Corruption and optimal regulation under common agency

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Abstract

I show that it is optimal to separate non-benevolent regulators when regulated projects are large. Separation prevents regulators from coordinating to appropriate all of the agent's informational rent when they know the type of the latter; therefore, there is a trade-off between saving on informational rent and efficiency, since the game between the regulators induced by separation causes further distortions when compared to the allocation under one regulator. When the informational rent at stake is large due to the size of the project, separation is the optimal institutional answer.
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Resumo

Mostro que separar reguladores não-benevolentes é a resposta institucional ótima quando os projetos regulados são grandes. Como separação impede que os reguladores se coordenem para se apropriar de toda a renda informacional do agente quando sabem o tipo desse último, há um trade-off entre poupança de renda informacional e eficiência alocativa, pois o jogo entre os reguladores induzido pela separação gera distorção em relação à alocação com um único regulador. Quando a renda informacional em questão é grande, vale a pena a divisão de reguladores.
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1. Introduction

The objective of this paper is to discuss, based on the theory of common agency, optimal regulatory schemes when corruption is a concern. I try to give an answer, from a normative viewpoint, to why actual regulatory structures are

frequently more complex and diversified than predicted by regulation theory. The basic model of regulation, which builds on the principal–agent framework, presents the regulator as the principal in a problem where the agent is responsible for a socially relevant project. The literature on contract theory and common agency shows that, under fairly general conditions, the best contract is centralized: it is written by only one regulator. There is an efficiency loss under multiple regulators. The question that motivates this paper may be rewritten as: why several activities in the world are under the responsibility of multiple regulators? If this actually means multiple principals, then this multiplicity is regarded by the literature as sub-optimal.

The literature on capture offers an answer.[1] It may be optimal to separate regulators when they may collude with the agent in order to appropriate public resources. A simple way to model this effect is to drop the assumption of complete contracts,[2] which may be written by the regulators themselves, possibly corrupt. In this case, the resulting coordination problem may be beneficial as it decreases the rent lost to corruption. One problem with this model is that if the regulator is corrupt, he will not write a contract that maximizes social welfare in the first place. Laffont and Martimort (1999) justified this approach based on a model in which the agent's type may be unveiled due to some technology operated by regulators. These latter are corrupt, while the central authority that writes the contracts is benevolent. Their paper shows that separating monitoring technologies among regulators increases welfare. However, their model assumes centralized contracting: only the central authority writes contracts, and the middleman is defined as the regulator. The contribution of the present paper is to determine under which conditions it is worth to split not only monitoring technologies, but also the power to write contracts.

The motivation for a model of incomplete contracts lies in the fact that actual regulatory agencies are responsible not only for transferring information for a benevolent representative of society, who would ultimately write all contracts in the country, in all fields. This representative, if it exists, must transfer at least part of the power to write contracts to specific departments that are responsible for dealing with information restrictions.

In this context, I show that separation is not necessarily better than integration of regulators. Still, separation is the optimal choice as long as it decreases corruption (with respect to integrated regulators) in the sense of Laffont and Martimort (1999). Therefore, it may be the best institutional answer in some cases. I relate the choice of the optimal regulatory structure to the size of regulated projects.

Separation is more beneficial for large projects, whilst integration is better for small ones. This result is in line with a fact observed in several societies: larger projects are submitted to a more complex bureaucracy. A tribe of Indians does not reproduce the governmental structure of a country in small scale; it has a much simpler bureaucratic structure. When a project is large, the problem of corruption is worsened, since the rent at stake is also large. Hence, it may be better to accept some lack of coordination among bureaucracies so that the problem of corruption is smaller. Naturally the division of bureaucracies due to technical specialization plays a role, but corruption is also a driving force.

The present paper relates to two major strands in the literature that help understand the internal organization of governments. The first is the literature on multiple principals, or common agency. Bernheim and Whinston (1986) established, in a moral hazard framework, a basic result: under asymmetric information, the equilibrium under competing principals is less efficient than the equilibrium under centralized contracting. This happens because each principal free-rides on the payment made by the others to elicit effort from the agent.[3] Martimort (1992) and Stole et al. (1991) extended this result to an adverse selection setting, as in the setup I use.[4] Moreover, I use the delegation principle developed in Martimort and Stole (2002) as it is not possible to apply directly the Revelation Principle under multiple principals. Martimort and Stole (2009) established the differences in intrinsic common agency games, as studied in the present paper, in which the agent must decide between all contracts or no contract, and delegated agency, in which further distortions arise as the agent may choose only some contracts. Bond and Gresik (1996) and Calzolari (2001)

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[1] See Martimort (1996) for a detailed discussion.

[2] In capture models, the assumption of centralized contracting is usually set in a three-layer model: the benevolent principal writes the contract; the privately-informed agent implements the project; and the corrupt regulator (a middleman) may learn the agent's type and pass this information on to the principal under the correct incentives.

[3] Under complete information, there are multiple equilibria, including the first-best allocation.

[4] For a complete discussion of common agency games, see Martimort (2007).