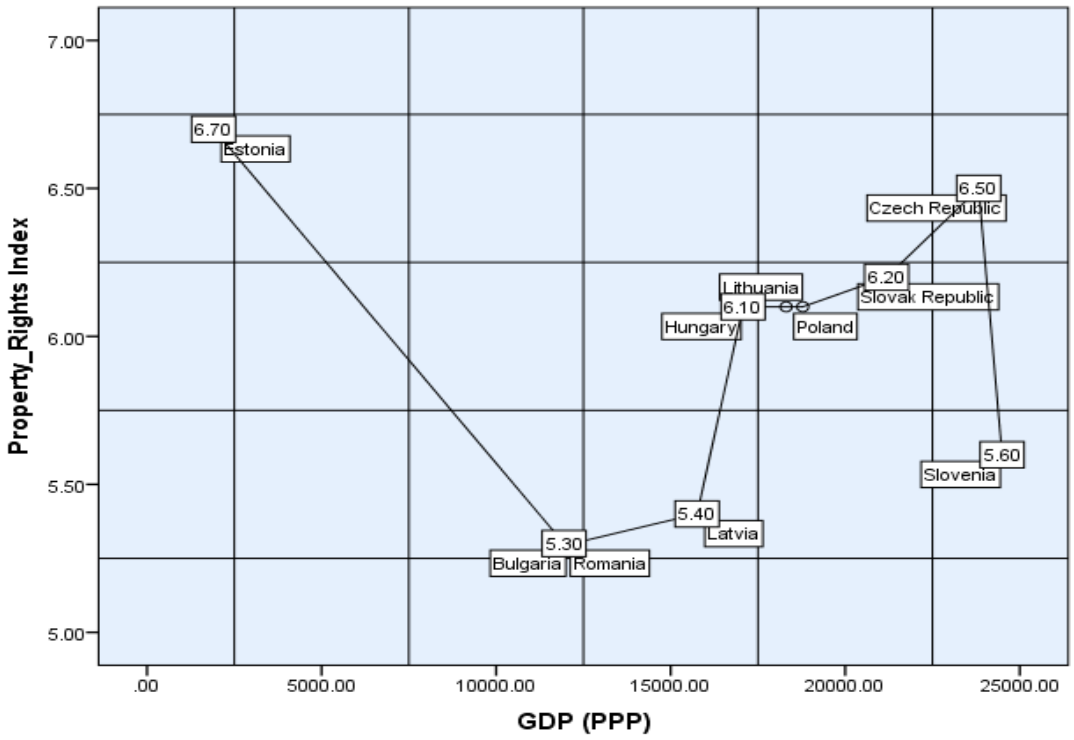
An important question is: why should property rights over things actually exist? A series of arguments have already been mentioned particularly by early writers who stated that property rights maintained work stimulation and durable things. "Property rights are an instrument of society and derive their significance from the fact that they help a man form those expectations which he can reasonably hold in his dealings with others. These expectations find expression in the laws, customs, and mores of a society. An owner of property rights possesses the consent of fellowmen to allow him to act in particular ways. An owner expects the community to prevent others from interfering with his actions, provided that these actions are not prohibited in the specifications of his rights" (Demsetz, 1967). In the absence of a property right assignment, the conservation economic function would not exist. The resources to which every individual has free access are to be overexploited and alienated. This is particularly what the American ecologist, Garret Hardin, names *the tragedy of commons*.

Property rights are seen as made up of possession rights – right to use – and the right to transfer possession rights. Consequently, what we normally perceive as property (land, for example) encapsulates both a series of property rights (the right to build, to cultivate, etc.) and the associated transfer rights. For example, the owner of a lot may not hold complete possession rights, i.e., other people can hold the right to have access to it, to cut trees, or to dig for oil on it (consequently, a conditioned right). This property rights

division may be assessed when various parties consequently obtain different benefits/ losses.

"Private property draws and reflects man's boundaries in terms of freedom of action within society. Property is a praxeological category; it is related to human action, to the deliberately created goods to serve man's needs. The property right is the source of a whole system of rules and principles indispensable for setting out the ethics and legitimacy of human action in society; this right is the only means that can provide the fair verdict regarding social order and the institutional framework suitable for economic prosperity"(Marinescu, 2012:39). Cooperation between individuals is possible only if natural laws are encapsulated and systematized according to the general, universal principles which inexorably govern man's life in a limited-resource universe. This human action absolute conformity to the legitimate framework derives from the obvious necessity to reach a non-conflictual social order in which possession and life interest rules are already established, which enables the resolution of potential conflicts by *the supremacy of law*." A well-defined and implemented property right *"entitles the owner to claim all the advantages that the use of a good could generate on the one hand and burdens him with all the disadvanges resulted from its use, on the other"* (Von Mises apud Doti *et al*, 1991: 85). A system in which property rights are well defined and secure enables individuals to efficiently allocate resources and provides the necessary motivation to efficiently manage the source of means likely to be capitalized at a certain moment.

Figure 1 Property rights values and level of development in ECE member states, 2015



(Source: Author's calculations)

The above figure illustrates the values registered by ECE member states in 2015. The diagram outlines the fact that protecting and respecting property rights has proved of paramount importance in maintaining a high level of development. Figure 1 suggests that the countries in which the Private Property Index values are higher and the presence of the state is less noticeable; have registered a higher rate of development. While in countries such as Czech Republic and Slovenia, the Private Property Index reaches the highest levels; in Romania and Bulgaria it registers the lowest levels among the analyzed countries.

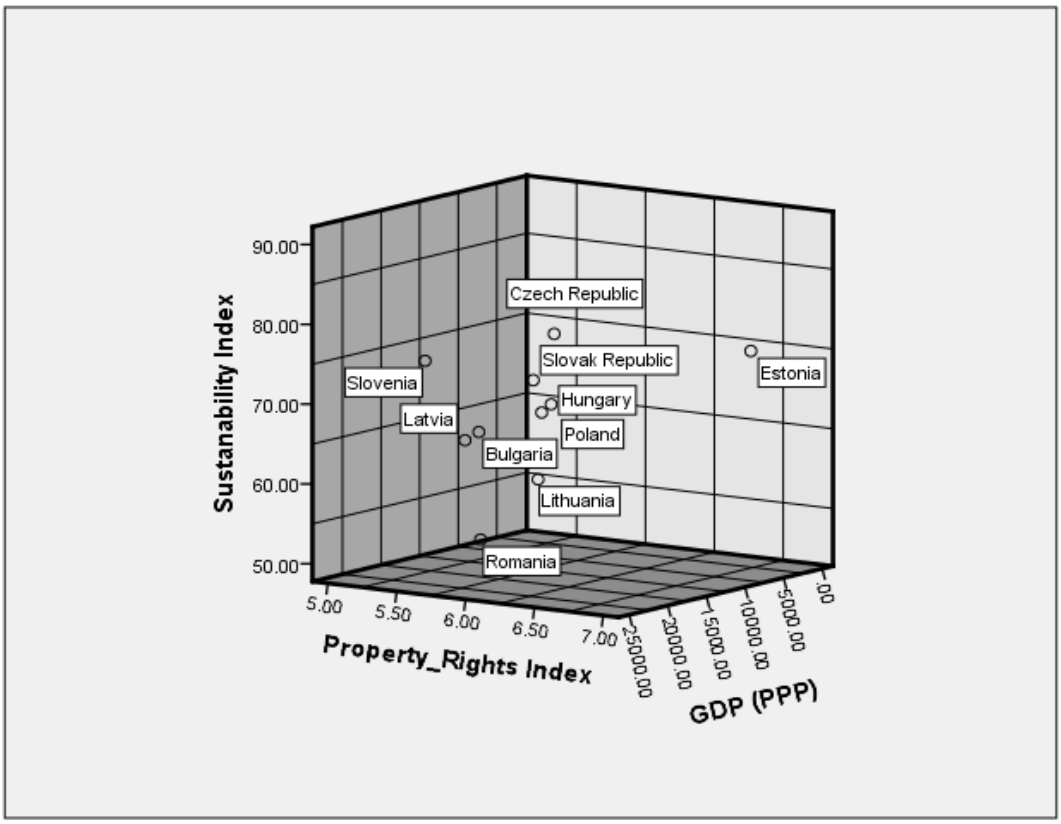
Private property importance is also essential in the area of environmental economy. Some arguments refer to the fact that:

First of all, private property implies the widest range of knowledge necessary to solve the problem of scarce resource. The most efficient allocation of resources and individual plans' coordination is achieved through the market. Under these circumstances, "the owners possess both the information they need to efficiently allocate resources and the necessary motivation to improve resource management"(Soto, 2011:158). Consumers, "who must pay for the natural resources, take advantage from the information in their price and can thus efficiently allocate their income in accordance to the value scale they consider most adequate and which is expressed in every choice" (Soto, 2011:158).

The improvement in knowledge and innovation provides a vital impulse to economic progress. Actually, the major difference between the modern man and the first hunters is the amount of knowledge we possess in relation to the way resources can be turned into desired goods. Our ancestors virtually possessed the resources existing nowadays. However, the superior knowledge we possess today enables us to obtain a considerably greater number of outputs (per capita) from existing resources. No elite or individual group holds complete knowledge. Brilliant ideas most often arise from unexpected sources. By reflecting various combinations of creative talent, ideas and market perceptions, private property and economic freedom allow a great variety of individuals to bring forth new information contributing to production processes (Gwartney, 1985:43).

Secondly, private property does not discourage the preservation of resources for future generations. Since the present market value of the property reflects future incomes, private property encourages preservation. Anytime the value of the future use of the resource is higher than at present that particular resource will be preserved for future use. For example, let us consider that an individual supposes that the price of a barrel of oil (or any other resource) will increase by 10% annually (Gwartney, 1985:43-44). When the expected price increase is higher than the interest rate, resource owners (or potential buyers who believe that the price of that resource will increase faster than the interest rate) will earn more from preserving that resource.

Figure 2. Property Rights, sustainability index and development in ECE member countries



(Source: Author's calculations)

The analysis (see Figure 2) shows that, in general, a higher income level is correlated with a higher rate of environmental sustainability. Countries like Slovenia and Czech Republic, where both the income and the *Environment Performance* Indices register the highest levels, support this idea. The 64.05 and 50.52 scores place countries such as Bulgaria and Romania on the lowest positions in ranking. This is particularly due to the weak, absent or vicious institutions. While in developed countries, the issue of decontamination, life quality improvement and resource optimization resides in transforming, adapting and modernizing, in less developed ones, recovery is essential.

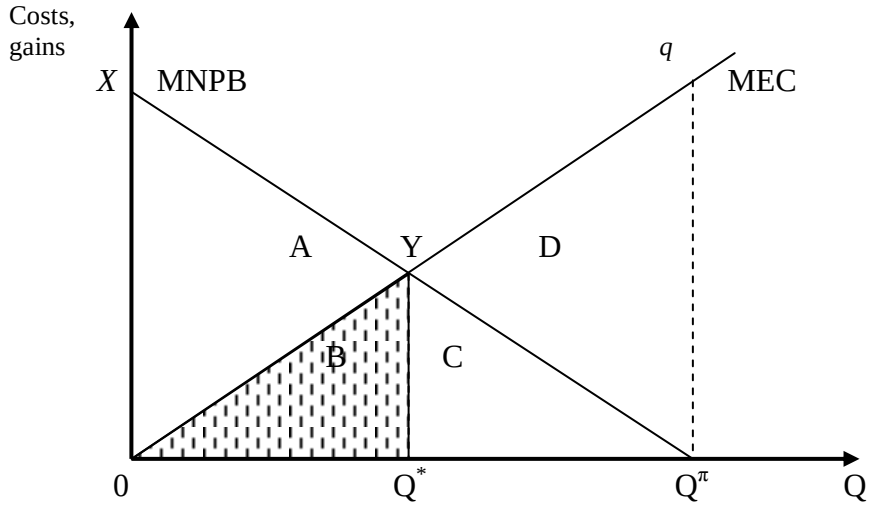
3. THE ISSUE OF EXTERNALITIES IN THE FIELD OF ENVIRONMENTAL ECONOMY

By *externality*, we understand a consequence of an action which affects a person who did not approve it by participating in a voluntary exchange. The role of property rights is *"to guide motivation towards a better internalization of external costs*

(externalities)" (Demsetz, 1967:348). "A prominent feature of the interface is the presence of externalities, which are the unaccounted for consequences for others – including future people – of decisions made by each one of us. Those consequences could be damaging to others, but as they are unaccounted for, people responsible for them aren't obliged to compensate the victims. To be sure, any one person has only a very tiny effect on the global state of affairs, but when the effects that each of us has on others are added, the sum can be substantial. The socio-environmental system is not self-correcting, implying that the "invisible hand" does not work. Eliminating externalities requires collective action, variously at local, regional, national and international scales"(Dasgupta, 2014:2). Any cost or benefit associated to social interdependence thus represents a potential externality. If the rights' transaction costs between two economic agents exceed earnings deriving from their internalizing process, an externality (either positive or negative) occurs. Air or water pollution resulted from a company's productive activity, for example, represents a negative externality; a positive externality example would be the maintenance of a loan by its owners who thus produce additional benefits for the people passing by. In this line of thought, we may conclude that „*if transaction costs following the exchange of rights between two agents exceed the gain derived from their internalization then an externality (positive or negative) appears. Thus property rights develop in order to internalize the externalities when the gains obtained through internalization exceed the costs".* (Chiriac *et al,* 2012, p.445)

In order to exemplify the situation of the internalized damage on the environment as a consequence of the polluting effect, we resort to Pearce's and Turner's works (Pearce *et al,* 1990:63).

Figure 3. The Economic Definition of the Optimum Pollution Level



(Source: Pearce D. *et al,* 1990: 63)

Figure 3 illustrates the relation between the polluter's level of activity and associated costs and benefits, respectively. The activity level of polluter Q is illustrated on the horizontal axis. The costs and benefits, expressed in monetary values, are

illustrated vertically. MNPB and MEC show the net marginal benefits, the external marginal cost, respectively, which represents the value of the additional prejudice occurring as a consequence of the pollution caused by the Q level of production. The latter increases proportionally with the output. The above-mentioned author considers that both MNPB and MEC represent marginal units; consequently, the MNPB - $x0Q^{\pi}$ area represents the total net benefits. In the same line of thought, the area drawn by MEC, represented by the $qQ^{\pi}0$ surface, illustrates the total external cost. Pearce's whole analysis relies on the assumption that both the polluter and polluted must give something up in favour of the other so as to ensure satisfaction on both sides. This means to internalize the environmental damage as a consequence of the polluting effect expressed by external marginal costs leads to the identification of four areas: A, B,C, D. Therefore: area A – represents the optimum level of the social benefit after having internalized a part of the damages on the environment; areas A and B illustrate the optimum level of the benefit provided the solution represented by the optimum level of pollution is accepted; area B – the optimum level of pollution (if pollution is reduced below this level, costs will exceed general advantages); area C – represents the private benefit annulled by internalizing environment damages; areas C+D – the non-optimum pollution level.

If we limit economic activity to Q^{*}, we notice that the X0Y triangle area is the widest „*which means that the maximum level of physical pollution corresponding to the new maximum output level represents the optimum level of pollution*" (Pearce *et al*, 1990:63). The optimum pollution level resulted from the economic activity corresponds to the 0Y Q^{*} surface. This area bears the name of *externality optimum level*.

The whole analytical work of the two authors is genuinely based on the neoclassical tradition. However, a more careful analysis weakens the explanatory force of the whole theory. Some arguments suggest that: the stress falls exclusively on balance, which implies that the information regarding the participants' functions and restrictions *is given*; the analysis context is stationary and consequently, theoretical conclusions can not be accepted as bearing a universal theoretical value; both the dimension and complexity of such phenomena show that although "environment management requires the economic support able to provide an efficient solution for scarce resources allocation and use, the neoclassical corpus faces various limitations regarding their illustration in monetary terms. Thus, the price system reveals the difficulty in measuring the qualitative aspects of welfare and the market mechanism cannot actually grasp the preferences for public goods – components of the natural system" (Pearce *et al*, 1990:63); the logic of this analysis assumes that property rights are well defined from the very beginning and therefore, the externality issue is no longer justified in this context. This *apriori* assumption is contradictory because externalities are but the result of the insufficient definition of property rights.

For problems like efficient management of natural resources, pollution reduction and environmental protection to actually have a solution, we resort to the works of authors such as Coase, North, Demsetz, etc. who found that *it*, i.e. the *institution of the market,* is the most efficient „weapon". Thus, for example, the owner of a gold mine in a market economy where all the other natural resources are private property, receives from this institution all the information regarding the alternative use of this ore. By having

access to this information, he will allocate his resource the highest comparable values provided by the market. „*Whether this efficient allocation of resources is historically valid or not remains irrelevant because we should be grateful that such a constant force or tendency towards optimum allocation exists on the market"* (De Soto, 2011:159). We therefore understand that the private management of natural resources through this institution brings about a series of disadvantages in terms of: individual freedom, adaptability to market demands, diversity in terms of participants, balance of results and the highly valuable information provided by the participation in this no-zero-sum game.
The fundamentals of this reasoning prove valid only if property rights are well defined and easy to convey. It is only under such circumstances that the individual is drawn towards preservation by his own selfish interests: the allocation of a higher market value to the resource in his possession.

4. CONCLUSIONS

The sustainable development philosophy is based on three main pillars: economic, social and ecologic. The optimal functioning of this system fundamentally relies on the efficiency of the institutional setting, which may be synthesized as follows: a) sustainable development makes sense and may be applied only within a society endowed with powerful institutions capable to support themselves; b) the main role of the state should be to set the rules of the game, the market being the only one capable to internalize transaction costs; c) well-defined and easy to convey property rights support the development process under sustainable circumstances. The most efficient allocation of resources and correlation of individual plans is achieved through the market. In this context, owners possess both the information they need to allocate resources efficiently and the necessary motivation to improve their management.

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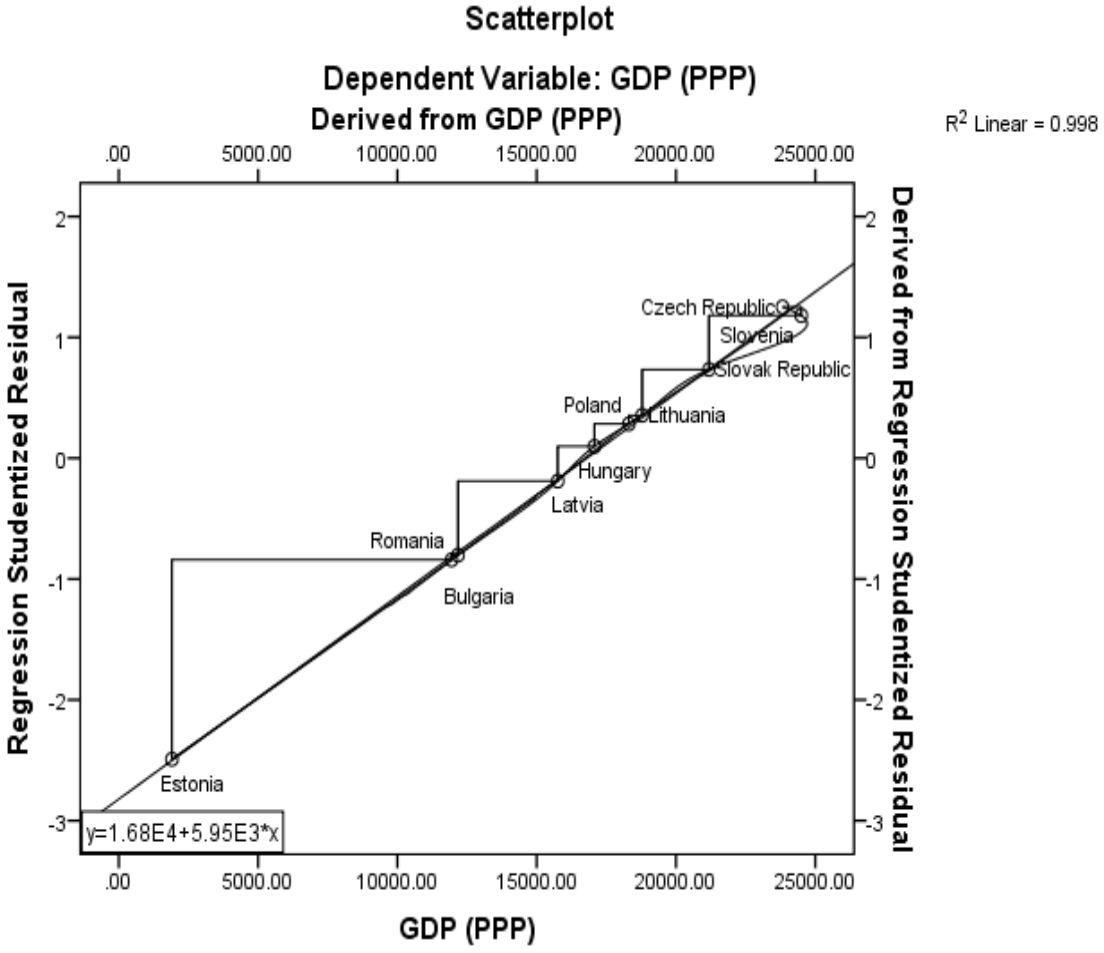
ANNEX 1.



(**Source: Author's calculation)**