LEGAL ADJUDICATION IN INCOMPLETE MARKETS

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INTRODUCTION

In common law systems, legal adjudication refers to the process through which existing legal rules are applied, or created in the context of judge-made law, so to resolve a given dispute. In practice, the legal adjudication process conveys abstract rules and standards to the specifity of the concrete case, (re)determining the rights and obligations of the involved parties. Theories of adjudication studies how this process should unwind, from devising the fundamental or constitutive explanations for legal rights and obligations (as well as their order) to understanding how the grounds of law should be vehiculated to the concrete case.

While never explicitly framed in jurisprudential terms, the standard prescriptions of law and economics rest on an Dworkinian interpretivist conception of legal adjudication. Interpretivism claims that certain moral principles, in addition to institutional practice (i.e., the actions or practices of political institutions, including judges), play a central role as determinants of a system's rights and obligations. Consistent with the interpretivist approach, law and economics defends the idea that the normative value of a law, policy, etc, is to be judged by its effect in promoting wealth maximization (Posner, 1979, 1985). We reject the wealth maximization aim for well known reasons and prefer the welfarist approach to markets as it is in the Arrow-Debreu analysis. The standard prescriptions of law and economics that serve this maximand in the concrete case rest, however, on a problematic foundation. They rest on the idea,

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albeit implicitly rather than explicitly, that the world in which the prescriptions are meant for is well characterized for the most part as complete markets. We say "for the most part" because many times the prescriptions are remedies for market imperfections such as externalities or asymmetric information.

The standard structure of a prescription is to take a case at common law – one party, for example, complains that another party is damaging her property, or one party complains that one party is failing to live up to a contract – and determine a hypothetical set of circumstances for the case at hand in which it is imagined that the market imperfections of the actual case do not occur. We imagine what the parties would choose under those hypothetical circumstances (Posner, 1979). Then we use the outcome of the hypothetical choices to determine how the actual case should be resolved.

For example, if we take the case where the action of one party imposes an externality on another, we imagine the hypothetical circumstance in which there are no transaction costs and figure out what the parties would have chosen under these enhanced conditions. The Coase theorem suggests that the parties would bargain to an efficient outcome in the absence of transaction costs. The idea then is for the judge to implement the terms that would have been agreed upon by the parties. And the supposition is that these terms would be efficient, that is, promote wealth maximization.[1]

The supposition rests on the assumption that the background conditions of the transaction consist in complete markets. Under this assumption, the case at issue constitutes a kind of unique departure from completeness so that when we imagine the market imperfections away (in this case, externalities and transaction costs), we have complete and competitive conditions. Under these circumstances the resolution is, by the first welfare theorem, efficient. We are looking at complete markets, which have one or two distortions and we see what happens when we get rid of the distortions. The proposed resolution is then one in which we can predict that the outcome is efficient.

The trouble with this method of resolving the dispute is that it rests on a false assumption. The background conditions are never conditions of complete and competitive markets. There are

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[1] See Dworkin 1980 and Shavell and Kaplow, 2004 for arguments against wealth maximization as the basic value. Posner, in 1985, seems to miss the point of the diminishing marginal utility of wealth objection when he claims that focus on wealth will have greater rewards in the long run. The issue is what values are most important and surely the essential medical treatment to the indigent who is willing to pay very little is more important than the superficial medical enhancement to the very wealthy who is willing to pay a lot.

always a multitude of imperfections in the background conditions. The social world we live in is characterized by, from the standpoint of competitive equilibrium analysis, many failures such as externalities, asymmetric information, and market power.

Why does this matter? The problem arises because the local hypothetical improvements in market conditions may not bring about efficient outcomes – fail to import the welfarist principle into legal rules and obligations – when the background conditions are highly imperfect. The first way to see this is by appeal to the theory of the second best (Lipsey and Lancaster, 1956). According to that approach, it is not true, as a general matter, that when a market is characterized by many imperfections, every diminution of market imperfection will produce a more efficient outcome. Sometimes, a decrease in market imperfection will generate an even less desirable outcome from the standpoint of efficiency. Sometimes it is better to introduce a further market imperfection in order to counter other market imperfections.[2]

In this paper we develop a novel interpretivist approach to legal adjudication that retains the welfarist principle of the classic law and economics approach, but recommends a different way of conveying that principle into the legal adjudication process. We do so by developing the following propositions. First, the neoclassic economic approach to the law (i.e., law and economics) rests on an unreflective (and false) presumption that markets are complete except at the margin where adjudication then rectifies the distortion. Second, a consequence of this approach to adjudication is that there is a strong presumption in favor of free markets because any state intervention involves a distortion of the market. Third, adjudication has this character particularly in the private law because the fundamental principle of private law is to realize a minimal ideal of rational cooperation among all the participants as the means to promote welfare, which ideal is realized by perfectly competitive markets. Fourth, actual markets are everywhere incomplete and imperfect and thus do not realize the minimal ideal of cooperation that perfect markets do. As a consequence, fifth, many of the things that make perfect competition valuable are absent from imperfect competition and thus must be supplied by other means. Sixth, to the extent that adjudication attempts to realize the minimal ideal of cooperation in the interactions among persons, it must sometimes work to constrain or replace markets. We will develeop these

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[2] A classic case is that of patents. When firms bear large sunk costs before they start production, competitive markets don't provide the incentives to produce innovation. The way that this problem has been standardly resolved is by creating temporary monopolies over the particular good. Hence, intellectual property, which gives the producer market power, is introduced to overcome another market imperfection.

propositions and supply an illustrative example in the issue whether the adjudication ought to presume a mandatory rule of termination of employment for cause.

The paper proceeds as follows. In section 1 we articulate some basic concepts of efficiency and markets and review general equilibrium results for perfect and complete markets and for imperfect and incomplete markets. We observe that while the results of general equilibrium theory for complete and perfect markets associate them quite strongly with efficiency, the results for incomplete markets are generally quite negative. In section 2 we articulate the conception of a minimum ideal of cooperation that we believe is realized in perfectly competitive and complete markets. This ideal will become useful in thinking about how adjudication should proceed in the context of incomplete markets. In section 3, we illustrate these ideas in the case of the dispute over termination at will and termination for cause in employment contracts. We argue that a mandatory term of for cause termination supplies an essential element of insurance for relatively worse off parties to employment contracts. This illustration also shows that one can employ the idea of complete and competitive markets and the minimal ideal of cooperation that stands behind it to impose restrictions on market activity in the process of legal adjudication. We close with some notes on the account of adjudication that is in the background of our account and, we think, much of law and economics.

1. COMPLETE, INCOMPLETE MARKETS AND EFFICIENCY

In order to make the more general claim we want to make here we must bring in some terminology. Let us first state abstractly the two components of the economic analysis of law that are implicit in the foregoing discussion. One component consists in a conception of the value to be realized by adjudicative activity. The second component consists in a conception of the mechanism by which the value is realized and a conception of how this works. Let us take each in turn.

There are three normative standards that are used in this context: Pareto optimality, constrained Pareto efficiency and Kaldor-Hicks efficiency. A state of affairs is Pareto optimal when, for all the individuals involved, any effort to make one person better off than she is in that state will make some other party worse off. Constrained Pareto efficiency is a weaker standard. An allocation is constrained Pareto efficient when (i) markets are incomplete, (ii) any action by a

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planner such as the government cannot improve the welfare of any of the parties without diminishing that of another party, and (iii) the actions of the planner are constrained in the sense that the planner cannot create new markets. A state of affairs may be constrained Pareto optimal without being Pareto optimal because market imperfections are barriers to the parties and the planner achieving this. A state of affairs is constrained Pareto inefficient when it is possible for the government to make at least some better off without making anyone worse off by means of some redistributive or prohibitive activity or by inducing some to engage in specific trades in the existing markets. Last, Kaldor-Hicks efficiency consists in the fact that one state of affairs is better than another even if not Pareto superior. This is the case when transferring some of the gains to some persons to those who lost can make at least some people better off and no one worse off. This might hold even if the transfer never takes place. Kaldor-Hicks efficiency allows us to speak of efficiency gains from a set of activities even when some lose and some gain from those activities.

The second relevant component of the economic analysis of law consists in a conception of the appropriate mechanism for realizing the above conceptions of value. And here we are thinking of markets operating on their own, and markets operating only with a significant amount of intervention by governments. Indeed, the two fundamental theorems of welfare economics suggest a tight bond between the mechanism of perfectly competitive and complete markets and the value of Pareto optimality. These theorems give rigorous contemporary expression to Adam Smith's idea that a system of perfect liberty is guided towards the common interest by an invisible hand and without the need for government intervention.

The basic properties of complete and competitive markets in the Arrow-Debreu approach are that there are a very large number of consumers and producers for different goods, there is complete information about all the agents in the market (there may still be uncertainty about exogenous shocks), there are no transaction costs, no externalities, and both production functions and consumption functions are convex. Further, there are markets for every possible state of the world in the present and future, so that participants can transfer income costlessly to any future state. These lead to a situation in which there is no market power and every one is a price taker. The theorems show that in perfectly competitive and complete markets there exists a Pareto optimal equilibrium under which there exists a price for each of the goods in the economy such that the quantity demanded of each of those goods is equal to the quantity supplied.There is no

waste in the system. Instead, all the factors of productions earn a return that is equal to their marginal product.[3]

Under the assumption of complete and perfectly competitive markets, a key thesis of orthodox law and economics is that markets ought to be insulated from state intervention, absent a clear and identifiable externality. The idea has been that we ought to let markets do their magic without interference from the state. This will produce efficient outcomes. Then, if one is so inclined, one can redistribute some of the earnings of markets so as to produce a more egalitarian outcome (Posner, 1979).[4] Thus the key here is to make a sharp division between institutions that realize efficient outcomes and institutions that realize equitable outcomes. First, we insulate markets from government then we use government to redistribute the goods that are efficiently produced by the market (if we are so inclined). This would be in contrast to a strategy in which we regulate and shape markets to realize some combination of efficiency and equality. The latter strategy just kills the goose that lays the golden egg. We call this the "insulation strategy." In one recent treatment of this approach the idea is to let markets realize efficiency and then allow government to realize fairness concerning the distribution of the bounty (Kaplow and Shavell 2004).

Within this insulation strategy, law and economics then advocates for a conception of legal adjudication in private law guided by a kind of restorative principle. The restoration proceeds by means of imagining a hypothetical market which does not experience any local distortions. This adjudication is meant to restore the efficiency of the market by eliminating local distortions. We call this the "market restoration strategy."

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[3] It should be noted however, that even here the results are not all positive. There has been some difficulty in demonstrating the uniqueness and the stability of the equilibrium even in perfectly competitive and complete markets (Sonnenschein, 1972). The most basic problem here is that we cannot infer the properties of the aggregate (excess) demand from the individual (excess) demand (Sonnenschein, 1972). This means, for example, that if there is a unique equilibrium for the individual (excess) demand function, at the aggregate level, a multiplicity of equilibria will be possible. This has two implications that are important. One, general equilibrium analysis may not be able to predict the set of prices that are in equilibrium. Two, there may be more than one efficient outcome, and these outcomes may be evaluable in terms of other standards such as distributive fairness. Our focus is different. We have been pressing the familiar observations that once we focus on the world we live in and all the ways in which actual markets fail to live up to the conditions of the Arrow-Debreu theorems, we see this tight bond between markets and efficiency quite seriously loosened.

[4] We see this to some degree even in egalitarian thinkers such as Rawls (in 1993) and Dworkin (in 1986, and 2000).

Our view is that the results of general equilibrium of incomplete markets undermine first the confidence that actual markets are efficient, second, undermine the strategy of insulation and, third, undermine the usual market restoration strategy used in these contexts.

In general when markets are incomplete, the agents in the economy cannot transfer (or can transfer only limitedly) their income across future and uncertain states of the world, leading them to be unprotected against unforeseen contingencies. Sources of market incompleteness include: market power, externalities, public goods, asymmetric information (i.e., adverse selection and moral hazard), costly market organization (i.e., transaction costs), and the impossibility of writing complete contracts (Laffont, 1989). More generally, general equilibrium analysis of incomplete markets has shown that these markets do not produce Pareto optimal or even constrained Pareto optimal outcomes except under extremely restrictive and unlikely conditions.

This analysis throws some very cold water on two ideas: One, it calls into question the idea that one will achieve efficient outcomes when one takes away one or two market imperfections in a context in which there are many imperfections as well as missing markets. We simply cannot rely on the thought that efficiency is the result of these local interventions. There is no theoretical support for this reliance (Geneakoplos, 1990; Laffont, 1989). Two, there is no theoretical support for the thesis that the government, through its regulatory apparatus, cannot improve the situation. Even constrained Pareto efficiency is not to be expected from imperfect and incomplete markets. What we have here is a general skepticism about the idea that markets can produce efficient outcomes unaided by outside agents. And this skepticism extends to the idea that we cannot produce those efficient outcomes just by making marginal improvements to the markets in the direction of greater market perfection (Geneakoplos, 1990).

Under these limitations, our thesis is that we can only rely on piecemeal and partially empirically grounded observations about what works to produce valuable outcomes and what doesn't. And, in addition, once we see that Pareto efficiency is not to be achieved by markets, and that this will recommend interference with markets in many different ways, the strategy that we must insulate markets from state activity must be abandoned. Further, once the insulation strategy is seen to be problematic, there are no aprioristic reason to exclude many other values such as some kind of egalitarian distribution of the goods of a set of transactions. If we don't think of markets as inherently efficient and we must interfere with them to make them more

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efficient, it isn't clear why we shouldn't use other values to evaluate the functioning of markets as well.

2. COMPLETE MARKETS AND RATIONAL COOPERATION

Our critique of orthodox law and economics is meant to be internal. We hence propose to elaborate standards for the assessment of incomplete markets that can be derived from an understanding of complete markets. Indeed, the Arrow-Debreu theorems are of great importance because they lay out certain implications for markets that can have normative significance. Nevertheless, people often take for granted basic features of complete markets as background features of *all* markets. And we think that it is because these features are taken for granted when analyzing markets generally that unaided markets normally have the prestige that they have. The trouble is that incomplete markets often do not have these basic features and so some of the most important presuppositions behind the generally positive approval of unaided markets do not obtain. This does not mean that markets must be abandoned when they are incomplete, it means that we must not expect them to work well without the aid of society as a whole.

Let us try to understand the basic appeal of the perfectly competitive and complete market. We think that the underlying ideal behind complete markets is the ideal of rational cooperation among persons in the production and exchange of private goods. Rational cooperation involves a combination of actions, or something brought about by a combination of actions, which produces something that is regarded as desirable by each agent according to her own preferences (McMahon, 2005). Viewed through this lens, the Arrow-Debreu theorems can be regarded as providing a full characterization of rational cooperation. In complete markets, persons exchange and produce for each other in a way that is without any impediment and consequently in a way that is without any waste so that the desires of persons are maximally satisfied and that all resources are put to their best use. The combination of the agent's actions finalized to the productions of goods occurs without impediment in the sense that there are no limitations on information and no transaction costs in the involved activities. There are no externalities so that no one gets things that they do not choose. Most importantly, no one possesses market power because everyone is a price taker. As a consequence, the interactions are determined only by the preferences of the participants subject to the limitations of their own

resources. There are limited resources so that part of the point of the system of cooperation is to make the best use of those limited resources. Finally, the outcome is Pareto Optimal so that resources are not wasted.

Complete markets are competitive markets but we need not think of them as competitive in any destructive way. It is true that each participant is conceived of as self-interested at least with regard to all the other participants. But, markets are not conceived here as tournaments or wars in which there are winners and losers. The competition consists in each person trying to advance her interests by offering commodities or services to others that they want and at the lowest possible price. When someone is beaten out in competition because they cannot produce at the lowest price, she simply turns costlessly to another enterprise where she is able to advance her interests by producing what others want at the lowest price. And all of this takes place immediately because information is not limited.

Why call this a system of cooperation when no one is concerned with anyone else? We want to say that the system as a whole involves a kind of rational cooperation because the activities of all persons are organized so as to be maximally satisfying of human wants. And they do this while only imposing burdens that people desire to impose on themselves given their preferences. Their behavior together could even manifest a kind of collective agency in that they know that by each pursuing their own interest under these conditions everyone is benefitted (McMahon 2005). But their behavior has a collective dimension as well because markets must have well defined property and exchange rights. These must be common knowledge and commonly adhered to. So, the rules of the system as a whole have to be sustained by all the participants.[5] Each person participates voluntarily in individual exchanges and as a member of a collective in sustaining the conditions of complete markets.

What is it that makes this scheme attractive? First, it is efficient. Resources are not wasted and people's rational desires are satisfied. But there are other components. Second, all exchange is voluntary against the minimally egalitarian background conditions that follow. Third, it has some minimally egalitarian characteristics in that no one possesses market power, everyone benefits and everyone has an opportunity to occupy any social position. No one dominates anyone else. No one is sacrificed for others. The initial distribution of endowments

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[5] Furthermore, to the extent that the markets can produce legitimate outcomes only if the initial endowments are properly distributed, the initial distribution must also be collectively established.

does not preclude the flourishing of talents. Furthermore, among normally cooperating adults, everyone can take care of themselves. They can advance resources to future contingent states through insurance against shocks to the system. This is an especially important aspect of the Arrow-Debreu theorems. Assuming a reasonable level of risk aversion, each person is fully capable of insuring themselves against future shocks. Since there are no information asymmetries, the usual problems of moral hazard and adverse selection that impede effective insurance, particularly for the worse off, do not hold. Everyone has the capacity to protect themselves against shocks by transferring income to future states. This ability of self-protection through insurance is part of what enables a person to engage in this rational cooperation. When some have market power those who have little access to insurance can be exploited in contrast to participants in cooperation. When there is no market power and there is unlimited access to insurance the possibility of exploitation is eliminated.[6]

Our conception of complete and perfectly competitive markets is in contrast to that of David Gauthier's idea of markets as morally free zones, in which persons are as free as Robinson Crusoe (Gauthier, 1986). Our idea is that perfect markets are a kind of partial moral ideal in the cooperative production of consumption goods. They realize an ideal of interaction in this process.

To be clear, the idea of complete markets is not a complete ideal of social cooperation because it needs, at least, to be supplemented by an appropriate initial distribution of endowments. Furthermore, complete markets make no provision for variation in talents and handicaps. So, a system of complete markets is a minimal form of objective social cooperation but it is not a characterization of a completely just society. [7] It would have to be complemented by some kind of distributive principle.

We reinforce the idea that perfectly competitive and complete markets involve rational cooperation by pointing to the results of cooperative game theory. These results demonstrate that the core - the solution concept that assigns to each cooperative game the set of payoffs that no

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[6] We are here assuming that a sufficient condition of exploitation is that one exploits another when the first has market power and the other doesn't and this enables the first to capture almost all of the surplus of their cooperation.

[7] It does not satisfy anything like the difference principle. The less talented will do less well than others and there is no mechanism guaranteeing that they are as well off as possible. Moreover, there is no mutual concern or expression of mutual concern. Likewise, since it is compatible with an inequality of initial endowments it can generate arbitrarily unequal outcomes. And it does not tell us how the returns to capital are to be distributed (Sen, 1985). Indeed, it is quite defective in some circumstances as with persons who are severely disabled. It can only benefit those who are capable of benefitting others. Thus it is not the whole of an ideal of just social cooperation.

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coalition can improve upon - is one in which the surplus of production is distributed in accordance with the marginal contributions of the agents, while also showing that any general equilibrium allocation is a core allocation (Mas-Colell, Whinston and Green, 1995). This conclusion provides mathematical confirmation to the idea that rational cooperation is foundational to perfect and competitive markets.

In this paper we propose to think of the minimal ideal of rational cooperation as the basic principle that should guide legal adjudication in private law. Albeit implicitly, this ideal also stands behind the law and economics approach as the means, mediated by complete markets, to pursue the welfares of all the participants. But the ideal of rational cooperation becomes even more important when one recognizes that complete markets do not actually exist so that we need to move to a higher level of abstract normative principle. We do this, in turn, by identifying the most important normative elements of complete markets and then using these ideas to evaluate incomplete markets. The ideal of cooperation thus functions as a principle in the Dworkinian sense (Dworkin, 1986). When markets are incomplete and private law leaves open uncertainties, legal adjudication must employ the ideal of rational cooperation as the central interpretive principle.

3. THE IMPORT OF THE DIVERGENCE BETWEEN COMPLETE AND INCOMPLETE MARKETS

We think that there are three basic aspects of complete markets that are worth pointing to and considering in contrasting complete and incomplete markets. The three main aspects are: the consumer appropriation of the entire surplus, the undistorted and maximal availability of insurance, and the independence of efficiency and distributive concerns and welfarism.

First, the consumer appropriation of the entire surplus can be appreciated by noting that in the Arrow-Debreu analysis, the effect of complete markets is that all the surplus goes to the consumers. Profits go to zero under complete markets and consumers reap the full benefit of production. This establishes an important aspiration for markets generally. In the context of incomplete markets, however, some part of the surplus does not go to consumers. This means that some of the wealth in the society is tied up in hoarding and other suboptimal activities. This is most likely to harm the worse off members of the society. If incomplete markets tend to channel resources to non-productive uses and stop the product of society from going to

consumers, there may be reason to intervene in markets to ensure that resources are not ending up in non-productive places and are being channeled to people who can benefit from them.

Second, the insurance benchmark can be seen in the Arrow Debreu analysis because in complete markets all persons can protect themselves against future uncertainty as they have access to insurance. Furthermore, there is no credit rationing and even the worst off have the ability to get insurance. This is achieved because there is no cost in transferring income from the present to the future for the purpose of smoothing access to income across states and over time.

Under incomplete markets, however, there is no such access and insurance can be quite difficult to procure. This has two effects: a setback to welfare and a setback to investment. First, under reasonable assumptions of risk aversion (i.e., where higher income in one state does not perfectly compensate lower income in another state), the lack of perfect consumption insurance may reduce welfare, as it may result in consumers having insufficient income in some states of the world. Second, without perfect insurance, consumers may be unable to make efficient investment decisions, as consumption decisions are not separated from investment decisions (Fisher separation theorem). This is because under these conditions, consumers will not make investment decisions just to maximize the expected value of an investment, but consumer decision-making decisions will be biased by their consumption needs. The problem is that optimal investment must be risk neutral, while consumption is risk averse. If a person is not insured against future bad contingencies, they will take a risk averse approach to investment and thus it will be suboptimal. Hence, the absence of perfect consumption insurance sets back the welfare of participants in the market. In particular, the welfare of the worse off are likely to be undermined by this factor.

When incomplete markets fail to provide the access to insurance that normally risk averse persons desire, there may be reason for governments to provide that insurance to enhance the welfares of persons and to enable them to engage in more optimal investment, such as the development of skills and other human capital. Government can offer insurance in a variety of ways and we will discuss one major example below. In complete markets, individuals can take care of contingencies by insuring themselves without cost, but they do not have that same ability in incomplete markets. People can be quite seriously harmed by incomplete market activity. Again, these problems affect the worse off members of society more than others.

Third, complete markets tend to a complete separation of concerns for distribution and concerns for efficiency. Efficiency can be achieved under any distribution of goods. But this is not so in incomplete markets. In incomplete markets, sometimes a very unequal distribution of goods can lead to suboptimal outcomes.

Stiglitz provides a useful example, which focuses on wages, to illustrate this case. With complete markets, as wages decrease, the demand for labor increases, while the supply decreases, and this process continues until wages are bid up or down to the level where supply equals demand. But consider now the more realistic case with asymmetric information (a source of market incompleteness). In general, when there is asymmetric information, agents can infer quality (which they cannot directly observe) by looking at prices. This means, however, that when a firm observes lower wages, other firms might infer that the workers who offer their services at those wages are less productive. As a result, the firm may fail to hire lower-wage workers, as the firm anticipates that the cost per effective unit of labor will actually be higher with the lower-wage workers. This implies that whether the economy is Pareto efficient may depend on the distribution of wealth under incomplete markets with asymmetric information (Stiglitz, 1987).

4. ILLUSTRATION: INCOMPLETE MARKETS AND TERMINATION

In order to illustrate some of the features above, and particularly the importance of insurance in incomplete markets as well as the importance of distribution to efficiency, we consider here the contrast between employment at will and for cause. Normally the law and economics approach advocates for an employment at will doctrine with the possibility that both parties can agree to a termination for cause provision in their contract. We argue that a mandatory term of for-cause termination may be the correct adjudicatory stance to take in the case of termination of a person's job. This requirement is derived from the need to supply insurance against arbitrary dismissal, which insurance would be provided in a complete market but is often unavailable in an incomplete market. The failure of the possibility of insurance for

the employee thus changes the relationship between employer and employee from one of cooperation to one of exploitation, calling for a remedial action.

Consider the following example. Frank, or the "employer," hires John, or the "employee," to perform some tasks in his firm. They formally agree only on the number of hours John will work per week and John's weekly salary. Thus, from an economic perspective, John's employment contract is highly incomplete, as it does not provide for a state contingent plan of actions (i.e., under which for any possible action x, a certain payoff y is specified). After a period of time, Frank terminates John's employment contract and John sues Frank claiming that termination was not for-cause and that his contract includes an implied term of for-cause termination.

The adjudication problem we explore here is to determine whether, as a normative matter, John's employment contract should indeed be interpreted as implying a term of for-cause termination or rather termination should simply be at will.

Termination with cause, as we understand it, implies that a person's employment may be terminated only for a good reason. That good reason must be specified somewhere in the contract or in the rules of the firm or must be a matter of common sense. In this sense, underperformance in the task may be a cause for termination as long as it is at least fairly clear what the standards of performance are and there is reasonably good evidence for it. A contract with the provision of termination with cause specifies certain remedies for failure to terminate for good reason. These can range from a property rule (i.e., reinstatement of a person in the job) to a liability rule (i.e., monetary damages that have to be paid by the violator to the employee). We will simplify the discussion here and proceed as if these are equivalent.

As we understand it, for the most part in positive law, termination with cause only constrains the employer and does not constrain the employee who retains a kind of right of termination at will. The doctrine of termination at will, in contrast, is a kind of symmetrical relation in which each of the parties may terminate at will. As such, termination with cause operates as a kind of insurance of the employee against the arbitrary actions of the employer. As a normative matter, it makes sense to protect the employee in most circumstances if we are right that for-cause termination is a kind of insurance against arbitrary treatment. Normally it is the employee who needs the protection, not the large firm. To be sure, there may be some

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circumstances in which the firm may need insurance for employees with a great deal of bargaining power such as the CEO of a corporation.

As an aside, we observe that the case of termination in employment contracts is just one concrete application of the more general situation in which an adjudicator (or regulator) is required to decide on a protection term (in this case, the for-cause clause) that is meant to provide a party (here the employee) with some form of insurance against unforeseen circumstances – an insurance that, as we have seen above, incomplete markets cannot provide at the equilibrium. Provision of insurance is thus efficiency promoting and cooperation enhancing. This is also an instance in which distribution can play a role in bringing about efficiency in incomplete markets. Other applications include: (i) good faith terms and contextual (rather than literal) interpretation in contracts; (iii) some forms of strict liability in torts; and (iv) minimum income and unemployment wage.

The Arguments for Termination at Will

We start by reviewing the orthodox law and economics approach. This approach argues that employment contracts should not include an implied mandatory term of termination for cause, based on the following arguments:

a) under the existence of competitive and complete markets, [8] there is no risk that employers may opportunistically exploit (or even just threaten opportunistically to exploit) termination at will;

b) including a mandatory term of termination for cause would reduce the parties' gains from trade (Epstein, 1984; Posner, 2014; Ayres and Schwab, 1999);

c) only termination at will can provide the employee-agent with incentives to exert effort (Epstein, 1984);

d) termination for cause implies a higher ex-ante cost of litigation (Epstein, 1984).

e) related to these earlier arguments, it is argued that the reason why termination at will is the normal mode of contract shows that it is more efficient than termination for cause (Posner, 2014).

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[8] When markets are complete, they also are competitive as market power is a source of incompleteness. But markets can be competitive while also being incomplete, if the source of incompleteness is different from market power.

The ensuing discussion will examine each of these arguments, showing that they all are economically wanting.

a. Termination and Complete Markets

The main law and economics' argument – that complete markets eliminate the risk of employer opportunism in the exercise of termination (at will) – relies on the assumption that if Frank, in our hypothetical, was to behave opportunistically in terminating John, Frank's firm would end up without workers (or facing some other form of retribution), as workers at the equilibrium would anticipate the employer's opportunism either by asking for a higher wage or even rejecting any employment offer from Frank's firm (Epstein, 1984). Under this assumption, employment contracts would only be terminated for cause at the equilibrium, negating the need for a mandatory rule of for cause termination.

Under this argument, a sort of indifference result logically follows, although the law and economics literature fails to explicitly articulate this result. Indeed, if under complete markets no employer would ever terminate (or threaten to terminate) an employee without cause, the price of a termination for-cause provision (or rule) would be zero. Given this indifference result, a termination-for-cause provision would imply no additional cost for the employer, but also no incremental utility for the employee.[9] This means, in turn, that under the hypothesis of complete markets, there exists no reason either in favor or against the adoption of an implied term of for-cause termination.[10]

Under the different assumption that markets are incomplete, the question, however, arises of whether the law and economics defense of termination at will is still valid from an efficiency perspective. We address this issue below.

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[9] There might be one special circumstance in which this would not be a matter of indifference: if people generally have some kind of preference for domination in their rankings. In that case, employers would attempt to satisfy that preference and employees would have no place to go to avoid it. Then for cause termination would impose a cost on employers and would protect employees from arbitrary termination. It would impose a cost on employers because they (like everyone else) have a taste for domination, which can be more easily realized in termination at will. Employers who do engage in arbitrary dismissals may not lose all their employees if all employers are like this. This is an unusual preference in the context of economic theory in which people's preferences don't have much to do with each other. But this preference does not require that utility functions are interdependent. There may be some reason for excluding this interest in domination in a normative analysis of how institutions should be structured. But we are not pursuing these matters here.

[10] Of course, this conclusion relies on the existence of a stable competitive equilibrium in the labor market. If the market is not stable and can move to a non-competitive (or less competitive) equilibrium – for example because some market power may later emerge – this conclusion may no longer hold.

b. Termination and Incomplete Markets

While the law and economics literature does not explicitly take into account the distinction between complete and incomplete markets, their subordinate argument against the adoption of a mandatory provision of termination for cause is that such a provision would restrict the domain of contracting (Epstein, 1984). That is, a mandatory rule of termination for cause would not allow parties to price differently the alternative contractual arrangement of termination at will – for example providing for the combination of a higher salary and termination at will or a lower salary and termination for cause.

On the standard accounts, there is a cost to the employer of being in a contract with termination with cause. More concretely, in our hypothetical, Frank will offer such a contract only with a reduction in John's monetary wage, so as to recoup the cost. John, in turn, might prefer giving up termination for-cause for a higher wage, or vice versa (Ayres and Schwab, 1999). Under this argument, excluding a mandatory term of termination for cause would thus increase welfare because there would be gains from trading around different termination provisions. It all depends on the utilities of each of the parties regarding the cost of extending the termination for cause contract and the amount the employee is willing to pay for it. To the extent that there is significant variation among persons, different kinds of contracts will be rationally chosen by different people.

The truthfulness of the "gains-from-trade proposition," however, relies on the validity of three intertwined assumptions:

(i)The employee has bargaining power to extract part of the surplus from the negotiation around the for-cause termination provision;

(ii) The employee can obtain a more efficient insurance (i.e., protection) than she could obtain by implicitly paying for the for-cause termination; and

(iii) The for-cause termination provision is a net cost for the employer.

Assumption (i), however, depends on several economic and institutional conditions. Among others, the conditions include: (1) the general level of unemployment, because a higher level of unemployment gives the employer the power to make a take-it-or-leave-it offer to the employee; (2) the reservation wage level, as the bargaining power of an employee depends on his outside option. So, for example, under the Kalai-Smorodinsky solution, if the outside option is

zero (i.e., as when unemployment is extreme), the employee will be unable to extract any surplus from the bargaining game around termination; (3) the level of unionization of an industry, as when labor is not unionized, the employer is more likely to acquire a monopoly power upon a higher level of unemployment.

To be sure, one might just think that the employee needs to figure out how much of his wage is to be paid in monetary terms and how much in terms of the for-cause provision. But there is a difficulty here. To take an extreme example, the employee may be in a position of zero bargaining power because his only alternative is loss of basic necessities such as housing or food or clothing. The total wage offered may simply be a subsistence wage. In that case, if the for-cause provision costs anything for him it is too much. Of course, the for-cause provision may be very important to him, because it provides him insurance against arbitrary termination in the future, but it is not worth any of his wage because all that is necessary to his subsistence. If she can't subsist, being guaranteed that she will be fired only for cause does not help her much.

Talk of gains from trade thus conceals the fact that under similar circumstances the employer can appropriate nearly all of the surplus and the employee cannot appropriate any more of it than is necessary to survival. The worst-off employees are simply stuck with what they have. In these situations, a for-cause requirement does not obviously introduce any inefficiency, it simply redistributes some of the surplus of the arrangement in a way that is most likely highly utility enhancing. What's more, the for-cause contract can actually help in these situations because it diminishes the bargaining power of the employer by making it more difficult to threaten employees with termination.[11]

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[11] A number of empirical studies suggest is that not only does termination for cause not decrease the wages of employees as the standard approach assumes, it often increases the wages of the employees because it increases the bargaining power of the employees (Boeri and van Ours, 2014). Other studies have suggested that the replacement of termination for cause with termination at will does not increase the wages of the employees though it does increase the sales to employee ratio. This suggests again that the employer captures the whole of the surplus arising from termination at will. (Martins, 2009). Hence the relationship between for cause termination and wages is not inverse as the law and economics approach suggests it should be and sometimes they are indeed positively correlated. This does suggest that termination for cause functions very differently in incomplete markets than is thought. It can itself involve some capture of the surplus and it can also enable employees to capture more of the surplus. One further note here relates to the focus on wealth in the standard law and economic approaches. As we noted above, one prominent study argues that replacement of termination for cause with termination at will did not increase wages or employment though it did increase the revenue of firms. (Martins, 2009) The inference was that employment at will got employees to put in more effort. This implies that there is a net gain to employers and a loss to employees. They gain nothing in material goods but must exert more effort. This is a welfare loss that needs to be taken into account. It implies that employment at will involves a kind of net transfer of welfare from employees to employers. This is very far from the picture of the law and economics approach.

The validity of assumption (ii) also needs to be analyzed against the underlying institutional and market conditions. Preliminarily, it is worth remarking that in a context of incomplete markets, markets cannot provide perfect insurance to the agents in the economy through the trading of Arrow-Debreu (A-D) securities. In this context, there are then two ways in which insurance against arbitrary termination could be issued that is not in the form of termination for cause provisions. And both of them seem less efficient in many circumstances than the insurance provided by a mandatory for cause rule. One, it could be argued that even in markets that are incomplete in some dimensions, there could exist an (incomplete) set of A-D securities that can transfer income across states for at will termination more efficiently than for termination for-cause. But this argument is unlikely to hold, as it seems unreasonable to assume the existence of a market where the employee can buy protection against a contingency (i.e., termination at will) that is in the direct control of the employer.

The problem is that the level of protection that could be bought on the open market would be more expensive than the one imposed by means of for cause contracts. First of all for-cause termination requirements deter the employer from arbitrary termination so the payouts would be less frequent. Second, the employer has local refined knowledge of what constitutes arbitrary termination, while an insurance market might not have such knowledge in incomplete markets. This reasoning may not hold however with small employers that are not capable of spreading risk. In such cases we need to trade off the economic gain of spreading the risk against the higher information cost. In conclusion, there is reason to think that in incomplete markets the imposition of for cause termination is a more efficient form of insurance than what employees can secure for themselves on an open market.

An alternative could be welfare state protection. Under this alternative, the employee would receive protection against arbitrary termination in the form of, for example, a government unemployment wage. For this alternative to be viable, however, one needs to assume that government protection is more efficient than the protection the employee receives under a rule of mandatory termination for cause. But this assumption is, again, unlikely to hold, as one can reasonably assume that an employer can count on local information on the employment

transaction in providing protection through termination for cause, information that is unlikely to be reflected in government protection.[12]

The foregoing discussion points to a fundamental contradiction in the law and economics approach to termination in employment contracts: on the one hand, only when markets are incomplete, there would be room for bargaining over for-cause termination (i.e., there would be potential gains from trading around termination) but, on the other hand, when markets are incomplete, for-cause termination seems to be the most efficient form of protection.

The above conclusion does not exclude that a mandatory rule of termination for cause might be undesirable under some specific, exceptional circumstances. Consider, for example, the case of a corporation hiring a CEO. In this case, it is realistic both to assume that the hiring corporation and the prospective CEO share similar bargaining power and that the CEO has access to alternative markets to obtain insurance (i.e., transfer income) against (i.e., across) future states. That is, both assumption (i) and (ii) above are likely to be verified in CEO employment contracts. It would be wrong, however, to generalize the CEO case to the entire universe of a firm's employees so to derive normative implications, as the law and economics approach implicitly seems to do. In general, when market are incomplete, assumption (i) and (ii) are unlikely to hold, so that a rule of mandatory termination for cause seems to be the most efficient remedy against opportunistic termination.

There is one last observation to be made here, which is that it is not clear that the initial assumption of cost to the employer can be maintained. There clearly is some cost to the employer in having to deal with complaints about arbitrary termination. But there may be net benefits from a for cause termination provision. Two come to mind. One is that if an employee is assured that she will not be fired except on the basis of a good reason relating to her work, this may inspire the employee to make more of a long-term commitment to the firm. She may make

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[12] As an aside, it is worth observing that the conclusion that the protection provided by a rule of termination for cause is superior to other available insurance mechanisms in a context of incomplete markets is similar to the argument made in tort law that liability should lie on the cheapest cost avoider (Calabresi, 1970). That is, generally speaking, the party with the lowest cost of insurance – in our context, the employer – should also be the party providing insurance. It is also worth observing that if the validity of assumption (ii) – that the employee can obtain more efficient insurance (i.e., protection) than under a for-cause termination – is undermined, this could also undermine the validity of assumption (i) – that the employee has sufficient bargaining power to extract part of the surplus from the negotiation around termination. Indeed, if the employee lacks insurance against future unemployment, this is likely to reduce her bargaining power (reducing her outside option), potentially up to the point where the employee may be willing to accept even exploitative conditions.

more human capital investments in her work. Opportunism reduces personal investment because the agent anticipates the ex-post expropriation at the renegotiation stage. This is the classic hold-up problem, which arises under incomplete contracts (as a source of market incompletness). If she is uncertain of her job tenure because her employer can act capriciously, she may be less committed. Two, employment at will makes salient the idea that holding on to one's job may not depend on the quality of one's work. It may depend on one's capacity to flatter one's employer or other non-job related activities. Thus, it may well be that the productivity of employees increases with the mandatory for-cause rule.

Now one might wonder why more employers don't prefer mandatory for-cause rules. This isn't clear. Perhaps there is a time inconsistency problem here. The benefits of the for-cause rule are long term benefits while in the short term, there may seem to be a benefit to having maximum flexibility. Or perhaps the employers do not like employment for cause because it gives bargaining power to employers. This would be a kind of cost but not to the firm itself but rather it would involve a different distribution of the surplus of the firm between employees and employers.

c. Termination and Moral Hazard

Law and economics defends yet another argument against a rule of termination for cause, one that does not generally rely on the underlying structure of the economy (i.e., market completeness), but rests on the view that moral hazard (i.e., a form of asymmetric information) is the central problem of employment relationships. As applied to our example, the risk of moral hazard arises because John's actions are not observable (and hence not contractible)[13] by Frank, so that John can take actions in his own interest rather than the interest of Frank (e.g., shirking or extracting of private benefits). Giving Frank the right to terminate John's contract at will would be the only way to provide John with the right incentives to perform, i.e., not deviate from the actions that can maximize Frank's output. This is because under a clause of termination at will, Frank can always implicitly threaten John to terminate the contract in the next period if John's observable performance (the output) is not high enough.

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[13] Non-contractible actions are a source of incomplete markets.

There are two major criticisms of this argument. The first criticism is that there is no objective reason for preferring an incentive strategy where Frank provides John with a negative payoff if John's performance is below his expectations (as it occurs with a termination at will clause) to one where Frank pays John a contingent positive payoff if John's performance does meet his expectations (or even to a strategy that combines the preceding ones, i.e., negative payoffs upon underperformance and positive payoffs upon exact performance). The difference between these two strategies is not necessarily a matter of efficiency but of the distribution of the surplus of the firm, that is the case, for example, when the employee's marginal utility of money is equal to the employer's marginal product of money. Further, in order to be effective, the negative payoff strategy requires that John suffers a cost upon termination. But this also requires that the labor market reacts to John's termination by employing him at a future lower wage, a wage that under perfect market conditions should reflect the lower performance from his previous employment. However, if the market is not competitive and there is some level of unemployment, under this strategy John could end up being excessively punished upon termination, relative to his under effort.

The second criticism focuses more directly on underlying labor market conditions, pointing out that when this market is incomplete, Frank could enjoy enough bargaining power to be able to extract all the surplus from John. This could happen, for example, under conditions of relatively high unemployment and correspondingly low outside options, which Frank could exploit to require an increasingly high level of effort from John at the same wage. In similar circumstances, it is apparent that a clause of termination at will would work as a complementary legal device allowing Frank to exploit his market power against John. We can see that this too could imply a loss of efficiency when we consider the Stiglitz argument that lowering the wage can create adverse selection as the market can wrongly infer the employee's quality from the wage.

d. Termination and Litigation Costs

The final law and economics argument against a rule of termination for cause rests on the expected litigation costs of such a rule. Indeed, because the cause of termination needs to be identified by a third-party adjudicator, the parties would be more likely to end up litigating the

case under a termination for cause rule. At the equilibrium, this would both inject uncertainty in employment relationships and increase the expected social costs of termination.

Again, two major criticisms stand against this argument. First, parties would only litigate the case if they disagree on the termination outcome and are incapable of settling the issue. This necessarily presupposes the existence of incomplete markets (for under the assumption of complete markets, parties would have anticipated any problematic contingency in contract). But under incomplete markets, which cannot provide efficient allocations, it seems desirable that the final allocation is determined by an alternative mechanism, such as judicial adjudication. Viewed through this lens, the increased litigation costs that may be triggered by a rule of termination for cause may be the necessary price to pay to avoid the greater inefficiencies of incomplete markets. Law and economics, however, overlooks this tradeoff. and proposes leaving all the power with the employer in order to lower only one set of costs that are actually involved in employment relationship, litigation costs. But this is similar to saying that dictatorship is preferable to democracy because the former saves the costs of enforcing citizens' rights.

Second, under the assumption that part of the increased litigation cost implied by a rule of termination for cause are attributable to opportunistic behavior, these costs could be reduced by providing for retribution of the opportunistic party or other mechanisms that can discourage opportunistic behaviors and induce parties to settle.

To conclude, when we look at employment at will and employment for cause there is little in the way of clear argument that in the context of incomplete markets, employment for cause will be less efficient than employment at will. The reason for this is that employment for cause can provide a kind of insurance that is usually not accessible to ordinary employees in incomplete markets. The principal effect of employment for cause seems to be an enhancement of the bargaining power of employees and an increase in their ability to capture the surplus of production. To the question why is employment for cause not present very much, the answer is that it is not present for ordinary employees because they suffer from a lack of bargaining power and because employers take it as a cost not to the overall value of the firm but to their share of the surplus of the firm. Indeed we see employment for cause much more in employment relations in which the employees have more bargaining power to start with. To the extent that employment at will fails to secure the kind of insurance present in complete markets, which

insurance is part of the ideal of rational cooperation, employment at will threatens to turn the system of cooperation into one in part of exploitation without any clear gain in efficiency. Hence, the cooperative ideal that animates the concern for free markets gives us reason to say that adjudication ought to support employment with an implicit for cause termination condition.

In our estimate, an implicit term of termination for cause ought to be applied by judges who are concerned with implementing the ideal of rational cooperation to the extent possible in the context of incomplete markets and for individuals with relatively low access to insurance. The main device we see for implementing this is the requirement of termination for cause for those in a relatively weak position, which supplies the necessary insurance. To be sure, this imposes a kind of cost, which is a reduction of the options employers face. And so this might be thought to reduce one element in the ideal of rational cooperation. But in our view, the reduction in options is not a very large cost because that option involves treating employees in an exploitative way, i.e. the employer exercising market power to capture a highly disproportionate share of the surplus. It is thus not clear that the loss of this option can be thought of as a loss to the ideal of rational cooperation. Furthermore, to the extent that termination for cause does not reduce efficiency but merely changes the distribution of the surplus in the direction of the worse off, it seems that this too should be regarded as a gain from the standpoint of the ideal of rational cooperation.

CONCLUSION: ADJUDICATION AS RESTORATION OF COOPERATION

In our view the central, albeit unspoken, principle of the law and economics approach has been to guide adjudication in private law contexts under an ideal of rational cooperation, conceived as a means to the achievement of wealth maximization. However, the orthodox law and economics approach tends to do this by misunderstanding actual markets as complete in all but the cases at hand, so that it simply provides a kind of remedy that mimics what a complete market might have done. We do not contest the idea that facilitating cooperation, and hence maximization of preference satisfaction, is the main point of private law adjudication. What we contest is the idea that actual markets are sufficiently close to complete markets for this market restoration strategy to make sense. In our view when legal adjudication is guided by the ideal of cooperation, it must do this in a more piecemeal fashion. Our suggestion is to replace the market

restoration strategy with the cooperation restoration strategy. The restoration of cooperation may not proceed entirely by means of restoration of markets.

We emphasize here the most important results of this paper. Complete markets implement a kind of rational cooperation among persons. They do this by eliminating bargaining power, problems of information and transaction costs. They bring about Pareto Optimal outcomes that treat persons minimally as equals because of this elimination of bargaining power and the full access to insurance provided to all.

Incomplete markets, on the contrary, tend to involve a significant amount of bargaining power on the part of some and fail to provide access to insurance to many, in particular the worst off. This has two serious impacts on efficiency: investment decisions among the worst off are not optimal because they must protect their consumption possibilities and the worst off lose more from the lack of insurance than others do because of the diminishing marginal utility of money. Thus they undermine efficiency in important ways. They also threaten the ideal of cooperation in another way. When market power for some and lack of insurance for others occur, the latter are subject to exploitation and loss of welfare and fail to invest optimally.

If the activity of adjudication in private law is to serve the ideal of cooperation, we have argued, it must reject the strategy of insulation. And it must often eschew the strategy of market restoration. It must give a kind of non-market provision of insurance to those who have difficulty of access to insurance. It must sometimes engage in distributive activities as well. In this way it promotes the efficiency and the egalitarian aspects of the ideal of rational cooperation. And it thereby participates in the collective effort to protect and promote such ideal.

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