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Public Markets, Private Orderings
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Abstract.

In the New Property Rights approach the degree of incompleteness of markets is taken independently of the cost of the public ordering and of their efficiency relatively to private orderings. In this approach “public markets”, similarly to a Swiss cheese, are either assumed to be non-existent empty holes (because of infinite third party verification costs) or assumed to be smooth and efficient (because of zero third party verification costs). When we allow for positive but not infinite third party verification costs we are necessarily pushed back to the insights of Commons, Coase, Fuller and Williamson. The degree of (in)completeness of public markets becomes an endogenous economic problem and managers can be seen as agents that make “second order” specific investments to run specific relations that cannot be efficiently run by public markets. Managers and the public authorities build respectively private and public “legal equilibria” that set the working rules within which transactions can take place. Private and public legal equilibria are not only substitutes but also complements. This complementarity is an important source of the path dependency that characterises the development of different legal systems. The framework is applied to GM’s acquisition of Fisher Body. We claim that, contrary to the claims of the New property Rights approach, the advantages of the acquisition cannot be due to the incentives of private property but should be rather related to the replacement of public markets by the new private ordering set up by Alfred Sloan.

JEL classification: K00, K10, L22, P51, D23

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1. Introduction.

In a famous passage, quoted by Coase in his 1937 article on Nature of the Firm (p. 35), Denis Robertson (1928) observed how in the market economy we find "islands of conscious power in this ocean of unconscious cooperation like lumps of butter coagulating in a pail of buttermilk". The main question asked by Coase - "Why are there these islands of conscious power?" was obviously influenced by this parallel with the world of dairy products.

In spite of its self-declared Coasian spirit, after many years, the New Property Rights approach has managed to describe the problem in a way that obscures the comparative institutional approach introduced by Coase. The memory of the butter and the buttermilk has faded away together with the question asked by Coase. Its place has been taken by some sort of Swiss cheese where holes of incomplete contracts are open in a desert of perfectly working and costless markets.

The starting point of this paper is the Coasian comparative analysis of markets and firms. In this perspective the incompleteness of market contracts cannot be exogenously taken as the holes of a Swiss cheese. It is related to the degree of development of the legal and judiciary system that absorbs relevant scarce resources whose allocation has been traditionally the most important economic problem. Moreover, the public ordering is not the only way by which the goal to subject human activity to the governance of rules is carried out. Private orderings, including firms, should be considered as complements and/or substitutes to the legal and judiciary system which help the smooth working of public markets. In this respect the Coasian contribution can be usefully integrated with the work of Lon Fuller who saw the firm as one of the ways by which the public ordering was decentralised in the actual working of modern economies. This is done in the following section of this paper.

The third section of the paper shows how the Fuller-Coase analysis can be integrated by referring to Commons' elaboration of the fundamental juristic relations considered by Hohfeld. The standard transactions, considered by economic theory, assume implicitly a "legal equilibrium" where the rights, duties, the liberties and the exposures of each agent are compatible with those of the other agents. Commons contribution can be used to show that this "legal equilibrium" cannot be taken for granted and that the standard transactions considered by orthodox economic theory require authoritative transactions with public officials that contribute to the "convergence" to a legal equilibrium. More, in general, legal and economic equilibrium analysis should not be separated and "private orderings" are essential to the working of this equilibrating process. Private property itself can be interpreted as an elementary

private ordering whose real advantages can only be seen in a world of costly public markets.

The fourth section contrasts the New Property Rights emphasis on the efficient allocation of the private property of the means of production with the role of more complex private orderings. It is argued that the "Swiss cheese assumption" typical of the New Property Right approach is tantamount to assuming that third party verification is either costless or infinitely costly. This assumption inhibits the development of any theory of the degree of completeness that should be achieved by the public ordering by the means of public investments. Moreover, it does not allow the understanding of the investments, carried out by private agents, that increase the capacity to device working rules for other agents and to verify their behavior. In other words, in the New Property Right approach, the firm cannot be explained as a private ordering where some agents make "second order" specific investments to manage some specific relations.

The acquisition of Fisher Body by GM has been considered by the New Property Right approach as a classic example to illustrate the incentive effects of ownership. In the fifth section we argue that the advantages of the acquisition cannot be attributed to the virtues of a better allocation of the private property of physical capital. By contrast, it can be related to the possibility of a successful integration of Fisher Body in the new form of private ordering that had been created by Alfred Sloan at GM. The "second order" specific investments of Sloan and other managers in the setting up and the running of the new private order can explain the advantages of the integration.

Finally, the concluding section argues that the relation of complementarities and substitution between private and public orderings imply that in each country the "efficiency" of a model of corporate governance cannot be seen independently of its history. One of the few general conclusions seems to be that more markets may mean more public investments in the public ordering of the economy.

2. Centralisation of market transactions and decentralisation of the public ordering.

In his famous 1937 article on the nature of the firm Coase explained the existence of the firm as an institution that allowed a "centralisation" of market transactions and savings of the market transaction costs that should have otherwise been sustained by alternative organisations. Coase's 1960 article on the nature of the social cost has become famous for the so-called "Coase theorem" on externalities for a world of zero transaction costs - a theorem that, according to Coase himself, Coase never

stated at least in an explicit way¹. However, the most valuable part of the article is perhaps that where he re-states the consequences of the assumption of positive transaction costs - an aspect of the Coasian contribution that, as Williamson has pointed out, has been surprisingly missed by many economists².

While in a world of zero transaction costs, markets can deal with all sorts of economic interactions (including the "externalities" of the Pigouvian tradition), in a world of positive transaction costs (where all forms of economic organisations are costly) an institutional mix is likely to characterise real life economies.

In the second part of the 1960 article the firm reappears as possible substitute for the use of the market . "It is clear that an alternative form of economic organization which could achieve the same result at less cost that would be incurred by using the market would enable the value of production to be raised. As I explained many years ago the firm represents such an alternative to organising market transactions" (1960, p. 115). Coase emphasises how "unified" private property of a factor of production allows the rearrangement of production to take place without bargains among the owners of the factors of production. He considers how a "landowner who has control of a large tract of land may devote his land to various uses, taking into account the effect that the interrelations of the various activities will have on the net return of land, thus rendering unnecessary bargains between those undertaking the various activities" (Coase 1960 p. 116). Thus, the firm is an organisation, alternative to both the market and the state, that allows the "internalisation" of (former) externalities. In a world of positive transaction costs unified private property can save on the cost of using the market mechanism: "the firm would acquire the legal rights of all the parties, and the rearrangement of activities would not follow on rearrangement of rights by contract but as a result of an administrative decision as to how the rights should be used" (Coase 1960 p. 116).

In his 1937 article Coase points out that the relevant comparison is that between the administrative costs of organising a transaction through a firm and the costs of market transactions. According to him the former are likely to be lower than the latter whenever the "contracts are peculiarly difficult to draw up and an attempt to describe what the parties have agreed to do or not to dowould necessitate a lengthy and

¹ The many versions of the "so-called Coase theorem" (Coase, 1988 p. 13 uses this expression outlining how the literature has derived implications from his writings that ignore the fundamental importance of positive transactions costs) assume either zero transaction costs or, in other words, a zero-transaction-cost institutional environment. One could assume that the "Coase theorem" involves also some "efficient" bargaining on the relevant institutions, but the efficiency of these institutions depends, in turn, on the fact that they are negotiated in a zero-transaction-cost institutional environment. This generates an infinite logical regress. If one wants to avoid the "Nirvana fallacy" of a zero-transaction-world one must specify the organizational costs of the initial institutional set-up; or, in other words, one must move towards some sort of history-dependent evolutionary economics. On a related issue see Anderlini and Felli (1998)

² See Williamson (1993 and 1994), Posner (1993) and Coase (1993). Calabresi (1991) also points out the comparative spirit of the Coasian contribution. Calabresi's work is one of the most interesting developments of the Coasian comparative approach. See, for instance, Calabresi and Melamed (1972).

highly involved document.... ". "But the firm -Coase observes - is not the only possible answer to this problem." According to Coase "an alternative solution is direct governmental regulation" (Coase 1960 p. 116). Unlike a firm, government intervention is not subject to competition. Moreover, unlike a firm, the government can conscript and size property and it has at its disposal the police and other law enforcement agencies. However, Coase maintains that the government "is, in a sense, a super-firm (but of a special kind) since it is able to influence the use of factors of productions by administrative decisions" (p. 116). In comparison to both firms and markets is some cases "the government has powers which might enable it to get things done at a lower cost that could a private organization...." However, even ignoring governmental mistakes "the governmental administrative machine is not itself costless" and it "can, in fact, on occasion be extremely costly".

Thus, the first part of his 1960 article (where the conditions of so called "Coase theorem" would be satisfied) is only instrumental to move towards a world where no organizational "free lunch" is possible and all types of transactions are costly. The problem is "one of choosing the appropriate social arrangement" in a world where "all solutions have costs". Moreover, given the nature of the problem, the existence of "externalities" does not involve that the costs of setting up a "social arrangement", that deals with them, will always outweigh its benefits. Thus, each one of the institutions like market contracts, firms, judiciary and the state covers only a part of individual interactions and, moreover, the overall mix of these "social arrangements" is necessarily incomplete.

Coase's journey starts from the criticism of the world of costless decentralised markets of standard economic theory and moves towards the understanding of the real life complex world characterised by diverse and incomplete institutional orderings. One may gain some further insight in Coase's journey by considering the work of Lon Fuller. Fuller's journey departs from the criticism of a world that may superficially appear located at the opposite pole: a world where a complete public ordering exists³. Fuller shows the shortcomings of the traditional view of law that takes for granted the existence of a complete public ordering. We will, however, see that his criticism of the assumption of a zero-cost public ordering can be somehow related to the Coasian criticism of the assumption of zero market transaction costs.

According to Fuller (1958) the generality and reciprocity of commands defines the minimum moral contents for a legal system to be distinguished from a simple system of arbitrary commands⁴. The basic object of law-making is to subject human

³ Other important authors, who have broken the identification between law and state legislation and have pointed out the importance of private orderings, are Hayek (1973) and Leoni (1980).

⁴ The initial "positive" approach of Bentham and Austin defined Law as the commands of the authorities. This notion is also criticised by modern positivists like H. Hart (1958) who observes that

conduct to the governance of rules. Law-making is a purposive activity which can fail in greater or small degree. Like any other purposive activity, law making requires attention to certain practical precepts that are related to the ultimate purpose of the activity. According to Fuller (1969. p. 39), if the object of law-making is to be achieved, one must try to follow eight of such precepts:

- (i) there must be rules
- (ii) they must be prospective non retrospective
- (iii) the rules must be published
- (iv) the rules must be intelligible
- (v) the rules must not be contradictory
- (vi) compliance with the rules must be possible
- (vii) the rules must not be constantly changing
- (viii) there must be congruence between the rules as declared and as applied by officials.

According to Fuller these eight principles represent eight ways in which the enterprise of law-making can go astray. They point to eight minimum conditions for the existence of anything that we would regard as law or a legal system. For example, a system where all the rules are kept secret, or where all the rules were retrospective, would not normally thought of as a legal system. Complete failure to comply with any one of the eight principles results in something that is not law at all. On the other hand, complete success is impossible to achieve for real-life human societies. When human societies aspire to subject human behavior to the governance of rules, "the principle of marginal utility plays an increasing role in our decisions". In this case "something like and economic calculation may become necessary when a conflict arises between the internal and the external morality of law" (Fuller 1969 p. 44). Costly resources have to be expended to achieve the objectives of law-making: given the limitations of our resources and capacities, the achievement of one objective implies the sacrifice of other objectives. According to Fuller there are "trade-off" not only between law and other objectives but also among the different objectives of law.

A conflict between the internal and external morality of law may easily arise. On the one hand the "internal morality of law" requires that the laws do not change too often otherwise its rules cannot satisfactorily guide human behavior (principle vii). On the other hand, "it is obvious that changes in circumstances, or changes in men's consciences, may demand changes in the substantive aims of law, and sometimes disturbingly frequent changes" (Fuller 1969 p. 44).

commands are laws only when they are general in the sense that they apply to all people who find themselves in the same circumstances.

However, "antinomies may arise within the internal morality of law itself" because "the various desiderata which go to make up that morality may at times come into opposition with one another". For instance, consistency (principle v) and intelligibility of law (principle iv) are both important objectives of a legal system. However an "economic" trade-off between these two goals may well arise and "it may become necessary to pursue a middle course which involves some impairment of both desiderata" (Fuller 1969 p. 45). In this respect Fuller refers to a conversation that he had with a former Minister of Justice of the Poland. She told Fuller how "in the early days of the communist regime an earnest and sustained effort was made to draft the laws so clearly that they would be intelligible to the worker and to the peasant". However an "economic" trade-off emerged. "This kind of clarity could be attained only at the cost of those systematic elements in a legal system that shape its rules into a coherent whole and render them capable of consistent application by the courts" (Fuller 1969 p. 45). This made unavoidable some retreat where both the "marginal utility" of consistency and clarity were taken into account.

If law-making is the enterprise to subject human conduct to the governance of rules this implies that "it may be carried with varying degree of success. This means that the existence of a legal system is a matter of degree." The limited human capabilities imply that perfection can never be reached and the most optimistic view could only hope that the system points towards increasingly high levels of achievement. Even when we make the best use of our limited resources and capabilities, the enterprise of law and the legal ordering itself will inevitably be imperfect and incomplete. However, even when we take this optimistic view, the idea itself that the existence of a legal system is a matter of degree is not acceptable for orthodox legal doctrines. "Any such view contradict the most elementary assumptions of legal thinking. Neither a rule of law nor a legal system can 'half exist'." (Fuller 1969 p. 122)

"It is truly astounding to what an extent there runs through legal thinking the assumption that the law is a piece of inert material - it is there or not there. (Fuller 1969 p.123). Contrary to the traditional view, both the rules of law and legal system are the results of human activities whose partial success can only be achieved by sacrificing other "internal" and "external" objectives.

While in the Coasian view a system of markets cannot be taken for granted because costly resources are involved in the use of the market mechanism, according to Fuller a system of complete rules of law cannot be taken for granted for similar reasons⁵. Moreover, in the Coasian view, the cost of using the market mechanism

⁵ The incompleteness of the system of rules is also underlined by Dworkin (1977). Because of the incompleteness of legal rules judges may refer to some basic principles. Even if these principles have not been formalised in rules these principles belong to the legal order. Rules apply in an "all nothing fashion". Valid rules cannot conflict. Principles conflict and must be weighted against each other. Because of their possible conflicts, principles have a dimension of weight that the rules do not have. For

implies that institutions other than markets are used to coordinate human activities. In a parallel way, Fuller points out that more than one legal system may coexist: EEC, national states regional and provincial governments are well known examples of this circumstance. Furthermore the numerous "public orderings" are necessarily complemented by even more numerous "private orderings".

"If law is considered as "the enterprise of subjecting human conduct to the governance of rules" then the this enterprise is not conduct in two fronts or three fronts but thousands. Engaged in this enterprise are those who draft and administer rules governing the internal affairs of clubs, churches, schools, labor unions, trade associations, agricultural fairs, and a hundred and one other forms of association" (Fuller 1969 p. 124-5).

Fuller emphasises how his conception of law implies that there are in his own country alone thousands "systems of law" and he argues that how these systems cannot adequately analysed as artificial nexus of contracts. In order to make his point, he analyses a hypothetical instance of such a "legal system in miniature". He considers the case of a college that enacts and administers a set of parietal rules governing the conduct of students in his dormitories. If a student is claimed to have violated the rules and is expelled by the school, he may file suit and ask the court to order her reinstatement. The court will usually decide by analysing the legitimacy of the rules of the school in terms of the eight principles that we have considered (i. e. the Court were consider questions like: Were the rules of the school clear? Were they consistent? Were they properly publicised) and, then, it will analyse whether they were properly applied in the case of the student. In other words, "once we accept the parietal rules as establishing the law of the case, binding both the college authorities and the courts, the situation is not essentially different from that in which an appellate court reviews the decision of a trial judge" (Fuller 1969 p. 126).

However, the symmetry between Coase and Fuller becomes even clearer when we consider the role that the firm plays in both approaches.

In a way similar to the State - the mythical King Rex considered by Fuller - also the employer may find it convenient to have a "legal system in miniature". However when he tries to do so, like King Rex, he runs the same risks of failing to satisfy the eight principles that characterise a legal system.

instance, in Riggs vs. Palmer case, where a murderer was benefiting from the inheritance left from his victim, two principles were conflicting: (1) the enactment of democratic legislature should be enforced according to their clear wording (2) no man shall profit from its own wrong. The judge decided that, in this case, principle (2) should override principle (1). If law consist only of rules (positivist conception) either Riggs vs. Palmer was wrongly decided or the judge is not bound by the rules.

"If the employer wants to avoid the necessity of standing over the employee and directing his every action, he may find it essential to articulate and convey to the employee certain principles of conduct. In this venture there are open to the employer all the routes to failure traversed by King Rex. He may not succeed in articulating general rules; if he does, he may not succeed in conveying them to the employee etc. . If the employer succeeds in bringing into existence a functioning system of rules, he will discover that this success has been bought at a certain cost to himself. He must not only invest some effort and intelligence in the enterprise, but its very success limits its own freedom of action. If in distributing praise and censure, he habitually disregards his own rule, he may find his system of law disintegrating and without any open revolt, it may cease to produce for him what he thought to obtain from it." (Fuller 1969 p. 47-8)

In other words, in order to reap some benefits from a private ordering, the employer has not only to sustain the related "set up" costs but must also incur the "rigidity costs" of submitting herself to the rules that she has created. The effort may, however, be worthwhile because the "public ordering" may be unable to provide the specific rules that may adequately regulate the principles of conduct that are appropriate to run that particular business.

Thus, Coase and Fuller come to the common conclusion that the internal structure of the firm may be rather important for the success of business activities. Their starting points seem to be rather different. Coase founds his argument on costs that should have been otherwise incurred to run market transactions among separate economic agents. If the costs of running the corresponding market transactions were zero, there would be no explanation for the existence of a costly institution like the firm. By contrast, the ideal starting point of Fuller analysis is the cost of having a complete and perfect public ordering. If the costs of running a complete public ordering were nil, there would be no possible explanation for the "set-up" and "rigidity" costs that are spontaneously sustained by many employers that run that particular form of "private ordering" defining the firm.

In other words, in Coase and Fuller, the firm seems to emerge from two opposite processes. In Coase it seems to emerge as a "centralisation" of market transactions. In Fuller it seems to emerge as a "decentralisation" of the public ordering. However, in many respects, the two processes describe the two faces of the same coin because many of the costs of running market transactions coincide with the costs of running a "pure" public ordering. When firms, unions, arbitrators and other forms of private orderings do not exist, the market transactions of the agents can only be regulated and enforced by the public ordering. In this situation, the cost of defining and enforcing the rights of the agents, their bargaining and their litigation costs and many other costs may be classified either as the costs of using the market mechanism or as the costs of using the public orderings. In some way these costs can be classified under a single heading: they are the

costs of using only "public markets"⁶ or, in other words, markets that are not supported by the numerous "private orderings" like firms that exist in all the modern real life capitalist economies.

For both Coase and Fuller market contracts are necessarily incomplete. "Public markets" are costly and their incompleteness would be a necessary feature of an optimal world where these costs are an endogenous aspect of the economic analysis. In an optimal world "public markets" should only exist until their marginal benefit is greater than the marginal benefit of the private orderings by which they could be substituted. Moreover, even in an optimal world designed by some omniscient central planner, also the mix of private and public orderings could not aspire to perfection and completeness: all institutions are costly and the benefit that they give by regulating human interactions should always be compared to their costs.

3. "Legal equilibria" and private property.

Kelsen (1992) considered the validity of the law or its consistency as the proper object of legal studies and argued that the validity of legal rules should be distinguished from their justice and efficacy. If some final "grundnorm" was transcendently given the unity, the consistency and the completeness of the legal ordering could be established by checking the consistency of the rules with the hierarchical superior rules. Only the rules that satisfied this consistency test were valid rules of the legal system⁷.

In a stimulating debate with Fuller (1958) H. Hart (1958) "diluted" the Kelsenian separation between ethics and law⁸ and took an evolutionary approach to the formation of real life legal systems. However, he retained the idea that the validity of law is the central concept of positive law. A primitive society could well develop a system of "primary" rules without the intervention of central authority and some "grundnorm"

⁶ The term "public markets" was somehow suggested by the concluding lines of the famous Alchian and Demsetz (1972, p. 795) who observed:

"In contrast to markets and cities, which can be viewed as publicly or non owned market places, the firm can be considered a privately owned market; if so, we could consider the firm and the ordinary market as competing types of markets, competition between private proprietary markets and public or communal markets. Could it be that the market suffers from defects of communal property rights in organising and influencing uses of valuable resources?"

⁷ Ferrajoli (1993) has distinguished between a concept of validity based on the consistency with hierarchically superior norms and a procedural concept of validity meaning that the norms were promulgated by legitimate procedure. This distinction helps to understand that existing norms may be non-valid in the sense that they have been produced by a legitimate procedure but they are inconsistent with superior norms.

⁸ For other authors, like Finnis (1980), even a partial separation is impossible. At least the final "grundnorms" must be based on some ethical principles.

from which the validity of the other rules could be logically derived. However, such a system will be upset by uncertainty because in many cases the agents will maintain that different rules exist or should be applied in particular cases. It will also be static because, besides custom and tradition, nobody has the power to change the rules even when it may be urgent to do so. Moreover the system will be characterised by numerous contrasts and by an inability to impose sanctions that go beyond a system of private revenge. For this reason any such social arrangements will tend to evolve a system of "secondary" rules that can give some solution to the problems encountered by the system of "primary" rules that we have just considered. A rule of "recognition", establishing the "Kelsenian" validity of the primary rules, is the first attribute that a proper legal system should evolve. In order for the other shortcomings of a system of primary rules to be overcome, rules of change and of adjudication and sanction imposing rules must also be included in the system of secondary rules. Thus, a proper legal system is necessarily based on the existence of "second order" jural relations that give to some agents the power to identify clearly, change quickly and enforce efficiently those primary rules that may also emerge in a primitive society.

The importance of the distinction between "first order" and "second order" jural relations and the issues arising from the internal (in)consistency of a legal system can be better understood by referring to the works of Hohfeld (1919) and Commons (1924).

To simplify the argument we shall consider only the transactions between two agents x and y. According to Hohfeld, the "first order" jural relations define some necessary relations between the two agents:

(1) Claim (right) of x <---> Duty of y

or, in other words, an agent x has legal claim towards an agent y that y does the action A if and only if y has with respect to x the duty to do A.

(2) No right (exposure) of x <----> Liberty (no duty) of y.

or, in other words, and agent y has a legal liberty towards and agent x to do A if and only if x has no right towards y to prevent y from doing A and is, therefore, exposed to the liberty of y.

Of course, similar relations hold for the claims of y and the liberties of x:

(3) Claim (right) of y <---> Duty of x

(4) No right (exposure) of y <----> Liberty (no duty) of x

In this simple two-individual-relation the set of actions for which x has rights do not only define the duties of y. They define also the remaining actions for which y has the liberty to act (i. e. the set of actions for which x has no right to interfere and is exposed to the liberties of y). In other words, in this simple framework, the jural relations entail that the boundary between the rights and the exposures of x should coincide with the boundary between the duties and the liberties of y and vice versa.

Thus, concentrating our attention on relations (1) and (2) we have the following Table 1 concerning the first order jural relations.

Table 1: First order jural relations.

Right of x	Duty of y
Exposure of x	Liberty of y

Similar symmetries characterise the second-order jural relations that concern the possibilities of changing the entitlements considered above.

(1') Power of x <----> Liability of y

or, in other words, x has a legal power on an agent y to bring about a particular legal consequence C for y if and only if some voluntary actions by x would be legally recognised to have this consequence for y.

(2') Disability of x <----> Immunity of y

or, in other words, an agent y has a legal immunity with respect to an agent x from a specific legal consequence C if and only x has not the legal power to do any action that according the law would have the consequences C for y.

Again, similar relations hold for the powers of y and the immunities of x:

(3') Power of y <----> Liability of x

(4') Disability of y <----> Immunity of x

Also the second order jural relations do not only entail a symmetric correlation between the positions of the two agents. However, also in this case, the boundary between the powers and the disabilities of x should coincide with the boundary between the liabilities and the immunities of y and vice versa. Again, concentrating our attention on relations (1') and (2'), we obtain the following Table 2 concerning the second order legal relations.

Table 2: Second order legal relations

Power of x	Liability of y
Disability of x	Immunity of y

Both first-order and second-order jural relations have a prominent role in Commons' analysis of transactions and, in particular, in his distinction between authorised and authoritative transactions.

According to Commons minimum description of a transaction involves the two transacting agents, the two agents who are the next best transacting alternatives for each one of the two agents and the working rules according to which the transaction takes places⁹. The working rules of the transaction include the definition of the rights, the duties, the liberties and the exposures of the agents or, in other words, their entitlements. However, there is no guarantee that the working rules of the transactions satisfy the relations considered above¹⁰. If we concentrate our attention on the two agents x and y that are involved in the transactions, the two agents may well hold different views on their entitlements. For instance, the rights of the agent x may not be correlated with the duties of y and the liberties of y may not be correlated with the exposures to these liberties of x. In other words, the limit between the rights and the exposures of x may not coincide with the limit between the duties and the liberties of y. An "authorised transaction" occurs when, because of the activity of a fifth agent (the public authorities), the limit between the rights and the exposures of each agent coincides with the duties and the liberties of the other agent.

However, "authorised transactions" cannot be taken for granted. They require "authoritative transactions" and second order jural relations. In other words, a legal system can help to guarantee the correlation among the entitlements of the different agents.

Like for the case of the first order jural relations, also authoritative transactions may occur in a situation of "disequilibrium" where the limit between the powers and the disabilities of one agent do not coincide with the liabilities and the immunities of the other agent. Commons observes how, from the Magna Carta¹¹ onwards, legal systems

⁹ In other words Commons' notion of transaction costs does not only include the traditional *enforcement costs* which characterise the relation with the counterpart. It includes also the cost of the public institutions and the *competition costs* to be sustained by the agents when they seek to exclude their competitors from the market. On this point see Nicita (1999a and 1999b) who introduces the notion of *cross competition* that arises when both the assumptions of zero enforcement and competition costs are removed.

¹⁰ Commons (1924) observes that Hohfeld transactions can also be interpreted as ethical relations existing among the agents and may also be supported by traditional beliefs. However, Commons (1924 p. 85) observes that "There is, however, a difficulty with these ethical mandates. They are mental processes and therefore as divergent as the wishes and the fears of individuals. Hence, when they emerge into action they are individualistic and anarchistic. They are unrestrained in action by an actual earthly authority to whom each party yields obedience." The lack of subjective correlation may express itself in the fact that one agent sees the boundary of his rights different from the related boundary of the duty of the other agent. For this reason, according to Commons (1924, p. 86), "It seems that the only procedure that will *collerate* the wishes and fears of each and prevent anarchy is to resort to a third person of an earthly quality whom each consents to obey, or each is compelled to obey." Wellman (1978) has pointed out how Hohfeld relations can be interpreted as both ethical relations and jural relations and they can be written as two sets of independent propositions. Bobbio (1990) points out how ethical rights can only logically imply ethical duties and not legal obligations. According to him we can cause much confusion when we mix ethical and jural relations.

¹¹ However, Commons points out how the role of the Magna Carta was somehow limited. "When, in the Magna Carta, the barons claimed their 'liberties' they were claiming personal privileges, or the right to exercise the powers of sovereignty.In short, 'liberty meant, not liberty nor property, but political privilege' (Commons, 1924 p. 51).

have progressed towards the establishment of an increasingly clear correlation between powers and liabilities on the one hand and disabilities and immunities on the other.

The type of transactions, which are considered by standard economic theory, requires a complex equilibrium that involves both "authorised" and "authoritative" transactions. For instance, the boundary between the claims and the exposures of x must coincide with the boundary between the powers and the disabilities that public officials have to enforce his entitlements with respect to y. In a similar way, the limit between the duties of y and his liberties must coincide with the limit between the relative liabilities and immunities that y has with respect to public officials. Similar "equilibrium" relations must hold for the entitlements of y with respect to x.

Concentrating on the entitlements of x with respect to y we have the following table 3 that describes a situation of "legal equilibrium".

Table 3: Legal equilibrium.

Power of x via p. o.	<----->	Right of x	<----->	Duty of y	<----->	Liability of y via p. o.
-----		-----		-----		-----
Disability of x via p. o.	<----->	Exposure of x	<----->	Liberty of y	<----->	Immunity of y via p. o.

In a legal equilibrium the broken line separating the rights and the exposures of x coincides with the power and the disabilities that are granted to public officials (p. o.) to enforce her rights. It also coincides with the broken line separating the duties and the liberties of y which in turn coincides with the broken line that defines the boundary between the liabilities and the immunities that y has towards public officials.

However, the broken lines of table 3 do not need to be necessarily aligned. In reality a situation of legal disequilibrium, such as that considered in table 4, may well arise.

Table 4: Legal disequilibrium.

Power of x via p. o.	Right of x	Duty of y	Liability of y via p. o.
-----		-----	
Disability of x		Liberty of y	-----
via p. o.	----- Exposure of x		Immunity of y via p. o.

In table 4, the broken line, defining the boundary between the rights and exposures of x, does not coincide with that defining the boundary between the duties and the liberties of y. In this case the powers of and the liabilities towards public officials fail to correlate the legal entitlements of the two agents. By contrast, a well working legal system, equilibrating the power and liabilities that agents acquire through public officials, tends also to equilibrate their rights and duties or, in other words, tends to achieve the legal equilibrium considered in table 3.

According to the correlation between the entitlements of x and y requires a corresponding correlation of the second jural relations between the two agents and public officials. While Kelsen sees the unity and the consistency of the legal system as a pure matter of Logic and concentrates on the analysis of the validity of rules, Commons points out how the jural relations considered by Hohfeld cannot be taken for granted. They do rather require the costly intervention of public officials who attribute correlative powers and liabilities to the agents (via public officials) and, in this way, equilibrate also their rights and their duties. The limits to the powers and to the liabilities of public officials (or their disabilities to act in the interest of x and the immunities of y from their intervention) do also equilibrate the exposures and the liberties of the agents. In other words, while both first and second jural relations may well be in disequilibrium, a good legal system tends with the help of public official towards the realisation of a complex "legal equilibrium" where the conditions considered above are satisfied.

While Commons does not use the term "legal equilibrium" (or the term legal disequilibrium), perhaps, this term can usefully catch the originality of his contribution

and his distance from the Kelsenian tradition of the analysis of the validity of legal rules¹².

In the Kelsenian tradition the "consistency" of rules is a pure matter of Logic and eventual discrepancies have to be solved by stating which rule is hierarchically superior. For instance, if under some circumstances the rules state simultaneously the right of x to be assisted and liberty of y to do something else, the matter has to be logically solved by checking which of the two rules has priority. In a way the inconsistency did never arise for scholars who were aware of the logical rules governing the system and could easily state the validity of each single rule.

By contrast, according to Commons the consistency of a legal system is only an ideal goal of such system and some degree of disequilibrium is a permanent characteristic of the working of a legal system¹³. Moreover, in Commons' view, the elimination of disequilibrium is not a pure matter of Logic which requires a "corner solution" stating the priority of the rights of x over the liberties of y or vice versa. The costly elimination of the disequilibrium is a real process that may either involve "corner solutions" or "intermediate solutions" characterised by some dilution of the rights of x and of the liberties of y.

Commons analysis allows us to overcome the limits of both traditional jurisprudence and economics. In spite of the fact that Commons analysis of the legal foundations of capitalism preceded both Fuller's and Coase's contributions, it helps a deeper understanding of the joint implications of their works.

Transactions require some working rules and, even when the intervention of public officials is rarely necessary, the possibility of their "authoritative transactions" is important to correlate the expectations of the individuals. The analysis of market transactions requires, well before the analysis of "economic equilibrium" which has been the traditional focus of standard economic analysis, the conditions under which a complex "legal equilibrium" can come about. By contrast, Law and Economics have developed completely separate analysis of the conditions that are necessary for the respective "equilibria".

On the one hand, Economics, ignoring the complex first order and second jural relations that must be satisfied for the existence of a "legal equilibrium", has relegated

¹² In some respects, the Kelsenian concept of validity of rules establishing the complete consistency of lawful behaviors is analogous to the Walrasian concept of economic equilibrium. On this point see Pagano (1995). However, the level at which this consistency is established is different. As Gianformaggio (1993), as pointed out, lawful behavior is made of normative statements that are not intended to represent the actual behavior of the individuals.

¹³ Like most economic relations, legal relations become "ex-post" simple accounting identities. "Ex post", if x was exercising some rights, y was necessarily observing some duties. However, the existence of these "ex-post" accounting identities does not imply that there was "ex-ante" equilibrium between the expectations of x of her rights and the expectations of y of his duties. In other words, "ex-ante" disequilibrium is consistent with the "ex-post" identity between rights and duties (or between liberties and exposures etc.).

itself in a Nirvana where the conditions for this equilibrium are perfectly realised. In this way, with few exceptions, economists have ignored the costs that must be sustained in real life where a "Deus ex machina", like perfectly costless, honest and omniscient public officials, cannot be assumed to exist.

On the other hand, Law has ignored the economic conditions and the resource constraints that must be satisfied for the existence of a "legal equilibrium". It has been assumed that an economic equilibrium exists independently of the legal relations that are considered. While the rights of the individuals have been often emphasised, the economic conditions that must be satisfied for the correlative duties to be satisfied have often been ignored. In a similar way, while the liberties of the individuals have often been declaimed, the economic costs of the corresponding exposures have not been adequately taken into account. In this sense Law has implicitly relegated itself in a Nirvana where the conditions for an economic equilibrium can always be assumed to exist independently of the rights and the liberties that are given to the agents.

In other words, the separation between Law and Economics has often been based on a double Nirvana fallacy which is particularly evident in the "complementary assumptions" of a complete centralised legal ordering and completely decentralised markets. Commons' analysis clarifies how the decentralised transactions of markets require costly authoritative transactions that help to achieve a legal equilibrium and the consistency of the working rules within which transactions take place. In line with Coase's and Fuller's contributions these costs point towards the possibility of a "centralisation" of market transactions and a "decentralisation" of the public ordering or, in other words, away from a world organised only by the means of "public markets".

In particular, firms may be seen as "going concerns" where some working rules are established by private agents who bear the costs of setting up a "private" legal equilibrium which is specifically tailored to certain types of transactions. The public officials may lack either the incentives or the skills to set up and enforce a "public ordering" within which these transactions can take place and, in many cases, private entrepreneurs can be often a good substitute for public officials.

However, public and private orderings should not be seen only as substitutes. They are also within certain limits complementary institutions¹⁴. Like in the case of the student expelled from College (that we have seen to be considered by Fuller), private orderings do often require the possibility of appeal to public orderings. Public orderings can check the "constitutional" validity of the private orderings and the ways in which their working rules have been applied. They can also supply the monopoly of physical

¹⁴ An analysis of the complementarity between market and authority relations can be found in Franzini (1992).

coercion that belongs to the public ordering¹⁵. At the same time the public ordering can benefit from the innovations and the experimentation that occur in the sphere of private orderings where, within certain limits, competition can help the selection of the "fittest" working rules.

In a word characterised by the ignorance of the transaction costs of "public markets" it is not only difficult to understand the role of "private orderings". It is also difficult to find good reasons for the existence of private property whose fundamental characteristics can be usefully understood by referring to the jural relations considered by Hohfeld and Commons.

As Simmonds (1986, p.132) points out "The right of ownership is really a complex bundle of claim-rights, liberties, powers and immunities. An owner of land, for example typically enjoys (*inter alia*) the claim-right that others not trespass on his land, the liberty to walk on his land, the powers to transfer title to others, and the act of immunity against having his title altered or transferred by the act of another."

Private property defines an exclusive right on the use of some good and the duty of others of non-interfere with it. Thus, the individual acquires a liberty to choose among alternative uses of the good and the others are exposed to these choices.

With private goods, private property allows an optimal decentralisation of decisions in the sense that no individual is exposed to the liberty (choices) of other individuals. Each new set of uses that improves the utility of the owner of the private good does necessarily lead to Pareto improvements. This characteristic of a private economy holds independently of exchange. This quality of private property cannot be seen in a world of zero transaction costs where individual take together consumption and exchange decisions. In the traditional setting one misses the main quality of private property that is the possibility of taking decisions without incurring in the cost of transacting with other people.

This cost of transacting may be such that the assignment of private rights may be worthwhile even when the liberty entitled to an individual on her private property involves exposures among which other individuals are not indifferent. With positional¹⁶, public and complementary goods the assignment of private property rights cannot "separate" consumption decisions from the transactions with other individuals. An

¹⁵Competition in the exercise of physical coercion is not desirable because it involves transactions that can be assimilated to a state of war. When this "competition" occurs the famous analysis of Hobbes (1651) involves the convenience of the formation of the monopoly of force by the State. Moreover, according to Hobbes, wasteful competition was pervasive and the law should not simply remove the impediments to private agreements but also minimise the harm caused by failures in private agreements. On this point see Cooter, Ulen (1997, p. 97) who distinguishes between the "normative Hobbes and Coase theorems".

¹⁶ Positional goods can be considered as a case polar to public goods and involves the joint consumption of a positive and negative quantity of the same good. Power and status are good examples of positional goods. On this point see Pagano (1999).

externality can be seen as the impossibility of private property rights to eliminate the interferences among the "liberties" of the different individuals. However, if these interferences involve sufficiently limited losses of welfare, unfettered private property may still be convenient because the costs of organising the relative transactions may well offset the gains obtained when each individual takes into account the exposures correlated to the exercise of his liberties¹⁷.

4. New Property Right Approach and Private Orderings.

In some ways, the New Property Right approach has emphasised one aspect of the Coasian argument that we have just considered.

In a world characterised by zero transaction costs, complete contracts could be written and applied at no cost by public officials. In this situation, even when the investments in human capital are specific to physical capital, its ownership is irrelevant for the safety of these investments. Independently of the private ownership of the means of production, each agent can state in a complete contract the conditions of her participation and in particular the retributions that are due for her investment in human capital. Or, in other words, in this situation, the liberty of the owners of physical capital is limited by a complete contract which protects the "exposures" of the other agents who have invested in human capital and have contracted the right to reap the fruits of their investments. Moreover, when the agents can write a complete contract, the power, which the "owners" of physical capital have can exercise by holding up their capital, is limited by the immunity that the other agents have against the expropriation of the benefits of their investment in human capital.

In a world of zero transaction cost, a complete contract can not only protect the investment in human capital against the hazards due to its specificity to physical capital but can also safeguard it against the hazards due to its specificity to the investments in human capital of other agents. After the contract has been signed, public officials can limit the liberty of each agent to use her human capital in a way that damages the other agents who have also invested in specific human capital. Public officials can also limit the power that the agents have to withdraw their human capital from cooperating with

¹⁷ In the case of work, if people care about the allocation of their own labour, private property rights cannot separate the welfare of individuals after exchange. One cannot sell her labour power to another away and then walk away. In orthodox economic theory the exchange of labour power becomes equal to the exchange of any other private good only because leisure (and not the different types of work) are included in the utility function of the individuals. On this point see Pagano (1985).

other agents and can in this way give these agents some sort of immunity against the hazards of hold-up.

For these reasons, when market transaction costs are zero (or the cost of using a centralised legal ordering is zero), it is possible to achieve a first best solution. The agents invest in human capital up to the optimal point where the marginal cost of their investments is equal to their marginal cost.

In the New Property Right approach the importance of private property emerges very clearly when third parties cannot verify the efforts or the results obtained by investing in human capital and it is, therefore, impossible to write a complete contract. Under these circumstances each agent is exposed to the threat of non-cooperation of the other agents and the first best result cannot be achieved because the public officials cannot impose penalties that eliminate the advantages of this type of behavior. In this situation the private property of physical capital can give some advantages that would not arise in a situation of zero transaction costs (or zero cost verification by the public ordering). Owners are entitled to do with their goods whatever thing is not explicitly forbidden by contracts and their residual liberties can well include actions that expose other agents to the negative consequences of the exercise of these liberties. Moreover, when this is not limited by contractual obligations, private property entitles the owners with the right to withdraw the use of physical capital from the other agents also in the case when their human capital investment is specific to this physical capital.

When contracts are incomplete, private property matters for human capital investments and the ownership of physical capital becomes most valuable for those agents who have to make the most relevant and specific investment in human capital. In case of break up of cooperation with the other agents owners can at least count on the access to physical capital. Ownership increases bargaining power with respect to other agents and provides owners with a greater incentive to invest in human capital in comparison to the other individuals.

However there is very little that ownership of physical capital can do to guarantee the cooperation of the other agents. Thus, even the agent who owns the physical capital is exposed to the hold up of the agents who have invested in specific human capital. Moreover, all the other agents are exposed to the risks of hold-up of human and physical capital.

The gap between the "first best solution" obtained in a situation where there are complete contracts and the "second best solution" that is obtained with an efficient allocation of physical capital can, under some circumstances, become very wide. It becomes equal to zero when only one agent has made human capital investments that are specific to physical capital and no agent has to make investments specific to the human capital of the other agents. By contrast, it becomes very large when many agents have to make investments in human capital that are specific to the other agents and to

physical capital. In the first case the "efficacy" of the "correct" allocation of private property (measured as a means of narrowing the gap between the "first" and "second" best) is maximum¹⁸. In the second case the "efficacy" of the "correct" allocation of private property is almost negligible. When private property is the only tool that an economic system can use to face the problem of contractual incompleteness, the underinvestment in human capital can turn out to be unbelievably large.

Thus, the New Property Right approach provides an interesting example in which, because of the impossibility of third party enforcement, private property matters. However, it does not provide much insight in the theory of the firm and to the question "why do firms exist?".

The private property of physical capital by the people who make the most relevant investment in human capital has little to do with the existence of that complex institution that is the firm. As Bolton and Scharfstein (1998) have observed, only a pre-Bearle&Means¹⁹ analysis can ignore the very frequent separation of ownership and control. There is often a complete lack of identity between those who have invested in the physical capital of the firm and those who have made the largest human capital investment to run it. Moreover, as Kreps (1990) has pointed out, identifying (or rather confusing) the problem of the existence of the firm with that of the ownership of physical capital would leave us with little or nothing to say for firms that make little use of physical capital. The firm should not be confused with the private property of some means production but should rather be seen in the Coase-Fuller tradition as a "private ordering" that might or might not be related with the ownership of the physical capital that it uses.

The problem with the New Property Right approach is that it considers a dichotic world where third parties can verify some contracts at zero cost and some other contracts at an infinite cost. The markets for physical capital operate at zero transaction costs and their efficiency is not limited by any wealth or credit constraint. By contrast, the contracts for the results or the efforts of human capital investments are characterised by a total impossibility of third party verification or, in other words, by infinite transaction costs.

In other words, in the New Property Rights approach the costs of the public ordering are assumed to be either zero or infinite (this is still another way by which the "Swiss cheese" assumption, that is implicit in this theory emerges). This assumption can help to understand the importance of the private property of physical capital in the

¹⁸According to Barca (1994) the increasing knowledge intensive characteristics of modern economies imply that this gap between first and second best becomes increasingly wide and the incentive effects of ownership must be integrated or replaced by other means.

¹⁹ See in particular book IV of Berle and Means (1997). The book was originally published in 1932 and updated in 1968. It has been recently reprinted in 1997 with a new introduction of Murray Weidenbaum and Mark Jensen.

context of a simple example. However, it obscures the role of the public ordering²⁰ and implies conditions under which the incentives to invest in the set up and the enforcement of the working rules of private orderings cannot arise. If the cost of third party verification of certain relations is zero or infinite, it cannot be convenient to invest in verification capacities especially when these abilities have to be specific to these relations. By contrast, this convenience can well arise when verification costs are strictly positive but not infinite.

With strictly positive but non-infinite verification costs, public investments in the public ordering (or in the "centralised" legal equilibrium that is often implicitly assumed to exist for free in standard economic theory) may well become convenient. In this way, the degree of contractual incompleteness, which we should expect in "public" markets, can well become an endogenous economic problem. Moreover, with strictly positive but non-infinite verification costs also the private agents can conveniently invest in building up and running "decentralised legal equilibria". In this context, one of the most relevant economic problems becomes the analysis of the relations of complementarity and substitutability of private and public orderings and, in particular, the analysis of the relations between public markets and corporate governance.

Private property of physical capital can be considered as a particular case of private ordering that becomes useful when the agents cannot contract at zero cost their participation to certain concerns. However, when verification costs are not infinite, private orderings, can do more, and often different things, than entitling a particular agent with the liberty to use particular physical assets or than giving him the power to exclude the other agents from the use of these assets.

5. GM, Fisher Body and "second order specific investments".

According to Oliver Hart (1995) the integration of Fisher Body and GM is a standard and well-known example of the incentive effects of private property. It shows that the acquisition of the private property of physical capital can be the means to incentivate human capital investments. It clarifies the advantages of vertical integration

²⁰ This seems to emerge also from the recent controversies concerning this approach. Maskin and Tirole (1999) have argue that, if the agents could commit themselves not to renegotiate, "second best" outcomes, due to non-verifiability of the types of "widgets" to be produced, would not arise. In this case the party who has invested in human capital could be given the right to make a take-it-or-leave-it offer to the other party and would be able to capture the entire surplus. This type of contract would align private and social objectives to invest. Also in this case the verifiability and enforcement costs of third parties are not considered. The verification and the enforcement of ex-ante commitments to non-renegotiations (among consenting adults, who wish to renegotiate ex-post) can be very costly. The so-called "first best solution" is such only because these costs are simply ignored. Even in their reply to Maskin and Tirole, Hart and Moore (1999, p. 128) do not refer to these costs but to the practical impossibility of blocking renegotiations that occur through various middleman and, in footnote, to the argument that in practice many agents are characterized by bounded rationality.

and the costs of the expansion of the boundaries of the firm. However, we will argue that the Fisher Body-GM story provides a powerful counter-example to the New Property Right approach. It shows that, while the acquisition of the private property of the means of production by the individual making the greatest investment in physical capital may in some cases be irrelevant, the other characteristics of a private ordering may best explain vertical integration and the boundaries of the firm.

Hart (1995, p. 7) observes that "for a long time Fisher Body and GM were separate firms linked by a long-term contract. However, in the 1920s GM's demand for car bodies increased substantially. After Fisher Body refused to revise the formula for determining price, GM bought Fisher out".

Why vertical integration (and not simply a better contract) was the solution to the problems between GM and Fisher Body?

According to Hart (1995, p. 7) one can argue that "GM recognised that, however good a contract it wrote with Fisher Body, situations similar to the one it had just experienced might arise again; that is contingencies might occur that no contract could allow for". Ownership of Fisher Body gave GM extra power by giving it residual control rights over Fisher Body assets. If similar contingencies were to arise again in the future, GM could now even dismiss the managers of Fisher Body if they refused to accede to GM's request.

The interpretation consistent with the property right approach relies on the idea that the acquisition of assets by GM increased the incentive to invest of GM managers in figuring out how to reduce costs more than it decreased the incentive to invest by Fisher Body managers. The allocation of ownership was efficient: ownership increased the bargaining power and the incentives of the agents who should make the most relevant human capital investments. According to the New Property Right approach, ownership over assets means power over people and "firm boundaries are chosen to allocate power optimally among the various parties to a transaction". Or, in other words, "power is scarce resource that should never be wasted" (Hart, 1995, p. 7).

In general, the strong incentives that, according to the New Property Right approach the ownership of physical assets gives to individuals raises the question "why firms, as opposed to individuals, should own any assets" (Holmstrom, Roberts p. 79)²¹. However, the GM-Fisher Body example is particularly unfortunate. As a result of the take-over a famous GM manager Alfred Sloan acquired the control of the Fisher Body owned by the Fisher family. If we look at this case through the lenses of the famous Berle and Means contribution the main implication of the merger is that "now Fisher Body is run by a manager and agent of owner (Sloan) instead of by the owners

²¹According Holmstrom and Roberts (1998) at the present the property rights models are so stylised that they cannot answer this questions". Perhaps, as a consequence, they are even less suitable to consider the "State versus Private Ownership" problem examined by Shleifer (1998).

themselves (the Fisher brothers)"²². One could even speculate that the merger lead to greater inefficiencies due to increased agency costs. One could even maintain that "the merger itself was a manifestation of agency costs, a desire to build an empire by a manager who does not bear the full costs of the decision (Bolton and Scharfstein 1998, p. 103). If we want to give an efficiency type of explanation we must turn to something different than the incentive effects of the "private property" and, in particular, to the characteristics of the new "private ordering" that Alfred Sloan had created within GM before the acquisition of Fisher Body.

The "private ordering" that Alfred Sloan, Fuller's "King Rex" of GM²³, had created involved the decentralisation of operating responsibilities and centralised policy formation.

Before Alfred Sloan regime at General Motors the Executive Committee was composed of division managers and there were no headquarters acting as intermediary between and coordinator of the different divisions. As a result there was a lot of horse trading among division managers. Each manager was ready to approve other projects on condition that he could get a favourable vote on his own project (Chandler, 1962 p.127, Bolton and Scharfstein 1998, p. 103.). Presumably, disputes like the one between GM and Fisher Body considered by Hart could also well arise among the GM divisions pre-existing the merger and they would have been inefficiently solved by the some type of horse trading among managers. Perhaps, the acquisition of GM in this situation would have resulted in an unbearable further growth of costs due to the wasteful rent-seeking activities of the managers²⁴.

However, before the acquisition of Fisher Body, a new private ordering characterised by different working rules had already emerged at GM. Under the new working rules the division managers would now bargain²⁵ being well aware that there was a third party in the bargain: the corporate headquarters who had ultimate control

²² See Bolton and Scharfstein (1998, p.103) who point out that in 1939 Sloan had 0.82 of GM stock and was unlikely to have more than that amount at the time of the acquisition of Fisher Body.

²³ One could object that, unlike public officials and judges, managers are interested in maximising wealth. However, according to Posner (1981) also ordinary judges should and do maximise wealth. This assumption is criticised by Coleman (1992) and Dworkin (1992).

²⁴ Milgrom and Roberts (1990) point out that in general replacing markets with firms decreases bargaining cost and increases rent-seeking costs that they call "influence costs". Either rent seeking or influence costs arise each time that there is a centralised authority in a private or in a public ordering. In the case of GM the absence of independent headquarters made rent seeking costs particularly high. D'Antoni (1995) points out how authority can prevent the type of "horse trading" that was taking place at GM only if some "procedural" control is available. This must include the impossibility of trade between the authority and the subordinate agents even when this trade is advantageous ex-post. If one allows subordinate agents to trade with the authority supervising their interactions, it is very hard to limit the "rent-seeking" activities that each subordinate may undertake to be favoured relatively to other subordinates.

²⁵ Bolton and Scharfstein (1998, p. 105) point out another important differences with the Grossman-Hart-Moore framework. In reality the bargain takes place among division managers who, moreover, do not bargain for "the profits they will pocket themselves, but rather for their division's share of corporate resources to be used mainly for investment".

over the company resources and were hierarchically superior to the division managers. Under the new working rules, in Sloan's mind "a merger with Fisher Body was called for essentially to bring Fisher body under the umbrella of the newly created administrative structure and thus take full advantage of the coordination benefits of General Motors' general office" (Bolton and Scharfstein 1998, p. 105).

Thus, in the Fisher Body - GM case, the choice was not among different allocations of the private property of physical capital but between the use of "public markets" and the use of a (new) private ordering. The top managers made some investments in human capital specific to the relations that were at stake. The investments did not only include the set up costs of devising the working rules of a new private ordering but also the specific investments necessary to monitor and verify the relations among division managers. These specific investments were unlikely to be done by courts and other public officials supervising "public markets" and their absence was, perhaps, in many cases at the origin of the situation of pronounced contractual incompleteness that characterised the relations between GM and Fisher Body when they were independent companies. In terms of the Commons' terminology the switch from public markets to the new private ordering implied a form of corporate governance that had internalised not only some the "authorised" transactions that existed between the two companies but also some of the "authoritative" transactions between them and public officials. The "legal equilibrium" that, before the merger, failed to be achieved by the working of public officials could now be achieved thanks to the "authoritative transactions" between headquarters and division managers.

Williamson (1996, p. 95) has pointed out how classical contract law "applies to the ideal transaction in law and economics in which the identity of the parties is irrelevant". When specific investments make it relevant the identity of the parties, even relevant investments by public authorities in public markets cannot bring about a satisfactory degree of contractual completeness. In this case the initial contract cannot be a good framework to understand the long-standing relations that are likely to characterise the relations among the agents. In this situation, the allocation of "private property" of capital may become a relevant way to enhance efficiency. However, the emergence of a "private ordering" can be a much more effective way to deal with this situation.

Arbitration can be interpreted as a rudimentary form of private ordering in which some agents make specific investments in the understanding of the specific relations of other agents and contribute to subject their behavior to the governance of rules that reduce the hazards of contractual incompleteness. In this respect Williamson (1996, p. 97) refers to the following passage by Lon Fuller who pointed out some of the ways in which, unlike courts, arbitrators can help to achieve this result:

"[T]here are open to the arbitrator....quick methods of education not open to the courts. An arbitrator will frequently interrupt the examination of witnesses with a request that the parties educate him to the point where he can understand the testimony being received. This education can proceed informally, with frequent interruptions by the arbitrator, and by informed persons on either side, when a points need clarification. Sometimes there will be arguments across the table, occasionally even within each of the separate camps. The end result will usually be a clarification that will enable everyone to proceed more intelligently with the case (Fuller, 1963 pp. 11-12).

This passage shows how the creation and use of private orderings can contribute (much more than the allocation of the private property of physical capital) to the solution of the problems arising from contractual incompleteness. When we remove the assumption that third parties cannot make specific investments to monitor and verify particular relations, we can easily see that the specificity of particular relations may easily involve a "second order" specificity. In this situation, some agents may well invest specific human capital in the understanding of the specific relations existing among the agents and contribute to the set up and to the application of better working rules.

Unified corporate governance may be a much more pronounced step in the substitution of a public ordering for a private ordering. The continuity and the specificity of some relations may favour "second order" specific investments that go well beyond those involved by arbitration. While arbitration is an intermediate form that can often revert to forms of litigation at the public courts, the substitution of the public ordering that is operated by corporate governance is much more evident.

Williamson (1996 p. 98) observes that the "implicit contract law of internal organization is that of forbearance. Thus, whereas courts routinely grant standing should there be disputes over prices, the damages to be ascribed to delays, failures to quality and the like, courts will refuse to hear disputes between one internal division and another over identical issues. Access to courts being denied, the parties must resolve their differences internally. Accordingly, hierarchy is its own court of ultimate appeal."

With the acquisition of Fisher Body the headquarters of GM became the "ultimate court of appeal" in the disputes between the managers of the former plants of Fisher Body and the other managers of the GM plants. Part of the investments in human capital of the GM top managers was a "second order" specific investment²⁶ in human

²⁶ Alchian and Demsetz (1972) have pointed out that the firm may arise as an answer to the monitoring problem arising in team production. In this case the specific investment by managers would not seem to be motivated by the need of stimulating "first order" specific investments. On the other hand, in team production, the asset specificity problem and the monitoring problems are strictly related. As Alchian (1984 p. 39) has later observed:

"Team production makes measurability of marginal products difficult, but not impossible. Even without team production, the contribution of one person in an exchange may not be economically measurable in

capital in the understanding of and running the specific relations that characterised the human and non-human capital employed at GM.

In a way analogous to that considered by H. L. A. Hart (1961), top managers would set up systems of secondary rules that improved on the primary rules that the agents could work out without their intervention. The continuity and specificity of the relations made it difficult for public authorities to device general secondary rules. Secondary specific rules were required to run specific and continuously evolving relations. A "private legal equilibrium" could provide a solution that public markets could not offer. Indeed, one of the possible explanations of the authority and autonomy that was granted to GM managers was that they would make these "second order specific" investments in human capital only if they had some relative certainty to run the relations for some time. The continuity of the relations, the difficulty of the monitoring problems and the size of the "first order" specific investments implied that an arbitration system was insufficient to guarantee sufficient "second order" specific investments and sufficient authority to run the interactions among the agents. Relatively to arbitrators and other types of intermediaries, top managers acquired extra-safeguards for their specific investments and extra-powers to run the interactions among the other agents²⁷. For instance, unlike arbitrators top managers acquired hiring and firing rights with respect to the managers of all GM divisions, including those that had previously belonged to Fisher Body.

The incentive virtues of private property did not play any role (and perhaps played a negative role) when the control of Fisher Body was transferred from private owners (the Fisher family) to non-owning managers. By contrast, the incentive virtues of a private ordering were very likely to play an important role. Private ownership was coupled with a more intensive use of a public ordering and of courts, whereas managerial control made it possible to exploit the advantages of a specific private ordering. While the managers of GM did not enjoy the incentive effects of private ownership, they had sufficient incentives to undertake the specific investments

all pertinent characteristics. If one party can gain by shirking in its performance, this means that the other party is specific to the shirker by the circumstances. This mode of expression emphasises the specificity of one resource to another, but it obscures the significance of measurement of performance. On the other hand, if measurement of performance is emphasised, then the significance of expropriability of coalition interspecific rents resource quasi-rents is obscured. Even if measurement were no problem at all, opportunistic behavior can occur blatantly because contracts are not costless to enforce, though I presume that without substantial expropriable quasi-rents of specific resources, blatant defiant cheating is not likely to be a serious problem."

Thus, it would not be inconsistent with Alchian and Demsetz theory to define the firm as a private ordering where some agents (the managers) make "second order" specific investment in human capital to run relations involving "first order" specific investments. Zingales (1998, p. 499) considers the relative advantages of various definitions of the firm.

²⁷ With the help of standardisation and other forms of agreements among agents it is possible to decrease the "specificity" of the investments. On this point see Pagano (1991) and Battistini (1998).

necessary to build up and run a private ordering that could improve on the situation of costly and incomplete contracts that characterised "public markets".

6. Conclusion.

Whereas the acquisition of Fisher Body by GM replaced the working of the public markets with a private ordering, the further separation of ownership and control that it entailed implied the necessity of new complementary roles for the public ordering. While the disputes between GM and the former Fisher Body plants could be left to the private ordering created by Alfred Sloan, it became necessary to have public authorities increasing the transparency of the stock exchange and courts able to assess whether managers had carried out their fiduciary duties. In turn these developments created new opportunities for the private ordering existing in the economy. The complementarities and the substitution among the private and public ordering of the economy developed along a path whose analysis is well beyond the scope of this paper. However, it is worthwhile to conclude with three observations.

In the first place the complementarity and substitution relations between the public and private sphere of the economy imply that many paths of institutional development are possible and we should not be surprised if different countries have developed different models of corporate governance²⁸. The rent seeking²⁹ activities within both private and public orderings may imply that different agents in different countries have different safeguards for their assets. These safeguards may induce different levels of investments that may, in turn, create new demands of more effective safeguards³⁰. Self-reinforcing organizational equilibria can, therefore characterise the public and private ordering of the different countries and explain the diversity of their history.

Secondly, while the paper has focused on the relations between "formal" systems of private and public orderings, the study of these systems cannot be abstracted from the

²⁸ On the divergence of corporate governance models see Pagano (1993 and 1999), Pagano, Rowthorn (1996), Barca, Iwai, Pagano, Trento (1999) and Weimer, Pape (1999) and Screpanti (1988). The particularity of law and its context dependent character are considered in Mattei and Cafaggi (1998).

²⁹ Rent seeking costs in private organisations are called "influence costs" by Milgrom and Roberts (1990). Either rent seeking or influence costs arise each time that there is a centralised authority in a private or in a public ordering.

³⁰ Kapp (1976, p. 217) observed that the principle of interlocking circular interdependencies within a process of cumulative causation is "at the core of institutional economics" and "sets it apart from earlier non-institutionalist approaches and particularly from mechanistic equilibrium analysis".

informal rules, the customs and the ethical codes that have evolved in different countries³¹.

Finally, the desirability of a public policy cannot be judged independently of the particular history of the public and private orderings of a particular country. Perhaps, the only general recommendation, which emerges from our analysis, is that one should never forget that markets rely very much also on the public ordering of the economy and that they cannot be created by simply destroying pre-existing forms of State intervention³².

References

Alchian A. (1984) Specificity, Specialization and Coalitions. *Journal of Institutional and Theoretical Economics* pp. 34-39.

Alchian and Demsetz (1972) Production, Information Costs and Economic Organization. *American Economic Review*, 62 pp. 777-95.

Anderlini L., Felli L. (1998) *Costly Coasian Contracts*. Mimeo, Cambridge.

Barca F. (1994) *Imprese in cerca di padrone. Proprietà e controllo nel capitalismo italiano*. Laterza, Bari.

Barca F, Iwai K., Pagano U., Trento S. (1999) The Divergence of the Italian and Japanese Corporate Governance Models: The Role of the Institutional Shocks. *Economic Systems* Vol. 23 pp. 35-59

Battistini A. (1988) Competitive Imitation, Asset Specificity and Efficiency. *Quaderni del Dipartimento di Economia Politica*. N. 227. Università di Siena.

Berle A.A., Means G. C. (1997) *The Modern Corporation & Private Property*. Transaction Publishers, New Brunswick, U. S.

Black B., Kraakman R., Tarassava A. (1999) *Russian Privatization and Corporate Governance. What Went Wrong?* Mimeo, Stanford.

Bobbio N. (1990) *L'età dei diritti*. Einaudi, Torino.

Bolton P., Scharfstein D. S. (1998) Corporate Finance, the Theory of the Firm, and Organisations. *The Journal of Economic Perspectives* V. 12 pp. 95 -115.

³¹ As Hodgson (1988, p. 160) points out "The vision of a 'pure' market or capitalist system which has driven out all vestiges of habit and tradition is both theoretically implausible and unrealisable in practice". For this reason the stream of institutional economics related to Commons' work should be integrated with that deriving from Veblen. On the different streams of institutional economics see Hodgson (1998).

³² Unfortunately, the opposite philosophy prevailed in the mass privatisation process that was advocated for Russia and other ex-socialist economies. For a criticism of this economic ideology see Stiglitz (1999) and Black, Kraakman , Tarassava (1999).

Calabresi G. e Melamed A. D. (1972) Property Rules, Liability Rules and Inalienability: One View of the Cathedral, *Harvard Law Review*, 85(6) pp. 1089-128.

Calabresi G. (1991) The Pointlessness of Pareto: Carrying Coase Further, *The Yale Law Journal* Vol. 100:121.

Chandler A. (1962) *Strategy and Structure*. MIT Press, Cambridge, MA.

Coase R. H. (1937) "The Nature of the Firm" *Economica* pp. 386-405. Reprinted in R. H. Coase (1988) *The Firm, the Market and the Law*. University of Chicago Press, Chicago pp.-57.

Coase R. H. (1960) "The Problem of Social Costs" *Journal of Law and Economics*, 3 pp. 1-44. Reprinted in R. H. Coase (1988) *The Firm, the Market and the Law*. University of Chicago Press, Chicago pp. 95-157.

Coase R. H. (1988) *The Firm, the Market and the Law*. University of Chicago Press, Chicago.

Coase R. H. (1993) "Coase on Posner on Coase". *Journal of Institutional and Theoretical Economics* V. 149 N. 1 pp. 96-99.

Cooter R., Ulen T. (1997) *Law and Economics*. Addison Wesley, Reading, Ma.

Coleman J. (1992) Efficiency, Utility and Wealth Maximization in J. L. Coleman and J. Lange *Law and Economics*, Dartmouth, Aldershot.

Commons J. R. (1924) *Legal Foundations of Capitalism*. Augustus M. Kelley . Publishers, Clifton [reprinted, 1974]

D'Antoni M. (1995) *Contrattazione incompleta e modelli di organizzazione gerarchica*. PhD thesis. University of Siena.

Dworkin R. M. (1977) Is Law a System of Rules? in Dworkin R. M. ed. *The Philosophy of Law*. Oxford University Press, Oxford.

Dworkin R. M. (1992) "Is Wealth a Value?" in J. L. Coleman and J. Lange *Law and Economics* Dartmouth, Aldershot.

Ferrajoli L. (1993) Il Diritto come sistema di garanzie. *Ragion Pratica* N. 1 pp. 143-162.

Finnis J (1980) *Natural Law and Natural Rights*. Clarendon Press, Oxford.

Franzini M. (1992) The Role of the Market in a Complex Institutional Order. *Quaderni del Dipartimento di Economia Politica* n. 146. Siena.

Fuller L. L. (1958) Positivism and Fidelity to Law - A Reply to Professor Hart. *Harvard Law Review* V. 71. Reprinted in Feinberg J., Gross H. (1991) *Philosophy of Law*. Wadsworth Publishing Company, Belmont, California.

Fuller L. L. (1963) Collective Bargaining and the Arbitrator. *Wisconsin Law Review*. Pp. 3-46.

Fuller L. L. (1969) *The Morality of Law*. (Revised Edition). Yale University Press, New Haven and London.

Gianformaggio L. (1993) *Diritto e ragione fra essere e dovere essere. In le ragioni del garantismo. Discutendo con Luigi Ferrajoli*. Giappichelli, Torino.

Hart H. L. (1958) Positivism and the Separation of Law and Morals. *Harvard Law Review* V. 71. Reprinted in Feinberg J., Gross H. (1991) *Philosophy of Law*. Wadsworth Publishing Company, Belmont, California. pp. 48-81.

Hart H. L. (1961) *The concept of Law* Clarendon, Oxford

Hart O. (1995) *Firms, Contracts and Financial Structure*. Oxford University Press, Oxford.

Hart O., Moore J. (1999) Foundations of Incomplete Contracts. *Review of Economic Studies* V. 66 pp 115-138.

Hayek F. (1973) *Law, Legislation and Liberty*. The University of Chicago Press, Chicago.

Hobbes T. (1973), *Leviathan*. First published in 1651. Dent ,London and Melbourne.

Hodgson G. M. (1988) *Economics and Institutions*. Polity Press, Oxford.

Hodgson G. M.(1998) The Approach of Institutional Economics. *Journal of Economic Literature*. Vol. XXXVI pp. 166-192.

Hohfeld W. N. (1919) *Fundamental Legal Conceptions*. Yale University Press, New Haven and London.

Holmstrom B., Roberts J. (1998) The Boundaries of the Firm Revisited. *The Journal of Economic Perspectives* V. 12 pp. 73-95.

Kapp K. W. (1976) The Nature and Significance of Institutional Economics. *Kyklos*, V. 29 pp. 209-232. Reprinted in W. J. Samuels (1988) *Institutional Economics* Edward Elgar, Southampton.

Kelsen H. (1992) *Introduction to the problems of legal theory*. A Translation of the First Edition of the *Reine Rechtlehere*. Clarendon Press, Oxford.

Kreps D. M. (1990) Corporate Culture and Economic Theory. In Alt J. E. e Shepsle K. A. *Perspective on Positive Political Economy*. Cambridge University Press, Cambridge.

Maskin E., Tirole J. (1999) Unforeseen Contingencies and Incomplete Contracts. *Review of Economic Studies*, V. 66 p. 83 -114.

Mattei U, Cafaggi F. (1988) *Comparative Law and Economics*. In Peter Newman (ed.) *The New Palgrave Dictionary of Economics and the Law*. Macmillan, London.

Milgrom P. and Roberts J. (1990) Bargaining Costs, Influence Costs and the Organization of Economic Activity. in Alt J. E. and Shepsle K. J. *Perspectives on Positive Political Economy*. Cambridge University Press, Cambridge.

Leoni B. (1980) *Scritti di scienza politica e teoria del diritto*. Giuffr , Milano.

Nicita A. (1999a) Endogenous Outside Options, Incomplete Contracts and the Nature of the Firm. *Quaderni del Dipartimento di Economia Politica* N. 250, Universit  di Siena.

Nicita A. (1999b) The Firm as an Evolutionary Enforcement Device. Forthcoming in Nicita A, Pagano U eds. *The Evolution of Economic Diversity*, Routledge, London.

Posner R. (1981) The Concept of Corrective Justice in Recent Theories of Tort Law, *Journal of Legal Studies* Vol. 10, N.1 pp. 187-206.

Pagano U. (1985) *Work and Welfare in Economic Theory*. Basil Blackwell, Oxford.

Pagano U. (1991) Property Rights, Asset Specificity, and the Division of Labour under Alternative Capitalist Relations. *Cambridge Journal of Economics*. Vol. 15 No 3. Reprinted in G. Hodgson (1993) *The Economics of Institutions*. Edward Elgar, Cheltenham

Pagano U. (1993) Organizational Equilibria and Institutional Stability. In Bowles S., Gintis H., Gustafson B. eds. *Markets and Democracy*. Cambridge University Press, Cambridge

Pagano U. (1995) Diritto. In Boitani A., Rodano G. eds. *Relazioni pericolose. L'avventura dell'economia nella cultura contemporanea*. Laterza, Bari.

Pagano U., Rowthorn R. (1996) The Competitive Selection of Democratic Firms in a World of Self-Sustaining Institutions in Pagano U, Rowthorn R eds. *Democracy and Efficiency in the Economic Enterprise*. Routledge, London p. 116-145.

Pagano U. (1999) Is Power an Economic Good? Notes on Social Scarcity and the Economics of Positional Goods. In Bowles S., Franzini M., Pagano U. (1999) *The Politics and the Economics of Power*. Routledge, London pp. 63-85.

Pagano U. (1999) The Origin of Organizational Species. Forthcoming in Nicita A, Pagano U eds. *The Evolution of Economic Diversity*, Routledge, London.

Posner R. A. (1981) The Concept of Corrective Justice in Recent Theories of Tort Law. *Journal of Legal Studies* Vol. 10 n. 1.

Posner R. A. (1983) *The Economics of Justice*. Harvard University Press, Cambridge Ma..

Posner R. A. (1993) The New Institutional Economics Meets Law and Economics. *Journal of Institutional and Theoretical Economics* V. 149 N. 1 pp. 73-88.

Robertson D. H. (1928) *The Control of Industry*. Nisbet & Co, London.

- Screpanti E. (1998) *The Fundamental Institutions of Capitalism*. Department of Political Economy. University of Siena.
- Shleifer A. (1998) State versus Private Ownership. *The Journal of Economic Perspectives* V. 12 pp. 133-151.
- Simmonds N. E.(1986) *Central Issues in Jurisprudence. Justice, Law and Rights*. Sweet & Maxwell, London
- Stiglitz J. (1999) Whither Reform? Ten Years of Transition. *Annual Bank Conference on Development Economics*. World Bank. Washington D.C.
- Weimer J., Pape J. C. (1999) A Taxonomy of Systems of Corporate Governance. *Corporate Governance. An International Review*. V. 7 pp. 152-166.
- Wellman C. (1978) A New Conception of Human Rights. In E. Kamenka e A. E. S. Tay *Human Rights* Edward Arnold, London.
- Williamson O. E. (1985) *The Economic Institutions of Capitalism*. The Free Press, New York.
- Williamson O. E. (1993) Transaction Cost Economics Meets Posnerian Law and Economics. *Journal of Institutional and Theoretical Economics* V. 149 N. 1 pp. 99-119.
- Williamson O. E. (1996) *The Mechanisms of Governance*. Oxford University Press, Oxford.
- Williamson O. E.(1994) Evaluating Coase. *The Journal of Economic Perspectives* V. 8 pp. 201-203.
- Zingales L. (1988) Corporate Governance. In Peter Newman (ed.) *The New Palgrave Dictionary of Economics and the Law*. Macmillan, London.