

Property Economics of Agency Problems

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Abstract

This paper assesses the practical relevance of the agency theory; that is to say, determines to what extent agency models allows us to better understand real-world contracts as well as the economic-policy conclusions that we could derive from positive analysis of these models.

This paper will show that agency theory lacks practical relevance. We identify such a limit in its failure to engage in a comparative institutional analysis. Finally, we propose a counterfactual theory of agency problems which present counterfactual laws relating expropriation and agency problems and we argue that such laws can only be grasped in the light of counterfactual laws of property economics.

Keywords: Agency theory, Contract, Comparative Institutional Analysis, Expropriation, Property Rights.

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1 Introduction

Contractual relationships are a pervasive fact of economic life. Economic science teaches us that due to their subjective needs, individuals have subjective preferences, and hence different interests. Occasionally, different subjective interests give rise to conflicts of interest between contracting partners. These conflicts of interest may result, in turn, in one or both parties undertaking actions that may be against the interest of the other contracting partner. Agency theory deals with such problems.

Agency theory is concerned with how these agency problems affect the form of the contract and how they can be minimized, in particular, when contracting parties are variously informed (or uncertain).

The pervasive nature of contractual relationships gives the agency theory an important place in economic theory. Therefore, it seems necessary to inquire into the relevance of agency models in describing and explaining real-world contractual relationships. However, more important, we should also question the practical relevance of agency models in deriving economic-policy implications.

The following analysis will show that while we cannot deny that conventional agency theory has contributed to a better understanding of contractual relationships by emphasizing the existence of information problems, it appears that standard agency models lack practical relevance and that therefore it cannot derive appropriate economy-policy conclusions with regard to agency problems. Moreover, we demonstrate that standard agency models fail to identify the origins of agency problems. We argue that it is not sufficient to say that there are some agency problems; it is also necessary to identify their causes, in particular, when their causes are related to the economic organization in which such problems arise.

Our main argument is that these limits of standard agency theory largely result from the fact that (1) it does not take into account in its analysis the property-rights system in which agency problems occur and (2) it limits its usefulness by developing models that rely upon a comparative analysis between a perfect (unrealistic) and imperfect ("realistic") world rather than comparing realistic "worlds" and, therefore, its solutions are not only unrealistic and sometimes biased but also lack practical relevance. We argue that agency theory would gain in practical relevance by engaging in realistic comparative analysis, that is to say, analyzing how agency problems manifest themselves and are resolved in different economic organizations, namely, under

different property-rights systems. Moreover, we argue that by engaging in such comparative analysis, agency theory would be able to identify the cause of such problems and, more important, to distinguish between universal agency problems and problems that are contingent upon the economic organization in which they occur.

Section 2 presents the agency theory and problems with which agency theory deals. In section 3, we show that agency theory has little practical relevance. In section 4, we show that standard agency models do not succeed in identifying the origin of agency problems and, also, make a distinction between universal and contingent agency problems. Section 5 exposes a comparative theory of agency problems.

Let us make two important preliminary remarks to avoid any misunderstanding. First, it is necessary to underscore that such criticism is not new. Ronald Coase (1964) previously applied it to market-failure theory. Coase criticized market-failure theory for not engaging in a comparative institutional analysis and not underscoring the possibility of government failure when developing its economy-policy conclusions. In the same kind of critical thread, Demsetz (1969, 1989) developed the concept of Nirvana fallacy, which confirms this same idea that market-failure-theory conclusions are biased because they fail to engage in comparative institutional analysis before pronouncing economic policy conclusions. Therefore, our criticism is an extension and elaboration of Coase's criticism of market-failure theory and an attempt to provide a general framework of analysis to shed new light on agency problems.

Second, so far, we have considered agency literature as if it consists of a uniform research program. Actually, as Michael Jensen (1983) points out, we can distinguish two branches in agency theory. Both of them address the same problem, namely, the analysis of contracting problems between self-interested parties with divergent interests and the "minimization" of the costs generated by these contracting problems. However, each of them uses different approaches and focuses on different aspects of the problem.

The first one, which Jensen labels "principal-agent literature," is generally mathematical and non-empirical and focuses on informational aspects of the problem and how these aspects affect the form of the contract and how the costs generated by these informational aspects of the contract can be minimized.

The other branch labeled "positive theory of agency" is generally non-mathematical and empirically oriented and focuses in particular on the effects of market and institutional mechanisms that affect the contracting process.

The two branches of agency theory should consequently be considered complementary. However, as Jensen observes, there is some tension between the two branches. This tension partly results from the different approaches developed by each branch and partly from the fact that the mathematical approach of the principal-agent literature offers little insight "to explain the rich variety of observed contracting practices," and in particular, when it comes to analyzing the effects of market and institutional mechanisms in the forms of contracts. On the other hand, positive theory of agency literature appears to offer better insights to explain the variety of contracting practices and how market mechanisms affect the contracting process. This theory is also more likely to produce practical conclusions in terms of economic policy.

However, as shown below, even though the positive theory of agency does not suffer from the same limit as principal-agent literature, its practical significance in terms of economic-policy conclusions is limited because it lacks a comparative analysis.

Moreover, engaging in a comparative analysis would resolve the tension between the branches. A comparative analysis would allow the development of a theory explaining the origin of universal and contingency agency-problems and how these problems may be minimized while also allowing the development of empirical studies that will illustrate the theory.

2 Agency Theory: A Presentation

The agency theory deals with agency problems resulting from conflicts of interest that may emerge in contractual relationships when parties are differently informed or uncertain. The main objective of agency theory is to explain how contracting parties design contracts to minimize the costs associated with such problems. Agency theory also underscores the existence of market and institutional mechanisms that complete contracts to reduce these problems. Agency theory upon two key concepts: asymmetric information and creation of incentives.

In order to understand agency problems and how agency theory explains the form of contracts, it is necessary to present the hypothesis of its models and the results provided by the theory.

2.1 Agency Theory: Introduction

There is an agency relationship when the actions of one individual affect both his welfare and that of another person in an explicit or implicit contractual relationship. The individual who undertakes the actions is the agent and the person whose welfare (utility), measured in monetary terms, is affected by agent's actions is called the principal. The typical case of agency relationship is the one that exists between an employer (the principal) and his employee (the agent).

In an agency relationship, the principal wants the agent to act in the principal's interest. However, the agent is expected to have his own interest and consequently, he may not act in the principal's best interests:

We define an agency relationship as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationships are utility maximizers, there is a good reason to believe that the agent will not always act in the best interests of the principal. (Jensen and Meckling, 1976: 5).

Then, the principal's problem is consequently to design an incentive contract that induces the agent to undertake actions that will maximize the principal's welfare.

However, both the principal and agent are confronted with uncertainty. This uncertainty may appear in various ways.

First, the principal is uncertain about actions undertaken by the agent and/or information held by the agent. The mainstream-economic theory terms the principal's uncertainty state asymmetric information. There is a state of asymmetric information because the agent holds information that the principal does not.¹

Second, uncertainty bears on the outcomes of the agent's actions. An agent is uncertain about the outcomes of his actions. For the principal, this latter phenomenon manifests itself more precisely in the fact that the principal is uncertain about the causality between agent's actions and the outcomes.

This state of uncertainty and the resulting state of asymmetric information that exists between the principal and his agent impose certain constraints which complicate the forming of the

¹ We show below that agency theory identifies two kinds of agency problems that vary depending on the nature of information.

contract. These constraints create two kinds of problems: a moral hazard and/or an adverse selection problem.

2.2 The Moral Hazard and Incentives

A moral hazard problem arises when the principal cannot observe agent's actions because (1) there is a positive cost of monitoring agent's actions and (2) he is not even able to perfectly infer agent's actions by observing the outcome because the agent's actions do not completely determine the outcome. Traditionally, the literature argues that this latter phenomenon may result from the intervention of an unexpected-random-exogenous occurrence that has influenced the outcome, that is to say, it would be the consequence of some kind of windfall or misfortune and not of the agent's actions.

Then the principal faces two difficulties. First, he cannot design contracts based on his observation of agent's actions because the cost of monitoring his actions is generally prohibitive.

Second, the principal cannot entirely predicate the contract on the outcome for two reasons. First, he is uncertain about the causality between the agent's action and the outcome. And, second, because even if the principal would predicate the contract on his observation of the agent's actions anyway, the agent would not sign the contract because he is risk neutral. This state of affairs prevents the principal from designing complete contracts that make agent's fee contingent on either his actions or the outcome of his unobserved actions. In other words, the principal cannot contractually assign to the agent the full consequences of his actions.²

Therefore, the agent is able to engage in discretionary behaviors, that is to say, undertake actions that may undermine the utility of the principal. In other words, under such states of affairs, the agent may make decisions that go against the interest of the principal:

Moral hazard may be defined as actions of economic agents in maximizing their own utility to the detriment of others, in situations where they do not bear the full consequences or, equivalently, do not enjoy the full benefits of their actions due to uncertainty and incomplete or restricted contracts which prevent the assignment of full damages (benefits) to the agent responsible. (Kotovitz 1987: 549).

² Agency theory identifies other causes to explain the incompleteness of contracts such as costs of writing detailed contingent contracts and costs of enforcement. See Kotovitz (1987).

Moral-hazard problems have been identified in various kinds of contractual relationships. Therefore, it may be useful to present some examples to fully understand the concept of moral hazard and its implications in the contractual relationship.

The first example is the relationship between the physician and a patient who is the principal. In this case, the physician is the agent of the patient. The patient expects that her doctor will correctly identify and cure her illness. However, the principal is unable to monitor agent's efforts and the relation between agent's effort and the output is random.³ Therefore, the principal's problem is how she can induce the agent to take the best action to cure her.

A second example that can illustrate the moral hazard problem proceeds from Arrow's work in the context of insurance. The insurer is the principal and the insured is the agent. The problem of moral hazard manifests itself in the fact that the "insurance policy might itself change incentives and therefore the probabilities upon which the insurance company has relied."⁴ In other words, "moral hazard refers to the tendency of insurance protection to alter an individual's motive to prevent a loss."⁵ In the context of car insurance, the insurer will see his expenses increase if his client drives his car carelessly or recklessly. In the same way, if the car driver does not look after his car (for example, if he does not regularly change his brake pads or monitor tire pressure), the possibility of incurring an accident increases. A moral-hazard problem exists because the insurer cannot always keep an eye on his client and a car accident may not necessarily be the consequence of his client's negligence.

Another example is the credit relationship. One individual lends some money to another one, in return for a promise to repay that money at a future date. So long as there is a possibility of default, which can result from the actions of the borrower, there is a moral-hazard problem since the lender cannot perfectly observe the borrower's actions.

As we can see, there are many situations where moral-hazard problems can emerge. Agency-theory literature and, in particular, principal-agent literature, focuses in its models on the contracting process and how informational aspects of moral hazard are integrated in a contract to

³ The random character of the relation between agent's effort and output can be explained by the fact that the output can result from other factors than agent's actions. The physician may prescribe a medication for the patient that does not cure her because of a manufacturing defect.

⁴ Arrow (1971: 142).

⁵ Shavell (1979b: 541).

minimize the costs associated with moral-hazard problems.⁶ The key elements in the principal-agent literature are the structure of preferences of the parties to contract, the nature of uncertainty, and the informational structure in the environment.⁷ The principal-agent literature shows that, to reduce moral-hazard problems and minimize costs associated with these problems, contracts must have a "carrots and sticks" format.⁸ As we have previously said, the principal must induce the agent to take the most appropriate action that will maximize his expected utility. In order to do so, the principal must design a contract that balances incentives and risk sharing as well as rewards and punishments. The basic idea is to reward the agent when the desired outcome is relatively more likely due to his actions and penalize him if the desired outcome is relatively less likely due to inappropriate action by him.⁹

This is the very general conclusion of principal-agent models regarding to moral-hazard problems. Most of agency literature, besides this general conclusion, generally focuses on technical aspects regarding structure of preferences, the nature of uncertainty and the informational structure of the environment¹⁰ and examines how these aspects are affected when variations are introduced in the models. Examples of variations that can be found in the literature are moral hazard in the context of many principals and many agents¹¹, moral hazard in the context of long-term contracts¹², or the effect of time on moral hazard^{13, 14}.

The agency literature has also focused its work on another agency problem, namely, adverse selection.

⁶ As we shall below, positive theory of agency focuses on how various mechanisms affect the form of contract to minimize costs associated with agency problems.

⁷ We consider the structure of preferences of the parties to contract as an informational aspect of the contract because the structure of preferences depends actually of the degree of risk aversion of protagonists. And, the risk aversion is necessarily related to the fact that individuals are not evolving in a world of perfect and complete information. Traditionally, the literature assumes that the principal is risk-neutral while the agent is risk-averse. However, some models assume that the principal is also risk-averse.

⁸ The expression is due to Mirrlees (1997).

⁹ See Kreps (1990: 592-593).

¹⁰ See, for example, Holmstrom (1979), Shavell (1979a), Grossman and Hart (1983), and Mirrlees (1999).

¹¹ See, for example, Holmstrom (1982).

¹² See, for example, Lambert (1983).

¹³ See, for example, Radner (1985) and Holmstrom (1999).

¹⁴ These are only few examples of variations that principal-agent literature deals with. It is not our point here to discuss every development of principal-agent literature.

2.3 Adverse Selection, Signaling, and Screening

An adverse-selection problem appears when the agent possesses information that may prove useful to his decision-making and the principal does not know it. Therefore, the principal cannot know if the agent has made the most appropriate decision in light of the information possessed by the agent precisely because the principal does not have this information. The principal faces up, strictly speaking, to an asymmetric-information problem.

In a case of an adverse-selection problem, the costs of monitoring an agent's actions are not at stake insofar as the principal is not in possession of the information held by the agent; consequently, he is not able to know if the agent's actions were appropriate.

However, since Akerlof (1970), who first identified and analyzed the adverse-selection problem in the context of the market for used cars, the concept of adverse selection is more reserved for asymmetrical information concerning the intrinsic quality of the product or agent.

Akerlof's analysis of adverse selection and its effects on the market for used cars starts from an analogy with Gresham's law, which says that "bad money drives out the good."¹⁵

The problem is as follows: On the market for used cars, sellers (agents) can better observe the quality of cars that they sell while buyers (the principals) can only observe the average quality. The consequence is that the sellers have an informational advantage over the buyers and, consequently, the former can sell low quality cars at the same price as high quality cars since buyers cannot tell the difference between a good and a bad car. The principal effect of this adverse-selection problem is that it generally results in inefficient market allocations and, consequently, the used-car market will essentially consist of "lemons": "the 'bad' cars tend to drive out the good."¹⁶ Akerlof shows also that the extreme consequence of the adverse-selection problem is that no market can exist because the only equilibrium price of the market is zero and therefore no transactions occur at all.

Wilson (1980) pursued Akerlof's analysis and generalized it by showing that when buyers have heterogeneous preferences, there may be multiple equilibria and, in particular, that the nature of equilibrium varies with the nature of the institution or convention which sets the price. He demonstrates that the nature of equilibrium is different whether a Walrasian auctioneer sets

¹⁵ However, as Akerlof points out, this analogy is not complete because Gresham's law assumes that individuals are able to make the distinction between good and bad money.

¹⁶ Akerlof (1970: 489-490).

the price, buyers set the prices, or sellers are price-setters. He shows that when a Walrasian auctioneer sets the price, the presence of adverse selection may lead to multiple Walrasian equilibria that can always be ranked according to the Pareto criterion. In the same way, he shows that when buyers are price-setters, if the average quality of the goods offered for sale increases sufficiently with the price, some buyers may prefer higher prices than lower prices and consequently the market will be characterized by a distribution of prices with excess supply at all but the lowest price.¹⁷ In the third situation analyzed by Wilson, sellers are price-setters. In this case, the seller will announce a price that depends upon both his expected probability of making a sale at each price and the value he attaches to his car. However, the probability of selling a car at any price will actually depend on how many buyers submit bids at the price, which in turn depends upon their expectations about how quality relates to price. The form of the equilibrium will vary with the expectations of both buyers and sellers.

Following Akerlof and Wilson, the literature has produced further developments and analysis of the nature of the market and equilibria in presence of adverse selection. These developments tackle adverse selection with different approaches and/or by introducing further refinements.¹⁸

Moreover, Akerlof and Wilson's analysis of adverse selection have also given rise to a large variety of applications to various kinds of markets such as the insurance market¹⁹, the credit market²⁰ or the labor market²¹.

With the development of the analysis of markets with adverse selection, models have investigated solutions to adverse-selection problems. Traditionally, the theory principally identifies two mechanisms to reduce adverse-selections problems: signaling and screening.

The first method to reduce adverse selection is market signaling. First investigated by Spence (1973) in the context of the labor market, the idea is that the workers with higher productive capability will try to signal their quality by purchasing education, which is less costly to them than to workers with low productive capability.²² In the product market, the signaling device

¹⁷ The lowest price is the announced price to which buyers, who value increases in quality less, will buy cars from those sellers who were unable to sell at the higher price because of the excess supply.

¹⁸ See, for example, Gale (1992) and Rose (1993). In recent years, the non-cooperative game theory has also largely contributed to the analysis of markets with adverse selection. See, for example, Cho and Kreps (1987).

¹⁹ See, for example, Akerlof (1970), Arrow (1971), Rothschild and Stiglitz (1976)

²⁰ See, for example, Jaffee and Russell (1976), and Stiglitz and Weiss (1981).

²¹ See, for example, Spence (1973), and Salop and Salop (1976).

²² This assumption that the costs of signaling are negatively correlated with productive capability is general to all models of market signaling. However, this negative correlation can exist for one type of productive capability but not

works in the same way, sellers of higher-quality products will try to signal the quality of their products by undertaking some activity (such as guarantees) because it is less costly for them than to sellers of lower-quality products. In credit markets, borrowers use collateral to signal their creditworthiness.²³

The other device that allows principals to face adverse selection is the screening device. The idea is that, for example in the labor market, principals will use a set of observable characteristics, which are correlated with the parameter of interest, to screen and rank applicants' prospective job performance on the basis of their endowment of characteristics. The observable characteristics that principals can use to screen applicants are numerous in the labor market: sex, race, appearance, educational records, past work experience, etc. In the same way, in the credit market, banks will use past credit records to screen applicants.

Under the same category of screening device, we find another kind of device labeled self-selection.²⁴ The modus operandi is nevertheless different. Behind the concept of self-selection, there is the idea of action/reaction. Principals will screen agents by inducing them to signal their "quality". First analyzed by Rothschild and Stiglitz (1976) in the context of insurance markets, the idea of self-selection is that the principals (insurers) offer a "menu of (contingent) contracts" to the agents (action) and the latter by selecting one type of contract reveal their actual "quality" (reaction). Salop and Salop (1976) in their analysis of self-selection to minimize turnover costs incurred by firms provide the "best case of self-selection", which is recorded in the Old Testament. When King Solomon, pretending to apply the law of dividing disputed property, threatened to cut the baby in half, he induced each "mother" to reveal her true feelings for the baby and hence her true identity.

In their analysis of labor market, Salop and Salop show how firms incurring turnover costs can use a Two-Part Wage (TPW) as a self-selection device to identify slow quitters among its applicants and therefore minimize turnover costs by hiring them.²⁵

with another. In other words, investing in education may be considered as a signal with some respect to some jobs but not with respect to others.

²³ See Bester (1985, 1994).

²⁴ In some way, self-selection can also enter in the signaling category. See Spence (1976).

²⁵ Without entering in the details of their analysis, a TPW consists of making the employee pay the firm an entrance fee, in return for which he receives wages consisting of the market clearing wage plus a premium. Salop and Salop show that at the equilibrium the entrance fee must be equal to the worker own turnover costs, which correspond to his own training costs.

Guasch and Weiss (1981) identify another self-selection device to sort applicants labeled test-cum-fee strategy. The reasoning is to require applicants to pay a fee for being tested by the way of an examination or an apprenticeship program.²⁶ Such strategy has the effect of discouraging applications both from individuals who believe their probability of passing the examination is low and from less able workers.

2.4 Private and Public Mechanisms

As we have previously underscored, agency theory is not a uniform body. So far, we have discussed how principal-agent literature, as a branch of agency theory, deals with agency problems by integrating informational aspects of these problems into a contract. However, agency theory and, in particular, its branch, positive theory of agency, does not deal exclusively with the form of contracts that would help to minimize the costs associated with agency problems. However, it does demonstrate the existence of various mechanisms that "back up" contracts to counteract agency problems.

It is not necessary to list all the various mechanisms that contribute to the reduction of agency problems. However, it is important to make a distinction between two kinds of mechanisms because our criticism of agency theory will ultimately show that the second kind of mechanism actually does not help to reduce these agency problems.

We can make a distinction between two kinds of mechanism: the private and public/political mechanisms.²⁷

Our distinction between these two kinds of mechanism rests on the analysis of the modus operandi and the concept of voluntary commitment/agreement.

The first category of mechanism, which requires the consent of individuals concerned in order to work, is the private mechanism.

There are many examples of private mechanisms that the positive theory of agency has underscored, in particular, in the context of corporate governance. Mechanisms such as

²⁶ The fee for being tested is the difference between the applicant's wage in the training program and the wage he could obtain elsewhere.

²⁷ Some authors make a distinction between market and institutional mechanisms. However, such a distinction is not appropriate for two reasons. First, the market is in itself an institutional mechanism. Moreover, it is necessary to make a distinction between social and political institutions. The market belongs to the first category while the State belongs to the second category.

competition²⁸ and reputation (Fama, 1980; Kreps, 1996) are the two most quoted examples of mechanisms minimizing agency problems in the context of the firm. These private mechanisms, also labeled market mechanisms, are decentralized; that is to say, there is no central authority to organize and enforce these mechanisms.

On the other hand, political mechanisms do not need the consent of the affected individuals. These mechanisms are authoritatively enforced. Traditionally, political mechanisms take the form of commands and interdictions, which are enforced by the government or its agencies. In other words, when agency theory refers to political mechanisms, it refers to government/public regulations of economic activities, the objective of which is to minimize agency problems. There are many examples of regulations which attempt to prevent agency problems. Licensing and standards of quality and safety (Arrow, 1963; Leland, 1979; Rothenberg, 1993), antitrust regulation as well as insider-trading regulation (Easterbrook, 1981, 1985) are some examples of regulation that seeks to minimize agency problems.

3 What is the Practical Relevance of Agency Theory?

There is no any doubt that agency theory has contributed to an improvement in contract theory and the understanding of markets by pointing out the omnipresence of uncertainty and existence of informational asymmetries resulting from the division of labor and knowledge. Its contribution rests particularly in underscoring that real-world contract forms differ from contracts that would prevail in a hypothetical world where there would be no cost and no uncertainty, and where different attitudes towards risk between individuals do not exist. In the same way, agency theory has contributed to the understanding of various kinds of mechanisms to minimize agency problems.

However, after presenting agency theory, we must reply to the important question that necessarily follows from the positive analysis of agency theory: what is the practical relevance of such models? In other words, what are the economic-policy implications that can be derived from agency models?

²⁸ The literature essentially underscores three types of competition: managerial competition (Fama, 1980), competition in the product market (Schmidt, 1997), competition in the market for corporate control (Manne, 1965; Jensen, 1984).

The response is that the practical relevance of agency theory is actually quite limited and therefore it is difficult to derive economic-policy implications. Two reasons, which are linked, explain this limit of agency models.

First, as Arrows points out (1985: 48-49), agency models are not consistent with what we observe in reality:

But it is perhaps more useful to consider the extent to which the principal-agent relation in actuality differs from in the models developed to date. Most importantly, the theory tends to lead to very complex fee functions. It turns out to be difficult to establish even what would appear to be common-sense properties of monotonicity and the like. We do not find such complex relations in reality. (...) In some cases, where principal-agent theory seems clearly applicable, real-world practice is very different from the model. (...) Even in situations where compensation systems seem closer in form to the theoretical, there are significant differences.

As Kotowitz (1987) remarks, traditionally in agency models:

The nature of the reward schedule is sensitive to the nature of the information available, the residual uncertainty and the degree of risk aversion of the agent and principal. This observation is troubling because incentive contracts observed in reality are generally simple and uniform across a variety of agents and information sets.

In the same way, when we observe the world "through the window," we can see market for products and services of different qualities that would not exist if we adhere to Arrow and Akerlof's most certainly extreme conclusions.

How can we explain such a discrepancy between the world as described by agency theory and the real world? One explanation is that agency models are, as Jensen (1983) observed, extremely mathematical and therefore have difficulty explaining the actual form of real-world contracts because, for example, they do not take into account how market mechanisms affect the contracting process.

However, it seems that there is a more important reason that Jensen did not expressly emphasize; a reason that explains why agency models are not realistic and why the practical significance of agency theory is limited: agency theory does not take into account property-rights systems in which such contractual relationships occur.

The typical analysis framework of agency theory is supposedly a real-life world characterized by the existence of cost, risk, uncertainty and ignorance. In real life, agency theory observes that contractual relationships are not those that we would observe in a world where information would

flow costlessly and perfectly.²⁹ To summarize, agency models are content with introducing into their models distortions that these imperfections, which characterize the real-life world of agency theory, create in contractual relationships. They demonstrate how, in the real world, individuals intend to resolve informational problems that would not exist in a perfect world. Therefore, we should concede that agency proceeds to a comparative analysis between two worlds: a perfect and a real-life world. However, it appears that the supposedly real-life world is as imaginary as the perfect world because the real world described by agency theory is a very simplified representation of the real world that we observe everyday. It is true that, in the real world, acting is costly; individuals are differently averse to risk and differently informed. It is also true that current analysis is useful to explain some phenomena such as the existence of agency problems, but still the discrepancy between the theoretical real world and the real world is such that the results of agency models do not exist in the world that we observe every day.

As we have previously stated, the unrealistic trait of agency models results from the fact that its analytical framework does not take into account the property-rights systems in which agency problems and contractual relationships occur. Therefore, agency models are unable to incorporate into their analysis of agency problems and contractual relationships the effects of private and public mechanisms such as competition, reputation, licensing, and standards of quality and safety on agency problems and the contracting process because the existence of such mechanisms depends on the property-rights system in which contractual relationships evolve.

To understand how introducing the institutional setting into the analysis framework will help agency theory to gain in realism and therefore in practical significance, we need to establish a typology of property-rights systems that we can place on a spectrum. At each extreme of the spectrum, we can place totally opposed systems of property-rights: the market economy and socialist/planned economy.

A market economy is defined as a social system of division of labor based on private ownership of the means of production. Two other important features define a market economy: freedom of contract and respect of the property rights of others.

On the other hand, a socialist or planned economy is a social system based on public ownership of means of production. Traditionally, in a socialist economy, all the means of the

²⁹ See Pratt and Zeckhauser (1985: 2).

production are controlled by the people's representatives, that is to say, the government/state.³⁰ It is also important to emphasize that property-rights are also respected in such system.

The essential difference between these two systems is the degree of expropriation by the government; that is to say, the degree of government intervention in the freedom owners of exercising their property rights.³¹ On a scale between 0 and 1, we can say that the degree of expropriation in a market economy is 0 or close to 0 while the degree of expropriation of property rights in a socialist economy is 1. Between these two extremes, we find on the spectrum intermediary property-rights systems that we can range by the degree of expropriation exercised by the government. We define these intermediary property-rights systems as interventionist systems. In such interventionist systems, government expropriation is manifested by commands and interdictions that restrict the owners' freedom to exercise property rights and freedom to contract. The more these rights are restricted, the more interventionist is the system and closer it is to a planned economy.

As we have previously noted, not introducing the institutional framework into the analysis of agency problems limits the ability of agency theory, and in particular, the principal-agent literature to deal with the effects of private or public mechanisms on agency problems and contract processing because their existence and functioning depend of the property-rights system in which they evolve. More precisely, it is the degree of government expropriation that determines if a mechanism exists and the effectiveness of such a mechanism in reducing agency problems and affecting the contract process.

Some examples may illustrate our point. First, in a socialist economy, since government owns all the means of production, there is competition neither in the market for products nor in the market for corporate control; these two mechanisms, as a positive theory of agency often demonstrates, help to minimize agency costs and limit the extent to which managers can act against shareholder's interests. Therefore, the State, being the only owner of the means of

³⁰ See Mises (1998b).

³¹ It should be clear that in a planned economy, since individuals do not own privately means of production, there is no current government expropriation because the government had appropriated earlier all the means of production. However, it is possible to consider the expropriation in a dynamic perspective and assume that the government does not appropriate property in the means of production at one go but gradually. As we shall see below, a comparative institutional analysis can be developed in a static perspective by comparing, for example, agency costs in two countries characterized by different property-rights systems but also in a dynamic perspective by comparing agency costs in a country of which the property-rights system has changed through time under the influence of government engagement or disengagement.

production, must have recourse to other mechanisms such as regulations to minimize agency problems. On the other hand, under a property-rights system where there is no government intervention, individuals must have (explicit or implicit) recourse to private mechanisms such as black list or boycott to deter individuals from adopting discretionary behaviors.

Another example to illustrate the importance to consider the institutional framework in the analysis is the mechanism of competition in the labor market will not have the same effectiveness in terms of deterring employees from adopting behaviors going against employer's interests in a system where the government regulates the conditions of redundancy and in a system where there is no regulation of the conditions of redundancy.³² If it becomes more costly for a firm to dismiss a worker who is shirking, the firm will have less incentive to fire the worker at fault and therefore the latter will have less incentive to change his behavior. Therefore, the pressure that competition in the labor market puts on workers happens to be reduced. The effectiveness of competition in the labor market is also reduced in a system where government regulation increases the cost of hiring a new worker. More generally, competition in the labor market will not have the same impact on agency problems in a system where turnover costs are higher because of government regulation. Therefore, employers will have to have recourse to other mechanisms such as including in contract bonus or stock options to give incentive for their employees not to shirk.

In the same way, in an economic system, where there is no government regulations of business practices through licensing or no product control through standards of quality and safety, consumers must rely on other mechanisms, if there is any, to face up to adverse-selection problems.³³

Again, the various mechanisms whether private or public won't be the same and work in the same way under different property-rights systems, and therefore contracts won't have the same form under different property-rights systems.

That leads us to the core of our argument. It is because agency theory does not incorporate in its analysis framework the property-rights system in which agency problems occur that agency theory is also unable to analyze properly how under different property-rights systems agency problems are managed. It follows that agency theory cannot correctly assess through a

³² On the threat of redundancy as a disciplinary mechanism when there is involuntary unemployment in the labor markets; see, for example, Shapiro and Stiglitz (1984).

³³ See below for an analysis of the issue of quality and safety as an example of comparative institutional analysis.

comparative institutional analysis the relative effectiveness of a particular economic system in reducing agency costs when it derives economic-policy conclusions.

A reading of agency literature shows that it is by no means unusual for agency theory to advocate government intervention on the basis that in the "real world", which is devoid of government intervention, individuals and the "market" are not able to resolve agency problems and thereby reach the ideal system.

We can find examples of economic-policy conclusions in the agency-theory literature in which authors argue that the market fails to resolve agency problems.

Probably the most famous one can be found in Arrow's analysis of the medical-care industry.³⁴ Arrow argues the market is unable to overcome moral hazard problems resulting from the presence of uncertainty and resulting information asymmetries in the market and therefore the government should substitute for the market's failure in the medical-care industry. Arrow's conclusion is very clear about it:

It is the general social consensus, clearly, that the laissez-faire solution for medicine is intolerable.³⁵

Another example, which is not without any relation with the example of the medical-care industry, is the provision of services and goods. It has become common assumption that customers do not know the quality of service or good provided.³⁶ Therefore, the government should regulate quality of service and good provided by imposing minimum quality constraints through, for example, licensing requirements that will "exceed those which would prevail in a free market."³⁷ It is implicitly the same kind of reasoning that the regulator adopts in its justification for the establishment of government regulation of product standards. In its final report that lead to the enactment of the Consumer Product Safety Act (15 U.S.C. 2051-2084) and the creation of the Product Safety Commission, the National Commission on Product Safety

³⁴ See Arrow (1963). See also Akerlof (1970: 493-494).

³⁵ Arrow (1963: 967). However, it is necessary to note that, in his Postscript, Arrow did point out that government was not the only alternative in response to agency problems and that many private mechanisms exist to counteract effects of agency problems. Arrow quotes in example the family or the medical profession, which functioning does not rely on the impersonal price system. See Arrow (1963: 967).

³⁶ See, for example, Leland (1979: 1330). See also Leland (1980).

³⁷ Leland (1979: 1339-1340). Moreover, in his analysis of licensing, when considering the possibility of self-regulation by a professional group or industry, Leland rejects this solution arguing that standards will always be set too restrictively in order to achieve monopoly rents. See Leland (1979: 1337-1339).

stated competitive market forces and industry self-regulation are incapable of attaining an acceptable level of safety.³⁸ The Consumer Product Safety Act (15 U.S.C. 2051) also states:

The Congress finds that (...) complexities of consumer products and the diverse nature and abilities of consumers using them frequently result in an inability of users to anticipate risks and to safeguard themselves adequately.

Therefore,

[T]he public should be protected against reasonable risks of injury associated with consumer products.

In other words, regulation is necessary because individuals are unable to protect themselves and the market does not produce the mechanisms necessary to provide a satisfactory level of quality and safety:

The market's myriad decentralized actions do not themselves ensure adequate safety. Centralized controls of various sorts are needed. These have been instituted in the form of regulations, constraints, information programs, licensing and certification (where complex producer skills are largely indescribable to consumers), and damage liability. (Rothenberg, 1993: 172)

Another example of regulation that has been (implicitly) justified on agency-problems grounds and the inability of individuals and the market to generate mechanisms to minimize agency costs is the securities regulation. Scholars and regulators often argue that the government should regulate the securities markets to reduce agency problems such as "expropriating" investors through misrepresentation, stock manipulation, or profit diversion. For example, the case for mandatory disclosure of information under financial and securities regulation has been largely based on the agency-problem argument and the fact market mechanisms and, in particular, the reputation mechanism will not eliminate at all occasions for opportunistic behavior.³⁹ In the same context of investor protection, the recent adoption of the Regulation FD (17CFR243: 491-493) by the U.S. Securities and Exchange Commission prohibiting selective disclosure by company officials of material non-public company information to market

³⁸ See Oi (1973: 4) reporting findings of the National Commission on Product Safety.

³⁹ See, for example, Coffee (1984: 738-743). The Securities Act of 1933 regulates the information that must be disclosed to investors in new securities issues. The Securities Exchange Act of 1934 regulates periodic disclosure of financial information by publicly owned corporations.

professionals and selected institutional investors before making full disclosure to the general public has also been justified on the grounds that the voluntary "improvement in issuer disclosure practices, while laudable, have been far from fully effective."⁴⁰ In the context of selective disclosure and insider trading, the former SEC's chairman explicitly stated:

Securities firms are supposed to have information barriers to stop the spread of such data. But when we see trading spikes in this short time period, I worry about the effectiveness of those internal mechanisms. (Levitt, 1998: 6)

These few examples of regulations, as we can see, have been justified on the arguments that the world in which we are acting is not perfect. It is a world characterized by asymmetric information, uncertainty, and costs. Therefore, according to these authors, the government should intervene through regulations to mitigate these imperfections. The obvious assumption in these analyses is that individuals and the "market" are not able to counteract the perverse effects of these imperfections and, consequently, an external intervention, through the government action, should take place.

Actually, it is possible to demonstrate that these conclusions are biased and the reason is the following. The described analyses use an approach which is methodologically erroneous when it is a question of deriving economic-policy conclusions and, in consequence, suffer from the same fallacy as market-failure theory: the Nirvana fallacy. These analyses use comparative analysis based on an imaginary perfect world and draws its conclusions on the basis that there are discrepancies between the "real" world and the "norm."⁴¹ As Coase (1964: 195) and Demsetz (1969: 3-4) emphasized, the use of imaginary constructions such as perfect competitive model may be useful to analyze economic phenomena but when it comes to deriving economic-policy

⁴⁰ Securities and Exchange Commission (2000: 5). It is necessary to emphasize that previously the SEC (2000: 4; emphasis added) expressly rejects the possibility of allowing the market to choose the "best practices" of disclosure:

One fundamental issue raised by these commenters was whether Regulation FD is necessary. Some commenters stated that there is limited anecdotal evidence of selective disclosure. Others suggested that it appears that issuer disclosure practices are generally improving, so that we should refrain from rulemaking at this time and, instead permit practices to evolve and encourage voluntary adherence to "best practices" disclosure. We do not agree with these views.

⁴¹ The use of such a methodology is clearly stated by Arrow (1963: 941-942) in the introduction of his paper:

The focus of discussion will be on the way the operation of the medical-care industry and the efficacy with which it satisfies the needs of society differ from a norm, if at all. The "norm" that the economist usually uses for the purposes of such comparisons is the operation of a competitive model, that is, the flows of services that would be offered and purchased and the prices that would be paid for them if each individual in the market offered or purchased services at the going prices were such that the amount of services which were available equaled the total amounts which other individuals were willing to purchase, with no imposed restrictions on supply or demand.

conclusions such methodology is not only "incorrect" but it is also "harmful." The only appropriate method to derive normative conclusions is to compare under different property-rights systems how these agency problems are managed. In other words, the only appropriate method to derive economic-policy conclusions is a comparative institutional analysis.

Therefore, we should now intend to see what could be the conclusions if such a comparative institutional analysis would be developed to analyze the problems we have previously pointed out.⁴²

The first example that we should intend to analyze through a comparative institutional analysis is the medical-care industry. As we have previously seen, Arrow (1963) and Akerlof (1970) argue in favor of public medical insurance and Medicare, and maintain that individuals and insurers are not able to deal with informational asymmetry and agency problems. Therefore, there is a market failure for which the government must provide a substitute. Unfortunately, it seems that such a contention is not supported by the historical experience. Actually, it appears that the so-called market failure pointed out by Arrow and Akerlof was not inherent to the market economy but largely resulted from an external intervention in the market economy; that is to say, the government intervention. Moreover, history shows that the first public-insurance schemes were largely failing.

Green (1982, 1993a, 1993b) and Marquès (2000a, 2000b) have proceeded to such a comparative institutional approach by analyzing the evolution of medical-care systems in Britain and in France between early nineteenth century when the medical-care system consisted of private schemes and the beginning of the twentieth century with the establishment and development of public medical-care systems.

Green (1993a: 479-486) shows that, before the enactment of the *National Insurance Act* in 1911:

In Britain, medical care was provided in a variety of ways at the turn of the century. The very poor relied on the poor law, and provision for the rest of the population fell into three main categories. First, many sought medical care as private patients and paid a fee to the doctor of their chose. The fees charged varied according to income, with rent taken as the chief test of

⁴² It is important to emphasize here that we do not argue that the market economy will achieve perfection. Our point is rather to argue that justifying government intervention by underscoring the existence of imperfections of the market economy is not sufficient. It is also necessary to identify the various mechanisms used to mitigate these imperfections used in different property-rights systems and compare their effectiveness in order to draw economic-policy conclusions about the desirability of one system on another.

ability to pay. Second, a large section of the population obtained care free of charge through charities. Particularly in London and the larger towns, some people used the outpatient departments of the voluntary hospitals; other used free dispensaries where they existed. Third, and most common, were prepayments schemes, usually called contract practice, based on the payment of a fixed annual capitation fee.⁴³

By the beginning of the nineteenth century, there were 7200 mutual aid societies that had 648 000 adult male members; almost as important as the number of poor people benefiting from the Poor Laws. Prepayment schemes were very important and various but the most important numerically were the friendly society schemes. They brought together probably as many members as the acknowledged mutual aid societies. At the beginning of the 1890s, the totality of the mutual aid societies had between 6 and 7 million of members; that is to say, more than 50% of adult men.⁴⁴ In Green's words (1993b: 400):

By the time the British Government came to introduce compulsory social insurance for 12 million persons under the 1911 National Insurance Act, some 9.5 million were already covered by registered and unregistered insurance associations, chiefly the friendly societies. In 1910, the last full year before the 1911 Act, there were 6.6 million members of registered friendly societies, quite apart from those in unregistered societies.

In France, Marquès (2000b: 320-330) explains that mutual aid societies developed on the same scheme than the British friendly societies. However, he notes that their number was much less important than in Britain and we have to wait 1870 before reaching a number of 10.000 societies having 600.000 members. But, as he emphasizes, their role has been very important in providing medical insurance. Moreover, there was a large variety of other kinds of private organizations which provided assistance and insurance for people. Unions and dispensaries provided indemnification schemes during unemployment periods and support to help people in search of work.⁴⁵ Finally, insurers started to develop social provident schemes; they commercialized accident insurances at the beginning of the 1860s and began to compete with mutual aid societies by providing health insurances integrating surgical expenses.⁴⁶

Another important aspect of Green and Marquès' works is that both they show that, contrary to Arrow-Akerlof's conjectures, these private schemes have been able to reduce the problems

⁴³ See also Green (1993b: 414-418).

⁴⁴ See Green (1982: 17-18).

⁴⁵ See Marquès (2000a: 93-108).

⁴⁶ See Marquès (2000b: 324).

associated with the existence of informational asymmetries through a discovery process of trial and error. They helped their members to overcome the informational-asymmetry problems inherent in their relations with medical practitioners by stimulating competition between doctors and, thus, encouraging them to improve the quality of their services. Moreover, friendly societies evolved complaint procedures to prevent doctors from adopting moral-hazard-type behaviors. They had arbitration committees comprising impartial individuals to resolve conflicts between patients and medical practitioners.⁴⁷ In France, mutual aid societies had contracts with one or several doctors and their contracts could be renewed at the end of members annual voting. This system allowed reducing the amount of medical expenses because the doctors, assured that they will have a constant flow of customers, consented to offer important discounts. Moreover, these societies protecting their member's interests played a role of middleman on the pharmaceutical market; they decided what treatments they would pay for and negotiated reduced rates with the manufacturers and druggists.⁴⁸

These private organizations have also succeeded to protect themselves against adverse-selection problems through a discovery process. In Great Britain, prepayment schemes usually required that their new members to pass a medical examination. In France, societies frequently imposed a probationary period called "training period" or "novitiate."⁴⁹ Moreover, these mutual aid societies have obtained very good results in minimizing moral-hazard problems by taking advantage of the fact that members knowing each other monitored mutually; therefore, preventing ex ante discretionary behaviors and minimizing ex post excessive reimbursements. This kind of group dynamic cultivated the feeling of reciprocal dependency and mutual responsibility between members.⁵⁰

To be sure, some societies and insurance companies did go bankrupt because of moral-hazard and adverse-selection problems. However, we do not observe any general bankruptcy, contrary to what Arrow and Akerlof implicitly would like to make us believe.

Nevertheless, to draw economic-policy conclusions, it is not sufficient to emphasize the existence of private schemes providing people with medical care. We still have to compare their

⁴⁷ See Green (1993: 487-488).

⁴⁸ See Marquès (2000b: 328-329).

⁴⁹ See Marquès (2000b: 330). It is interesting to notice that we can find Marquès' observation in the theoretical literature with the test-cum-fee strategy underscored by Guasch and Weiss (1981).

⁵⁰ See Bastiat (1996: 9-23).

performances with those of the public system. In France, at least at the beginning, when private and public schemes coexisted, it appears that the first public insurance schemes were largely failing. National life and accident insurance funds did not succeed in drawing clients even though they were supposed to welcome people excluded from private insurance schemes. Moreover, it seems that these public schemes were victims of more important adverse-selection problems.⁵¹ In Britain, as Green shows, it is not evident at all that the public system performed better than the private system. Moreover, it appears that the instauration of the compulsory public system has enhanced agency problems rather than reduced them. Not only, the National Insurance Act raised the medical fees but "weakened the power of the medical consumer," thus increasing moral-hazard problems since medical practitioners were no longer subject to lay control.⁵²

Finally, both Green and Marquès show that the progressive disappearance of private schemes did result from State government interventions. Marquès shows that, in France, the public regulation has hampered the evolution of first private schemes by rendering more complicated mutual-aid-society manager's tasks. The legislation compelled mutual aid societies not have more than 500 members and "therefore, these 'micro-societies' could not make important economies of scale."⁵³ In the same way, insurers have also been victims of an even more important regulation of their activities. The general consequences of these regulations are that the private schemes have been able to engage in a trial-and-error process and discover "the virtues of actuarial calculation."⁵⁴ Therefore, unable to manage agency problems, the private schemes have progressively disappeared. In Britain, the compulsory national insurance system has not hampered the development of the private schemes but has also progressively contributed to their destruction.⁵⁵

Overall, the comparative institutional analyses developed by Green and Marquès do not falsify Arrow and Akerlof's assertions on the necessity of public medical insurance because individuals and insurers are not able to deal with informational asymmetries and agency problems. Furthermore, Green and Marquès' works do not strengthen and Akerlof's "implicit" assumptions that government insurance programs are superior in counteracting agency problems.

⁵¹ See Marquès (2000a: 206-212 and 217-222).

⁵² See Green (1993a: 487-491) and Green (1993b: 432-454).

⁵³ Marquès (2000b: 334).

⁵⁴ Marquès (2000b: 336).

⁵⁵ See fn. 51.

In the same way than Green and Marquès have studied the problem of medical care, we can also analyze the problem of quality and safety of goods and services. As we have previous related, it is a common assumption among economists and regulators to justify regulation of quality and safety on the grounds that consumers have difficulties to protect themselves against adverse-selection problems resulting from informational asymmetries. Government intervention is consequently necessary to substitute for market's failure. Such conclusions, which largely result from Akerlof's work, have been however questioned from various perspectives. From a theoretical point of view, Heal (1976) and Grossman (1989) have shown that Akerlof's conclusions do not hold. From a game-theory perspective, Heal shows that when the game is repeated infinitely many times; that is to say, when traders engage in repeated exchanges, the necessity for the sellers to maintain their reputation incites them to maintain standards.⁵⁶ Grossman shows that, even when traders won't engage in repeated interactions, warranties prevent sellers from misleading consumers with rational expectations about the quality of their products.

From a comparative institutional perspective, Klein (1997, 1998) shows that it is far from evident that government regulation of quality and safety is both necessary and more successful than voluntary processes. As Klein emphasizes, there is "a wide variety of ways in which voluntary processes mitigate trust problems;" that is to say, adverse-selection problems emphasized by Akerlof and the regulators.⁵⁷ Klein identifies four categories of voluntary processes that "evolve not merely to provide quality and safety but in the first instance to provide quality and safety assurance."⁵⁸ Knower organizations, firms, market forms, and social networks act in cooperation to reduce adverse-selection problems. As he explains, using Heal results, firms acting as they are engaged in a repeated game, have incentives to "cooperate" with consumers to protect their reputation.⁵⁹ But even when it is not the case and traders do not engage in repeated interactions, "they or others have incentives to create alternative games with different rules and happier outcomes."⁶⁰ Klein gives examples of these alternatives games with different rules

⁵⁶ See Heal (1976: 502).

⁵⁷ Klein (1997: 98).

⁵⁸ Klein (1997: 128).

⁵⁹ See Klein (1997: 101; 105-106).

⁶⁰ Klein (1997: 101).

avoiding the need for trust. Increments and hostages are examples of mechanisms to avoid trust problems:

Some search and experience characteristics can be conveyed by advertisements, displays, free samples, and tryout periods. These are ways of incrementalizing the trading relationship. (...)

Another way to alter the structure of interaction so as to lessen the dependence on trust is for the promisor [the agent] to give over a "hostage" to the truster [the principal]. (...) In the case of products and services, manufacturers and practitioners can offer guarantees and warranties, which give the truster a retaliatory move late in the relationship.⁶¹

Moreover, Klein shows that there exist many voluntary mechanisms providing information regarding product quality. As he explains, social networks play an important role in providing quality information to consumers. When making their decisions, consumers are not isolated from the rest of the world, they interact, communicate, share information, advice each other. Proximity networks play an important role in providing quality information and express themselves through various forms: chatting, group meetings, correspondence, leaflets, bulletin boards, newsletters, local newspapers, and internet on which we can find newsgroups, blacklists, calls for boycott, mailing lists, email groups, and so on.⁶²

Another kind of voluntary mechanisms by which quality information is provided to consumers and help to mitigate adverse-selection problems is the knower organization. As Klein emphasizes knower organizations, which generate and convey quality information to consumers, help to reduce adverse-selection problems. These organizations are remunerated either by the consumers or by the providers. Examples of such organizations are the Consumers Union, Underwriters Laboratories, the Better Business Bureau, and the Consumer Health Services.⁶³ These different organizations play an entrepreneurial role in generating and conveying information to consumers and have existed before the government regulated quality and safety. The Consumers Union, for example, publishes annually Consumer Reports since 1936 and gives information on over 1,500 products in 65 product categories.⁶⁴ In the same way, the Underwriters

⁶¹ Klein (1997: 102). See also Klein (1998: 541).

⁶² See Klein (1997: 107-108) and Klein (1998: 541).

⁶³ See Klein (1997: 112-117). See also Blundell and Robinson (2000: 18-26), Yilmaz (1998), and Yilmaz (2000: 87-89).

⁶⁴ See Klein (1997: 113). As Klein points out, the Consumers Union also reports the results of the annual subscriber questionnaire on a wide variety of products such as automobiles, TVs, VCRs, and other electronics. Moreover, the Consumers Union publishes other kinds of publication such as consumer-information books, consumer newsletter on health, a consumer newsletter on travel, etc.

Laboratories, a non-profit organization created in 1901, provides voluntary certification for, for example, electrical appliances, automotive products, medical appliances, alarm systems and chemicals. The Underwriters Laboratories tests thousands of products and provides certifications for satisfactory products.⁶⁵

Finally, as Klein emphasizes, there is the middleman who acts an entrepreneur specializing in "an information service that is often too costly for the consumer to perform herself" allows consumers to protect themselves from adverse-selection problems and coordinating actions between consumers and good-quality goods providers. Specializing in knowing good products from bad, the middleman coordinates consumer and seller's actions by getting them in touch.⁶⁶

Therefore, as we have seen, there are many ways to provide quality information to consumers to help them to protect themselves against adverse-selection problems independently from government regulation. Again, the question that interests us is whether these private mechanisms are superior to government regulation of quality and safety. One way to reply to such question is provided by Yilmaz (2000: 89):

Their long history and large presence prove that 'private regulation' by these market-based institutions is effective.

These private mechanisms are, as we have previously said, voluntary mechanisms. Therefore, if the consumers or sellers would consider that these mechanisms were inefficient or even harmful, they won't resort to them and, consequently, these mechanisms will progressively disappear. However, this is not the case. For example, as we have seen, some of these knower organizations exist for over one century. One argument that could be raised against such observation is that these organizations may be subject to some kind of corruption for manufacturers and services providers. The reply to this objection is that, not only most of these organizations are nonprofit organizations but moreover, they operate in a competitive market contrary to government regulation, which has no competitor. For example, as Blundell and Robinson points out, the Underwriters Laboratories have currently 12 competitors.⁶⁷

Moreover, from an empirical perspective, it is not evident that government regulation performs better than these private mechanisms. Viscusi (1984, 1985) shows that the regulatory

⁶⁵ See Blundell and Robinson (2000: 18-19). See also Brearly (1997: 75-84) and Klein (1997: 114-115).

⁶⁶ See Klein (1997: 127-128). From a theoretical perspective, see also Garella (1989) on the role of middleman in mitigating adverse-selection problems in markets where informational asymmetries prevail.

⁶⁷ See Blundell and Robinson (2000: 19).

practices of the Consumer Product Safety Commission are both ineffective and inefficient. In the same way, Booker (1994) also demonstrates that most of quality and safety regulations are inefficient and, even worse, are actually counterproductive. Peltzman (1975), for example, that automobile safety regulation has no effect whatsoever on the highway death rate. In the same way, when analyzing Occupational Safety and Health Regulation, Viscusi (1986) concludes that even if we cannot conclude that such a regulation has no effect at all, its effects are relatively minor. Lanoie (1992) reaches the same conclusions than Viscusi's regarding the effectiveness of Occupational Safety and Health Regulation on the risk of workplace accidents in Quebec between 1983 and 1987:

Overall, the estimations indicated that, at best, Quebec policies led to a minor reduction in the frequency of accidents in Quebec during the period 1983-1987. Although disturbing, this result is in line with American econometric studies (based on aggregate data) that found little or no impact of OSHA regulation on workplace safety. (Lanoie, 1992: 657).

Keith (1995) shows that the Food and Drug Administration's prohibition for sellers of aspirin to use information on heart-attack prevention on consumer labels or in consumer advertising on the basis that consumers cannot judge when use is appropriate has potentially harmful effects. She shows that "a third of high-risk consumers are unaware that aspirin may reduce the risk of heart attack and therefore cannot prompt their physicians, much less to choose to self-prescribe."⁶⁸ Keith's study is important because she actually shows that government regulation of quality and safety does not enhance consumer's access to information but actually restricts it.

Again, it appears that our comparative institutional analysis does not confirm economists' conclusions according the desirability of quality-and-safety regulation. Rather it not only appears that voluntary mechanisms are overall superior to government regulation, but it also seems that government regulation is largely inefficient and often counterproductive.⁶⁹

The last example that we should analyze from a comparative institutional analysis is the problem of disclosure of corporate information. As we have previously seen, it is generally assumed since 1933 that the regulation of disclosure of corporate information is a necessity to avoid moral-hazard and adverse-selection problems between the management and the investors.

⁶⁸ Keith (1995: 99). Alison Keith's results proceed from data from a telephone survey of 2000 consumers completed in late 1994. See Keith (1995: 1, fn. 1).

⁶⁹ For a recent study of the impact of a group of regulations, see Hahn et al. (2000) showing that twenty-four tested health, safety, and environmental regulations are largely inefficient in reducing mortality and actually an increase in risk is likely to result from the majority of regulations examined.

The analysis from a historical perspective of such a regulation is particularly interesting insofar as its origin goes back to the Great Depression and its original justification is grounded in a theoretical error. As Benston (1982: 175) reminds us, the fundamental rationale for securities regulations and in particular the government-required disclosure was that the cause of the Great Depression was the stock market and not Fed's inflationary monetary policies:

At the time of the depression, its causes were not known. The disastrous effects of federal monetary policy in the 1930s, the isolationist Smooth-Hawley Tariff, and the Federal Reserve System's mishandling of the banking crisis were not generally recognized. Many of the victims of the crisis were seen as the perpetrators at a time when everyone hastily sought to lay the blame somewhere. The stock-market was perceived as one of the greatest villains. The great stock-market crash was seen not as a result of an artificially unstable economy but as the cause of it.

The origin of the stock-market crash was seen in the fact that investors were purposefully under-informed by the corporations. According to the Pecora Hearings, fraud, manipulation, and embezzlement were rules and not exceptions. The necessity to restore honesty, integrity and fairness on the stock market called accordingly for the enactment of Securities Exchange Act of 1933 and the Securities Exchange Act of 1934 regulating the disclosure of financial accounting information by corporations whose stock is traded in the markets. Since 1933, securities regulation has strengthened its disclosure requirements culminating with the adoption of the Regulation FD (17CFR243: 491-493) by the U.S. Securities and Exchange Commission prohibiting selective disclosure by company officials of material non-public company information to market professionals and selected institutional investors before making full disclosure to the general public.

While there are some skeptical attitudes toward government mandated disclosure, it seems there is a large consensus among scholars and government officials that such regulations are necessary to protect investors from agency problems.⁷⁰

A comparative institutional analysis should shed new light on this issue. Stigler (1964a) Benston (1969a, 1969b, 1973, and 1982), and Manne (1974) have done a considerable work in this area by analyzing the desirability and efficacy of government intervention in the securities markets. These three economists fundamentally reach the same conclusions concerning the efficacy of government-required disclosure rules: they are largely ineffective and often generate

⁷⁰ See, for example, Karmel (1979).

harmful side effects. In his analysis of the impact of the Securities Exchange Act of 1933, which regulates the issue of new securities, Stigler makes a comparison between pre-regulation and post-regulation period and analyzes "how did investors fare before and after the S.E.C was given control over the registration of new issues."⁷¹ His findings are "puzzling." First, he finds that:

The investors in common stocks in the 1950's did little better than in the 1920's, indeed clearly no better if they held the securities only one or two years. (Stigler, 1964a: 121)

More important, he also finds that a major effect of the S.E.C was to exclude new companies.⁷² His conclusion is quite definitive:

These studies suggest that the S.E.C registration requirements had no important effect on the quality of new securities sold to the public. (Stigler, 1964a: 124)⁷³

Manne and Benston have pursued Stigler's analysis and tried to develop a systematic analysis of Securities Exchange Acts of 1933 and 1934. Their conclusions do not differ from Stigler's. Both find that government-required disclosure regulations have no positive effect on the securities traded on the stock markets. Moreover, they found that the idea that the stock market before the regulation was "a den of thieves," is purely mythological. As Benston (1969b: 517-518) states:

Thus, the need for the financial disclosure requirements that are the "heart" of the Securities Act of 1933 appear to have had their genesis in the general folklore of turn-of-the century finance rather than in the events of the 1920's that preceded the legislation, insofar as fraud and misrepresentation are concerned.⁷⁴

Moreover, contrary to S.E.C. claims, a large amount of information was provided by corporations to investors before the passage of the securities acts. Benston's studies provide important results. First, he shows that S.E.C regulation has impeded the development of improved and innovative accounting procedure that could have helped investors to have more accurate information about corporation's value.⁷⁵ He also shows that S.E.C-required disclosure does not provide investors with valuable information; that is, information relevant for investor's

⁷¹ Stigler (1964: 120).

⁷² See Stigler (1964: 121).

⁷³ See also Stigler's reply (Stigler, 1964b: 419) to Friend and Herman's criticisms (Friend and Herman, 1964) of Stigler's conclusion in which he reaffirms his previous conclusion:

The data revisions and the new analysis do not call for amendment of this conclusion.

⁷⁴ See also Benston (1973: 134-136), Benston (1982: 185-188), Manne (1974: 26-28).

⁷⁵ See Benston (1969b).

decision-making, because, in particular, information provided in financial reports is already known.⁷⁶ Benston's final conclusion concerning the government-required disclosure effectiveness in increasing investor's access to relevant information is as definitive as Stigler's one:

The overall conclusion ... must be that the SEC's accounting disclosure requirements are of small, if any, relevance to investors, so far as helping them estimate the future value of their stock purchases. (Benston, 1969a: 50).

Moreover, Benston and Manne show that SEC's regulations impose large costs on corporations. In particular, they show that the costs supported by small corporations being comparatively higher may have played a role of restricting the entry of new firms and preventing investment in risky but possibly successful ventures.⁷⁷

Easterbrook and Fischel (1996) show that there exist various voluntary mechanisms that would provide to investors with valuable information in a market without legal intervention. Consistent with a signaling model, they show that the cost of signaling quality being lower for higher-quality securities issuers, they will have incentives to identify themselves. Moreover, as we have previously said about quality and safety, "some of the firms' managers and promoters are repeat players and thus will seek to preserve their reputations by telling the truth."⁷⁸ Easterbrook and Fischel (1996: 282) show that firms have various ways to convince investors of their quality:

[High-quality firms may] allow outsiders to review the books and records and have these outsiders certify the accuracy of the firms' representations. (...) Similarly, firms may sell their securities through investment bankers who inspect firm's prospects, put their money on the line in buying the stock for resale, and put their reputations on the line in making representations to customers. (...) Firms may take actions and make commitments that render their disclosures more believable. One is to ensure that their managers hold substantial quantities of their stock. This can be accomplished by stock options or by "cheap stock" when firms goes public, as well as by inducing managers to buy in the market. If the firm does poorly, the managers will lose with the other investors. The higher the quality of the stock, the more of it managers will be willing to hold in undiversified portfolios; the more managers hold, the more willing other investors will be to believe the firm's statements. Another action open to the firm is to issue debt, which (a) forces the managers to pay out the profits, and (b) if there are no profits, forces the firm into bankruptcy. Compulsory payouts ensure that the managers return to the capital market for funds, and investors may check up on their

⁷⁶ See Benston (1982: 188-190) and references accompanying text. Another explanation advanced by Benston is that SEC's accounting disclosure requirements and the mandatory harmonization of accounting procedures expunged all subjective information from financial reports that would have been relevant for investor's decision-making.

⁷⁷ Benston (1969a: 60-73).

⁷⁸ Easterbrook and Fischel (1996: 281).

performance before recommitting funds. (...) Of course, managers could warrant their statements in the traditional way: make a legally enforceable promise (perhaps backed up by an insurer) to pay the investors if the firm does worse than promised (perhaps, say, in a comparison against a market index).

More recently, we can observe with the development of internet that firms voluntarily disclose a large amount of information to their investors or potential investors through their own web sites without any government requirements. There are also a wide variety of web sites providing various kinds of information about listed corporations on stock exchanges.⁷⁹ There are also chat rooms, forums, mailing lists, and investment clubs on which people exchange their information, opinions, and advices on corporations and investment prospects.

Easterbrook and Fischel also identify other market-based methods of disclosing relevant information to investors. Among them, there are informational intermediaries such as underwriters, which will price the securities appropriately, accountants who will put their reputations behind the accuracy of a firm's disclosures. Informed traders such as brokers, analysts or money managers who purchase information from the corporation and diffuse information about the firm through their transactions act also as informational intermediaries.⁸⁰

Finally, there are also the organized exchanges, which have incentives to adopt rules governing trade that operate to the benefits of investors because their success depends on the amount of trading. Stock markets have incentives to establish rules that maximize the amount and type of information that investors demand; that is to say, relevant information for the investment decisions. In addition, the competition between organized exchanges induces them to adopt beneficial rules. As Easterbrook and Fischel explain, firms have incentives to list their securities on exchanges adopting rules that maximize investors' wealth and to comply with these rules because they will have a competitive advantage in attracting capital.⁸¹ It is the kind of voluntary process that we currently observe among organized exchanges. The New York Stock Exchange, for example, sets rules governing disclosure of information and the issuance of new stock by listed firms, attracting business at the expense of other methods of trading. As Benston (1973: 133) reminds us, before the federal legislation, the NYSE has an especially elaborate program

⁷⁹ The information provided by these web sites are such stock prices, market performance, rate of CEO's turnover in the corporation, announcement of news produced, rates of sales, etc.

⁸⁰ See Easterbrook and Fischel (1996: 292-294).

⁸¹ See Easterbrook and Fischel (1996: 294-296).

requiring detailed disclosure at the time stock was issued and annually whether or not the firm sold new securities.

From a comparative institutional analysis, a justification of government-required disclosure based on agency-problems argument does not seem to hold. As we have seen there are significant theoretical and empirical that government regulations of information disclosure cannot enhance investor's access to relevant information and does not contribute to resolve agency problems that may occur between the investors and corporations' management. Moreover, it appears that there exist a wide range of private voluntary mechanisms that allow investors to acquire information about the quality of corporation's securities and to make a distinction between high and low-quality securities.⁸²

As we have previously argued, in order to be able to reach appropriate economic-conclusions when analyzing agency problems, it is necessary to take into account the institutional environment in which such agency problems occur. It is the only appropriate method to assess the relative superiority of a particular property-rights system over another in resolving agency problems. As we have seen through few examples, it is far from evident that, from a comparative institutional analysis, a system characterized by government interventions is superior to a system in which individuals rely upon private-voluntary mechanisms to cope with agency problems. Moreover, it appears that such an analysis framework will enable theorists to link the theoretical and empirical agency literature.

4 Universal vs. Contingent Agency Problems

In the continuation of our analysis of the practical significance of agency-problem analyses, we can observe that agency models do not introduce any distinction in the origin of these problems. Indeed, it appears that these models (maybe unwittingly) implicitly assume that the nature of these problems is in some way uniform and the cause of these problems has a common origin. In other words, the existence of such problems would rest only in the imperfect nature of the world and the division of labor and knowledge. Such assumption would lead to believe that agency problems, considered as a body, emerge independently of the economic organization or property rights system in which they occur.

⁸² Again, we should emphasize that we do not argue that private voluntary mechanisms work perfectly or that in a market economy without government intervention there won't be fraud at all. We do not argue also that people won't make error.

Therefore, it is difficult to draw any conclusion in terms of economic policy on advocating or reforming some economic organization or property-rights system because they are more prone to generate particular agency problems.

Again, it seems that this limit of agency theory finds its origin in its failure to incorporate the property-rights system in the analysis framework and, in particular, to compare the nature of agency problems under different property-rights systems.

It is our argument that a comparative institutional analysis would allow agency theory to identify the origin of some agency problems besides the simple existence of uncertainty and division of labor and knowledge. Considering the economic system in which contractual relationships are developing would allow agency theory to make a distinction between problems emerging independently of the economic organization or property-rights system in which they occur from problems contingent of the economic organization in which they occur. In other words, a comparative institutional analysis would enable agency theory to distinguish between universal from contingent agency problems.

There is no doubt that any type of property-rights systems is confronted with informational problems. Uncertainty, risk, ignorance, contradictory interests pervade contractual relationships and therefore individuals are confronted with moral hazard and adverse selection all the time. However, the nature of property-rights system may create some problems that are peculiar to a property-rights system or an economic organization.

Some examples would enable us to shed new light on the different nature of agency problems.

The previous examples we have analyzed illustrate perfectly our case that universal agency problems exist independently of property-rights system in which they occur. Arrow (1963) was very explicit on this matter. The presence of "moral hazard" is not a phenomenon characteristic of the market economy; it is present in any economic systems. Governmental programs are no less subject to the problem of moral hazard.⁸³

We can find the first example of contingent agency problem in the debate on the socialist economic calculation. Mises shows that informational and incentive problems are greater in a

⁸³ To be sure, Arrow considered that governmental programs were better able to cope with adverse-selection problems. However, as we have seen, such a contention is far from evident.

socialist economy than in a market economy.⁸⁴ Mises shows that, in a system of public ownership of means of production, because the State is the only owner of the means of production, socialist managers do not have incentives to make value-maximizing decisions because the incentives mechanisms of a market economy do not exist. Mises goes farther and argues that the State cannot even evaluate whether manager's decisions are value-maximizing or not since in a socialist economy there is no profit-and-loss discipline. As Mises demonstrates, in absence of private ownership of means of production, there is no exchange and consequently no monetary price. Therefore, in absence of monetary prices, socialist enterprises cannot calculate profits and losses that will allow them to assess the monetary value of manager's decisions. Without a profit-and-loss mechanism, the State cannot sanction or reward manager's decisions and consequently the incentive mechanism is completely expunged. The ultimate consequence is that managers are free to adopt discretionary, non-value-maximizing behaviors. The economic calculation argument is ultimately the argument used by Mises to explain the problem of the bureaucratic behavior.⁸⁵ By comparing different economic organizations framed by different underlying property-rights systems, Mises identifies the bureaucratic behavior as a behavior characteristic of public/State enterprises based on public ownership of the means of production. Public enterprises lacking economic calculation and profit-and-loss mechanism are preys of bureaucratic behaviors. On the contrary, in a private enterprises based on private ownership of means of production are not marked by bureaucratic behaviors.

Mises' analysis of bureaucratic behavior does not stop to a comparison between the market economy and the socialist economy or between private and public enterprises. He also makes a comparison between the market economy and the hampered economy, i.e., the interventionist system. He also explains the bureaucratic behavior that we do not find in a market economy emerges in the interventionist system resulting from government interventions in owners' freedom to exercise non-coercively their property rights and freedom to contract. He explains that not only government interventions defined as providing privileges to particular individuals at the expense of others give rise to bureaucratic behaviors but also that individuals, in order to secure privileges arising from government interventions, have a tendency to reallocate resources, which

⁸⁴ See Mises (1990a).

⁸⁵ See Mises (1983).

in the market economy would have been allocated to consumer's satisfactions, to privilege-seeking.⁸⁶

Another example of contingent problem is the case of bad money and Gresham's law used by Akerlof to illustrate his own case of adverse selection in the market for lemons. Typically, Gresham's law states that "bad money drives out good money out of circulation." Here, we are confronted with a typical misrepresentation of Gresham's law and a perfect illustration of how conclusions can be erroneous when the property-rights system is not incorporated in the analysis framework. As Rothbard argued, Gresham's law "has often been argued to attack the concept of private coinage as unworkable" and thereby to defend the State's monopoly of the minting business.⁸⁷ Actually, it appears that Gresham's law does not apply to a market economy.⁸⁸ This problem is particular to a system where the State interferes with currency through legal tender quality. As Mises explains, Gresham's law is a product of the State. It results from the fact that the government made illegal to discriminate in trade and in the settlement of deferred payments. Gresham's law should be stated as "the money which the government's decree has undervalued disappears from the market and the money which the decree has overvalued remains."⁸⁹ In a market economy characterized by the respect of property rights and contract, those minters who resorted to substituting baser and cheaper metals for a part of the precious metals while retaining the customary face and name of the coins will be prosecuted for fraud. Moreover, reputation mechanisms will deter minters to try to cheat the public because people will go to mint their coins with private minters who have established a reputation for probity and efficiency.⁹⁰

As a last example to illustrate our case on the existence of agency problems which are contingent upon the property-rights system in which they occur, we should deal with the effects of government interventions in the banking system and with the recent debate about banking regulation and, in particular, capital adequacy regulation – the imposition by regulators of minimum capital standards on financial institutions. Dowd (1996, 1997, and 1999) and Benston and Kaufman (1996), while disagreeing on the conclusions about the necessity of capital adequacy regulation, provide us with an important comparative institutional analysis of the

⁸⁶ See Mises (1990b: 206-207).

⁸⁷ See Rothbard (1977: 80-81).

⁸⁸ See Mises (1998: 775-777).

⁸⁹ See Mises (1998: 447).

⁹⁰ See Rothbard (1977: 81).

banking system and show how moral-hazard problems regarding banks' capital strength are characteristics of the interventionist system.

Dowd presents us how a laissez-faire banking system, operating on a convertible commodity-based monetary system, will work with no lender of last resort and state-run deposit insurance system and how such a system would be stable.⁹¹

Banks are not different from corporations and, like corporations, they are subject to competition from other banks to gain and retain depositors' confidence. Depositors' confidence is a crucial variable in the long-term survival of the bank. If depositors believe that their funds are unsafe and they risk losing their deposits if their bank fails, they may be inclined to withdraw their funds and perhaps redeposit them elsewhere. Therefore, bank managers would have incentives to adopt particular policies to signal their soundness to depositors and, consequently, retain their confidence. They will pursue conservative lending policies, submit themselves to outside scrutiny, and publish audited accounts like corporations listed on the stock markets. They will also maintain adequate capital by ensuring that its equity capital is large enough relative to its assets base and other relevant factors in order to be able to absorb any plausible losses and still be able to repay depositors in full. Again banks' interest is not being driven out of business. If they are not capitalized enough, they will face a run and quite possibly will be driven out of business.⁹²

To be sure, banks may have a tendency to reduce bank capital to maximize shareholder value since the lower bank's capital, the higher the expected return on each share. However, competition between banks will mitigate this problem and "should then ensure that banks converge on whatever degrees of capitalization their customers demand (and, by implication, are willing to pay for in terms of accepting lower returns on their deposits)."⁹³ Competition should lead to an optimal capital ratio which strikes an appropriate balance between protecting depositors, on the one hand, and promoting shareholder return, on the other.

From an empirical perspective, there are many historical evidences that a laissez-faire system would maintain adequate level of capitalization and banks in such a system face low probabilities

⁹¹ See Dowd (1996: 680-681) for further development on the characteristics of a laissez-faire financial system. See also Dowd (1997: 96).

⁹² See Dowd (1996: 681) and Dowd (1997: 96).

⁹³ Dowd (1996: 681).

of failure. As Dowd tells us, before the Civil War, US banks had capital ratios in most years of over 40%. Moreover, in the same period the US banks appear to have been safe.⁹⁴

On the other hand, in a system in which the government intervenes through establishing a central bank to provide lender of last resort (LLR) and a state-sponsored system of deposit insurance, moral-hazard problems, which would not exist in a free-banking system, begin to emerge.

First, the existence of a lender of last resort to provide liquidity to banks that cannot otherwise obtain has the effect of protecting bad banks from the consequences of their own actions; that is to say, greater risk-taking and maintaining weaker capital positions. Moreover, since the bank central protects bad banks from failing and is always here to bail them out, good banks do not have incentives to maintain their financial strength in the prospect of winning weaker banks' share when they will fail. In consequence, even the good banks have the tendency to adopt the same strategies than weaker banks, thus creating a general financially instable system. In other words:

The LLR can then produce the very instability that proponents of central banking often claim would arise under free banking. In fact, someone who observed this instability might easily attribute it to the market itself, and in reality, undermining it. A major cause of banking instability – the LLR – could easily be mistaken for its cure – and, unfortunately, often is. (Dowd, 1996: 683).

The state-sponsored system of deposit insurance enhances the effects of a lender-of-last-resort system. With a system of deposit insurance, depositors' incentives to monitor their bank management are gone. They do not need anymore to worry about their banks' capital strength. On the other side, with a system of deposit insurance, banks' managers do not need anymore to take into account the depositors' confidence as a parameter in their management policy.

The immediate consequence is that banks will have a tendency to reduce their capital since their main objective becomes to maximize shareholder value.⁹⁵ Moreover, competition between banks for market share will magnify this tendency by "compelling" good banks to imitate the bad ones, which reduce their capital ratio to cut their costs and transfer some of the benefits to

⁹⁴ See Dowd (1996: 681) and references accompanying text.

⁹⁵ Dowd (1996: 683).

depositors by offering them higher rates interests. The general consequence is that the whole banking system becomes financial unsound and more likely to fail.⁹⁶

The second consequence of a system of deposit insurance is that it affects banks' attitude toward risks. Banks will have a tendency to take more risks because if the risks pay off, then they keep the additional profits and if they do not, part of the cost will be passed on to the deposit insurer. Therefore, Dowd (1996: 683) concludes:

The bank takes more risks and becomes even weaker than its capital ratio alone would suggest.⁹⁷

As we can see Dowd and Benston and Kaufman show that the government interventions in the banking system generate moral-hazard problems that won't exist in a free-banking system.⁹⁸

These analyses have produced another debate on the necessity of capital adequacy regulation; that is to say, the government imposition of minimum capital standards on financial institutions to strengthen the safety and soundness of the banking system and to response to the moral-hazard problems that government-sponsored system of deposit insurance creates.⁹⁹

Dowd shows that actually such a regulation may create another moral-hazard problem between the bank and the regulator:

The proponent of capital adequacy regulation must also come to terms with certain problems that it creates, and a key problem in this regard is that banks might respond to capital adequacy regulations by taking more risks or rearranging their portfolios to achieve the kinds of risk-return tradeoffs they are seeking: capital adequacy regulation can create a moral hazard problem and encourage banks to react in ways that not only undermine the achievement of the regulators' claimed objectives (e.g. greater bank safety), but in some cases can make banks even less safe than they would otherwise been. (Dowd, 1997: 99-100)

The moral hazard problem lies in the conflict of interest between the bank and the regulator. The regulator wants to make the bank safer and consequently reduce risk of having to bear the costs of bank's failure. On the other hand, the bank wants to maximize its expected returns. The consequence of this conflict of interest is that the bank under a capital adequacy regulation will

⁹⁶ See Dowd (1996: 683).

⁹⁷ See also Benston and Kaufman (1996: 693).

⁹⁸ It is necessary to point out that actually Benston and Kaufman, while showing that a deposit-insurance system creates moral-hazard problems, still argue in favor of a deposit-insurance system. See Benston and Kaufman (1996: 693). For a criticism of the reasons advanced by Benston and Kaufman to justify a deposit-insurance system as well as a central banking system, see Dowd (1996: 684).

⁹⁹ See Benston and Kaufman (1996: 694).

try to find alternative strategies to circumvent the regulation and still maximize its expected returns. Dowd gives some examples of such ways. For example, the bank can make riskier loans or they may respond by making more fundamental realignments their portfolio, such as by taking appropriate off-balance-sheet positions, which is more difficult to control by the regulators.¹⁰⁰ Therefore, the moral-hazard problem created by the deposit-insurance system is not reduced through capital-adequacy regulation but actually is amplified by capital-adequacy regulation in the sense that banks adopt strategies that are more difficult to control than the problem of risk-taking.

As we have seen, the government interventions in the financial system create further moral-hazard problems, contingent moral-hazard problems, between the banks and the regulators that won't exist in a free-banking system. More precisely, the government interventions have the effect of "transferring" the moral-hazard problems that would exist in a free-banking system between the bank managers and their shareholders and between the bank managers and the depositors. However, as Dowd shows, these moral-hazard problems differ in nature. Moreover, under a regime of free banking, these moral-hazard problems can be mitigated through market-forces discipline and actually, empirical studies show that these moral-hazard problems were quasi-inexistent. On the other hand, under an interventionist system, the government is confronted with moral-hazard problems that it is unable to resolve even through further regulations, which actually worsen these moral-hazard problems.

The comparative institutional analysis that we have applied to few examples has enabled us to show that the nature of agency problems is not uniform and these problems do not have necessarily the same origin; that is to say, the division of labor and knowledge. If it is true that there are universal agency problems, namely problems that occur in every property-rights system, there are also problems that are contingent to the property-rights systems in which they occur. As we have seen, there are additional moral-hazard and adverse-selection problems that emerge when government intervenes in the market economy; problems that do not exist in the free market.

There is no doubt that agency problems are ineradicable, they are latent in any contractual relationships and it is one of the contribution of agency theory to show that when individuals want to contract, they must integrate this "variable" when they design the contract. However, as

¹⁰⁰ See Dowd (1997: 100-101).

we have argued above, agency theory fails to identify the origin of agency problems because it overlooks the institutional framework in which such relationships take place and consequently is unable to distinguish between universal and contingent agency problems. In consequence, agency theory can only pronounce few valid economic-policy conclusions.

5 Toward a Counterfactual Theory of Agency Problems

As we have just seen with few examples, a comparative institutional analysis enables us to show that some conclusions hold by standard agency theory or economists who use standard agency theory to derive economic-policy conclusions actually are not as robust as expected.

These analyses are important in the extent they show that particular legislations make agency problems greater or create new problems. But this fact is in itself, from an analytical point of view, less important than the fact that the legislations in question usually violate private property rights. In other words, our argument is that instead of considering the causal relationship between these legislations and agency problems, we should consider the causal relationship between expropriation and agency problems. And this latter fact can only be grasped in the light of the counterfactual laws of property economics; that is to say, economic laws concerning the relationship what individuals actually do (in the particular property-rights system in which we are evolving) and what they could have done instead (in another property-rights system such as, for example, the free-market).¹⁰¹ In short, even if the comparative institutional analysis is an important analytical tool for analyzing agency problems, the counterfactual expropriation analysis is even more important and should precede the comparative institutional analysis.¹⁰²

It is also only through a counterfactual expropriation analysis that we can derive a counterfactual theory of agency problems which states these counterfactual laws between appropriation and agency problems.

Now, it is important to underscore that there is a long tradition of economists who have contributed to the counterfactual expropriation analysis allowing us to develop a counterfactual theory of agency problems. This tradition goes back to Condillac¹⁰³ and has been revived and

¹⁰¹ See Hülsmann (2001).

¹⁰² The author would like to thank Guido Hülsmann for drawing his attention to this point.

¹⁰³ To this respect, Condillac's Commerce and Government is exemplary. He undoubtedly anticipates modern proponents of comparative institutional analysis such as Coase. In the introduction of his book, Condillac exposes his methodology (Condillac, 1966: 247):

modernized through the theories of economic regulation and rent-seeking by Becker (1983), Peltzman (1989, 1993), Posner (1974), Stigler (1971), and the public-choice-tradition economists.¹⁰⁴ Therefore, we must rely on their work to expose our comparative theory of agency problems.

A counterfactual theory of agency-problems is based on three assumptions. The first is that all individuals are self-interested; that is to say, their objective is to "maximize" their satisfactions and consequently, conflicts of interests may arise. The second assumption is that informational asymmetries and uncertainty are pervasive facts of life. The third and most important assumption is that government interference in a property-rights system is always coercive; that is to say, it means either violent action or the threat of such action. In other words, when government intervenes in a property-rights system, its action necessarily implies a violation of property-rights and freedom to contract.¹⁰⁵

We can derive from these three assumptions two subsidiary postulates. First, government interventions force individuals to use their property in a way different from what they would have resorted to if there was no government intervention.¹⁰⁶ Second, because politicians are self-interested maximizers of votes, they can be influenced by interest groups through provision of financial or other support during the regulatory process.¹⁰⁷

A counterfactual theory of agency problems teaches us that, in a market economy, because individuals are self-interested maximizers, they have a strong interest in resolving conflicts of interest and minimize the burden of costs generated by agency problems. When individuals contract it is because they expect to benefit from contracting. Therefore, individuals have an interest in minimizing agency costs because if one or the other party expects that the burden of costs compared with the benefits resulting from contracting will be too important for her, she does not contract. Individuals have consequently interest in minimize their divergence of interests.

This work is in three parts. In the first part, on commerce, I produce basic ideas which I determine according to assumptions and I develop the principles of economic science. In the second part, I make other assumptions to judge the influence which commerce and government must have on each other. In the third part, I consider them both according to the facts in order to rest as much on experience as on reasoning.

¹⁰⁴ See, for example, Buchanan (1999) and Tullock (1993).

¹⁰⁵ See Mises (1998: 715).

¹⁰⁶ See Mises (1998: 714).

¹⁰⁷ See Peltzman (1989: 1). We are not here concerned with the form of government. As Tullock (1993: 22-23) points out, if it is true that public-choice tradition deals mostly with democratic governments, it would be a mistake to assume that such problems do not appear in dictatorships.

Our theory teaches us that, in an economy where freedom to non-coercively exercise their property rights and to contract is respected, self-interested individuals, prompted by their will to minimize agency costs, use a wide variety of voluntary mechanisms to make up for their lack of information. They have implicitly or explicitly recourse to voluntary processes such as reputation and competition mechanisms in order to mitigate informational-asymmetry problems. In addition, our theory shows that individuals constantly create and have recourse to new voluntary mechanisms to make up for the lack of information and, therefore, avoid agency problems.

In the market economy, if it is true that informational asymmetries are never totally eliminated and agency problems are never totally eradicated, it is nevertheless the case that individuals, by means of voluntary processes succeed in mitigating these problems and minimizing agency costs in order to benefit from contracting. Their "common interest," namely, to satisfy their own interests, prompts them to voluntary "join forces" to resolve their conflict of interests and avoid agency problems.

A counterfactual theory of agency problems teaches us also that, as soon as the government meddles with the market economy by means of orders and prohibitions, voluntary processes used by the individuals to minimize agency costs lose their effectiveness when these orders and restrictions compel these mechanisms to work in a way different from they would have in the unhampered market. An example of such a phenomenon is when the competition for capital control is hampered by the regulation of takeovers, which, for example, imposes the acquirers to disclose their acquisitions to the S.E.C after they have bought more than 5 percent of outstanding shares on the open-market. Such a regulation gives time for the target-corporation managers to adopt anti-takeover strategies. In this situation, managers feel protected; they are no longer deterred from adopting moral-hazard-type behaviors.¹⁰⁸

Second, when government interferes in the market economy, the "common interest" that motivates individuals to "join forces" to minimize agency costs disappears. Politicians and regulators are self-interested maximizers of votes; their objective is to secure and maintain political power. They consequently have an interest in making a bargain with individuals or groups of individuals that can help them to secure and maintain this political power for exchange of enacting regulations that will provide these interest groups with rents (privileges) often at the

¹⁰⁸ See 15 U.S.C. §§ 78m (d)-(e) and 15 U.S.C. 78n (d)-(f). See also amended Sections 13(d)-(e) and 14(d)-(f) of the Securities Exchange Act of 1934 that includes now the 1968 Williams Act.

expense of others. They do not act in consumer or elector's interests but rather in the interest of the group that will help them stay in power. As a result from this phenomenon, individuals are confronted with a moral-hazard problem that does not exist in the market economy. Individuals cannot control whether the politician (or the regulator), when he enacts a regulation, acts in their interest or in the interest of a particular group of individuals. Another consequence of such a phenomenon is that the regulation is often diverted from its original purpose, namely, to reduce agency problems. The regulation does not reduce agency problems but enhance them. And sometimes it even creates new ones.

In addition, a new moral-hazard problem is added to the previous one. The opportunity to capture rents by means of regulations incites people to compete between each other to be granted a privilege at the detriment of the others. With the government interfering with the market, individuals no longer seek to minimize agency costs by means of satisfying each other interest in order to better satisfy their own interest. They actually try to satisfy their own interest to the detriment of others. An example would be the relationship between shareholders and managers. Some of the resources previously allocated for the purpose of corporation-value increase (profit-seeking) will be reallocated to politician/regulator's satisfactions (rent-seeking) to obtain regulations that allow managers to adopt defense measures to thwart takeovers without shareholder's consent.¹⁰⁹

Third, there is another moral-hazard problem that emerges in an economy characterized by government interventions. It is a moral-hazard problem that emerges between the regulator and the regulated. As a consequence of the regulation, the regulated will try to find ways to escape the regulation. As a result, the regulation does not have any impact whatsoever on the agency-problems it was supposed to resolve when it does not worsen them.

Our comparative theory of agency problems allow us to explain how, in a market economy, individuals animated by a "common interest" manage by means of voluntary mechanisms to minimize agency costs. Second, it shows what the effects on agency problems are as soon as government interferes with the market economy. It teaches us how individuals react to government interventions, how individuals interact with government, and what the repercussions of such a reaction and interaction are when we analyze agency problems.

¹⁰⁹ See Buchanan (1999) on this phenomenon of shift from profit-seeking to rent-seeking and its consequences.

6 Conclusion

The purpose of this paper was to assess the practical relevance of agency-theory models. Our main conclusion is that, while we cannot deny the important contribution of agency models in underscoring the existence of information problems, agency-theory practical relevance is weak because it is unable to provide practical conclusions with regard to agency problems. Following Coase's criticism of market-failure theory, we explain that agency theory suffers from the same symptoms, that is to say, it does not engage in comparative institutional analysis.

We show that a comparative institutional analysis casts doubt on the current economic-policy conclusions regarding the ability of the market to mitigate information asymmetries and minimize agency problems.

We also point out that the comparative institutional analysis suffers also its own limits in the sense that its analyses are usually based in a particular historical and institutional context. We argue that there are counterfactual laws relating agency problems and expropriation that can only be discovered through a counterfactual appropriation analysis. It is such a counterfactual appropriation analysis that allows us to develop a counterfactual theory of agency problems.

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