KNOWLEDGE AND INFORMATION ECONOMY, WELFARE AND GOVERNANCE: THE ECONOMIC NATURE OF INTELLECTUAL PROPERTY RIGHTS

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This paper intends to study the analytical relationship between the Intellectual Property Rights (IPR) economic nature and the concrete governance modalities used to manage these IPR. This problematic may be extended to the economic analyze of Property Rights (PR) in general, and is related to various social fields: the environmental components, the cultural goods and services, the knowledge production and the digital economy, for example.

In a first part, from stylized facts, I will show how the market private logic translates high transaction costs, i.e. transaction costs generally higher than the ones produced by other governance mechanisms. In regard to hold-up strategies and collective welfare, I will underline the intrinsic market failures related with a private logic. Then, I will examine the implications in terms of market structures, firms strategies and PR economic nature. I will show why, in regard to the modifications of the goods and services economic nature, new forms of collective PR appear.

Then, from the opposition between Pigou and Coase, I will study the different conceptions of the PR economic nature, and of the market regulations recommended. I will analyze this opposition in regard to the following points: the externalities economic nature, the nature of the contracts and the criterion used to evaluate the social welfare. *I will show why Coase maintains the main neoclassical hypotheses*, i.e. the absence of uncertainty and the microeconomic substantive rationality.

In a second part, I will point out, in regard to the goods and services *complexity*, the private negotiation limits, i.e. the coasian approach limits. This complexity may be defined (i) by the uncertainty, (ii) by the fact that more part of theses goods and services are experience goods, and (iii) by the existence of opportunist behaviors. The first characteristic means that the microeconomic rationality is bounded and that agents´ decisions are irreversible. The second one, that the price system is a "noisy" signal and that it is impossible to anticipate the goods and services utility. From the third characteristic, we can deduce that the contracts are incomplete, by nature.

In this perspective, I will use amply Williamson´s theoretical instrumental to demonstrate that the market logic translates a high level transaction costs. The concept of complexity may be complemented by the concept of specificities, in the way it is defined by Williamson; the more complex and specific are the goods and the assets, the higher are the transaction costs related to a market logic . The implications are the following ones: first, the private logic and/or the market aren´t, systematically, the most efficient social instance, in the way that these private logics don´t minimize the transaction cost. Secondly, the transaction costs are a way to minimize the uncertainty. Third, other governance modalities (institutional, public or hybrid ones) may be more efficient than the private ones.

Then, I will formalize some of the main economic mechanisms: I will show the principal differences between the paretien maximization criterion used by the pigouvian approach and the Kaldor-Hicks criterion which corresponds to the coasian analysis. Then, I will demonstrate why, in regard to the economic specificities, it is impossible to maximize microeconomic production and consumption function. Finally, I will analyze the hold-up mechanism: I will demonstrate why, in situations in which the PR are fragmented between various firms, the price of the technology is higher than it would be if only one agent had the totality of PR.

Finally, I will demonstrate why, when opportunist behaviors appear, a pigouvian tax is necessary to turn the private negotiation efficient in a social way: in other words, the market efficiency cannot be implemented without an institutional intervention.

In conclusion, it is possible to affirm the necessity of an institutional component, to regulate the market activities, and to specify what is the most efficient governance modality to be adopted. From an institutional perspective, and more specifically from the "old institutional" approach, this means that the market, i.e the IPR private negotiation modalities, can´t be conceived as an optimal mechanism and as an auto-regulatory instance; *institutional components are necessary for the market work "normally".*

Key words: transaction costs- Intellectual Property Rights- Governance-Welfare

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