3 Rules versus standards

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Just like contracts, laws are of necessity incomplete. Lawmakers cannot effectively foresee all the particular circumstances to which their laws could apply. Incompleteness of law is not only a matter of unavoidable necessity. At times, incomplete laws can be purposefully enacted as a way to delay the decision-making process, transferring to the judiciary some of the tasks otherwise carried out *ex ante* by the legislature. Lawmakers can choose the level of incompleteness of the laws that they write by formulating laws with different degrees of specificity. The law and economics literature refers to the choice of specificity of legal rules as a choice between “rules” (laws with high levels of specificity) and “standards” (laws with low levels of specificity). The present study concerns the functionality of these rules or standards, the consequences of their incorporation into laws, and their significance from an economic perspective.

A “standard” is the legal or social criterion that adjudicators use to judge actions under particular circumstances. Standards provide a greater degree of flexibility to judges and allow them to consider fact-specific circumstantial evidence, such as whether a driver’s behavior was the “reason” for an accident. While a standard like “reasonableness” can be subjective, judicial precedent may provide some guidelines for adjudication (Kaplow, 1992).

A “rule,” conversely, provides a definitive criterion for the resolution of a legal issue. Rules contain a higher degree of specificity and often bright-line tests. For instance, a rule establishes a maximum blood alcohol content for drivers. An individual who drives while above the legal limit has broken the law regardless of the surrounding circumstances. With greater specificity comes less flexibility, often at the expense of an optimal fit between the coverage of a rule and the regulated conduct.

When legislators choose between rules and standards, they must consider whether the law should be given content *ex ante* or *ex post* and calculate the costs associated with each option (Kaplow, 1992). For instance, rules require a higher degree of specificity during conception to provide a concrete framework for judicial decision making (Schwartz and Scott, 1995). The *ex ante* calculation that lawmakers must perform requires research, an upfront cost that often exceeds the cost for developing a less specific standard. Standards, however,
are more difficult to interpret, since they require determinations of the law’s content to be made *ex post*. Hence, in the event of an accident in which a driver was intoxicated, a bright-line rule would automatically assign fault to that tortfeasor. Conversely, when adjudicators must determine comparative causation, they have to consider the facts and circumstances at the time of the accident, and decide whether to impose liability. Standards provide a more fact-specific determination, but remain erratic in application over time. Thus, rules are typically optimal *ex ante*, and standards are better *ex post*.

1. The Problem of Judicial Interpretation

The optimal degree of specificity of laws has been a subject of debate for centuries. As pointed out by Parisi and Fon (2009), legal theorists have long attempted to formulate principles that guide judges in interpreting incomplete legal precepts. In 350 BC (or BCE), the Greek philosopher Aristotle realized the unavoidable incompleteness of laws. He pushed the logic of original intent to suggest that, in the process of legislative interpretation, judges should fill the gaps in incomplete legislation by discovering how the original lawmakers would have specified the rule in light of the specific facts, had they foreseen the problem and dealt with it explicitly. Jeremy Bentham (1776) approaches the question of optimal specificity of laws by creating a two-tiered system; the public learns the general rules, while judges evaluate specific cases with some leeway in interpreting the *ex ante* rules. In Bentham’s world, judicial discretion could well coexist with detailed and fully specified *ex ante* rules, because judges would have some adjudicatory flexibility when applying the *ex ante* rule to the case (see e.g. Dan-Cohen, 1984; and Parisi, 1992).

The understanding of incompleteness of law as a legislative choice variable in itself has shifted attention to the question of the optimal specificity of laws. Within the margins of reasonable foresight, lawmakers have some choice over the degree of legal rules’ specificity. Laws that are not fully specified upfront impose greater implementation and decision-making costs upon judicial and administrative bodies at a later stage. The optimal degree of specificity of law thus critically depends on the relative costs and political advantages of lawmaking by different branches of government. The evaluation of comparative advantages in lawmaking necessarily rests on the full understanding of the public choice implications of alternative allocations of lawmaking power.

Ehrlich and Posner (1973) conjecture that when the rule is statutory and the conduct to be regulated is politically controversial, the cost of promulgating a rule is highest. The formulation of a statutory rule requires negotiation among the legislators. The analysis of transaction costs in other contexts suggests that the costs of legislative negotiation are likely to be substantial due to the number of legislators whose agreement must be secured, and will be even higher when the proposed rule is controversial. Transaction costs increase with the number of
parties whose agreement is necessary for the transaction to occur. The presence of so many parameters that affect the choice of optimal degree of detail of legal rules led Diver (1983: 76) to conclude that, while some laws may better serve their purpose as rules and others as standards, “[g]eneralizations about optimal-rule precision are inherently suspect.”

Under-inclusion and Over-inclusion Problems
As pointed out by Parisi and Fon (2009), from an efficiency perspective, there are both under- and over-inclusive effects that occur when deciding to implement a rule in specific circumstances that were not specifically envisioned by the lawmaker. Ehrlich and Posner note that coupling a rule with a standard can solve the problem of under-inclusion. For example, it can thus be made unlawful to drive more than 70 miles per hour or to drive at any speed that is unreasonably fast given the particular circumstances of the case. While adding a standard to a rule can remedy under-inclusion, it can also diminish the benefits of legislating with rules, namely the low cost for adjudicators in determining when an individual has violated the rule.

When implementing a rule or a standard, there are also over-inclusive effects. The problem of over-inclusion is frequently dealt with by allowing enforcement officials to waive ex post the application of the rule or standard (e.g. speeding violations can be excused in case of emergency, etc.). Theoretically, a rule could be formulated with sufficient level of detail to contemplate all the possible exceptions, excuses and justifications. In practice, however, it may be less possible to envision ex ante all possible contingencies, or too costly to allow case-by-case exceptions to be made at the enforcement level.

The problems of over-inclusion and under-inclusion are more serious the greater the heterogeneity of the regulated conduct, and the faster the rate of change of the regulated environment. Kaplow (1992) suggests that even an activity that may appear homogeneous and objectively ascertainable, such as speeding, contains overriding elements of heterogeneity. The reasonableness of speeding depends on the particular circumstances of the case. A single speed limit, or even a number of speed limits set contingently in consideration of particular circumstances, would by necessity lead to occasional under-inclusiveness or over-inclusiveness. Social losses can occur when parties are deterred from undertaking socially desirable actions in the belief that they may be sanctioned by a seemingly over-inclusive standard or when parties participate in undesirable behavior not explicitly covered by an overly detailed, yet under-inclusive, rule (Kaplow, 1992). These costs fluctuate depending on the relative value and externalities produced by the regulated or unconstrained activity. In this context, Ehrlich and Posner suggest that minimizing the social-loss function with respect to potential under-inclusion and over-inclusion costs
maximizes efficiency and they predict that rules will be more common in areas of homogeneous conduct.

2. **Rules, Standards, and the Social Cost of Lawmaking and Adjudication**

Law and economics scholars have often considered the criteria for determining the optimal degree of specificity of legal rules. Scholars who have entered the debate have used instruments from optimal decision theory, public choice theory, and constitutional political economy, with differing and often antithetical results. “Standards” are generally considered to provide judges and administrative agencies with more discretion when adjudicating specific cases, whereas rules provide a more rigid framework taking discretion away from the adjudicating body.

There are, of course, costs and benefits to governing with rules or with standards, and such costs should be taken into account in choosing the optimal specificity of a law. Those variables that bear on the choice of optimal degree of specificity of legal rules include the law’s intended objective, the frequency of the application of the legal rule, the total cost of lawmaking, the net social welfare, and the cost of legal advice.

The law’s intended objective is important because if the law’s purpose is deterrence of specific conduct, criminal or otherwise, rules are typically preferable (Diver, 1983: 77). This is because laws written with deterrence in mind send clear signals to the population at large that certain conduct will yield certain consequences, regardless of extraneous or mitigating factors. Where deterrence is not the primary goal, standards are often more appropriate (Diver, 1983: 77). When crimes have already been committed, for example, lawmakers may prefer to equip adjudicators and enforcers with specific standards that permit the consideration of extraneous or mitigating factors. Rules and standards may come together in this way so that rules efficiently govern conduct and standards govern punishment (see Dan-Cohen, 1984; and Parisi, 1992).

It is important to consider the frequency of a law’s application in determining optimal specificity so that lawmakers can strike the right balance between promulgation and enforcement costs. If a law is frequently applied, enforcement costs will tend to be higher than promulgation costs. This necessarily means that rules will be more efficient than standards when the law is frequently applied. Since legislators must absorb promulgation costs only once, standards have the potential to cost significantly more because adjudicators accrue enforcement costs each time there is a violation (Kaplow, 1992: 577). Rules are also more efficient when individuals frequently engage in the regulated activity, since rules are then easier to learn, which may increase compliance.

The total cost of lawmaking is another factor that economists weigh heavily in determining the optimal specificity of legal rules. Ehrlich and Posner have advanced the notion that total cost (including promulgation and enforcement
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Economists concerned about net social welfare tend to favor rules because they guarantee greater certainty, consistency, and predictability to private parties (Sullivan, 1992). Sullivan argues that rules promote judicial economies by minimizing the need for a detailed consideration of facts and circumstances each time a law is applied (Sullivan, 1992: 63).

The cost of legal advice is a final factor in determining the optimal specificity of legal rules. The cost of consulting with an attorney to determine whether certain conduct violates a standard is higher than it is for rules (Kaplow, 1992: 571). Attorneys will convey a more concrete understanding of the consequences of an actor’s conduct where rules are concerned because they are easier to apply *ex ante*. Given the cheaper cost factor, more individuals are likely to become informed in a rule-dominated regime (Kaplow, 1992: 574).

**Rules, Standards and Information Costs**

Economists note that there are information costs associated with promulgating and enforcing rules and standards, particularly with regard to compliance with rules and standards. Under rules, informed individuals can fully identify the content of the law since legal provisions are fully articulated upfront and, as a result, individuals may more easily conform their behavior to the law. Rules are precise and it is easier to conform conduct to a precise rule. A precise definition of “reasonable” conduct under a reasonableness standard has been elusive; hence, legal actors must resort to potentially expensive research that may not produce definitive answers, increasing the cost for the individual. Furthermore, standards are given content and substance only after individuals act, which increases the difficulty of pre-action decision making and decreases consistency amongst actors. On the other hand, when individuals can clearly determine the application of rules to their potential acts, their conduct is more likely to reflect the previously promulgated rules. Under rules, individuals are more likely to be informed, and under standards, individuals are likely to be relatively uninformed. Kaplow suggests that uninformed individuals act based on their best guess about how the law will apply to their contemplated conduct, whereas informed individuals act based on their actual knowledge of the law.

**Lawmaking as a Production Function: The Optimal Scale Problem**

The lawmaking process can be thought as a production process that imposes on the lawmaker the requirement to incur both fixed and variable costs. In this...
sense, the creation of the law requires the lawmaker to invest in the fixed cost required for the production of legal order. Lawmakers choose the level of fixed capital to allocate in the promulgation of a law. By choosing their fixed cost investment, lawmakers indeed choose the level of specificity of legal rules (Parisi and Ghei, 2005). The greater the law’s specificity, the more costly it is to promulgate. However, less flexibility results in a less intensive fact-finding process, reducing implementation costs by courts and administrative agencies. Thus, increasing the fixed investment (i.e. the degree of specificity) lowers the variable implementation costs of adjudication.

The choice of a well-specified rule is likely to require a larger upfront investment, but has lower operating costs later. Enacting a rule requires a large outlay in the initial acquisition of information, but because the rule is simple to understand and apply, the operating costs are low. A standard requires a smaller initial investment, as it requires less information and legislative detail to enact. However, it requires larger outlays in its enforcement, in that it costs more for individuals to acquire information about a standard and requires greater implementation and interpretation efforts by the courts.

Kaplow suggests that regulation is sometimes served better with a rule, and at other times is better served with a standard, depending on frequency of application of the relevant law. For legal issues that arise frequently, in settings with common characteristics, a law with a greater level of specificity (e.g. a 65 mph speed limit) would be preferable to a more generic legal standard of conduct (e.g. drive at a reasonable speed). Because learning about a rule is less costly, individuals may spend less in learning about the law and may be better guided by a rule, since the law’s content can be readily ascertained (Kaplow, 1992).

Conversely, where legal issues rarely arise and the circumstances are varied, designing a rule that accounts for every relevant contingency would be wasteful, as most of such hypothetical circumstances would never arise in actual cases. Designing a negligence rule that could take into account each unique situation ex ante would be prohibitively expensive, if not impossible (Kaplow, 1992). Since rules have a higher fixed cost than standards, whereas standards generally have a higher variable cost, Kaplow shows that when frequency is low, a general standard is preferable.

Fon and Parisi (2007) model the choice of optimal specificity of laws, denoted by \( s \), as a function of the frequency of application of the law, denoted by \( N \) and a number of exogenous parameters, such as obsolescence, denoted by \( o \), the degree of specialization of the court \( c \), the complexity of the environment \( k \) and coordination cost using existing legislation \( h \). Lawmakers choose the specificity level to maximize the net total value of the legislation, measured as the average value of the law \( V \) net of the production cost function of lawmakers. The production cost of legislation is the sum of a fixed cost component, denoted
by $F$, and a variable cost component, denoted by $C$. Analytically, the objective function of lawmakers takes the following form:

$$\max \_s \ NV(s,o) - F(s,h,k) - NC(s,c,k)$$

The degree of specificity $s$ impacts positively on the value of the law: the more specifically detailed is the legal issue, the more informative it is and the greater is the value of legislation. At the same time, the more detailed the law, the higher the fixed costs $F$ incurred by the lawmaker in promulgating the law, and the lower the marginal cost of implementation and adjudication of the law, $C$. The frequency of application of the law $N$ impacts on the net social value of legislation: the higher the application frequency, the higher is the value of the law and the higher are the implementation costs of the law.

Fon and Parisi (2007) show that the frequency of application of a law is a crucial determinant of the optimal level of specificity. Consistently with Kaplow (1992), rules (i.e. laws that are well-specified) are more efficient than standards, when that legal issue arises often in settings characterized by common traits. The reason is that a higher upfront fixed cost of promulgation will consistently reduce the adjudication cost required for implementation. Additionally, the more specific the law, the easier it will be for individuals to learn the law. Conversely, standards are more efficient than rules, when that legal issue occurs rarely or in settings with varied traits. In these circumstances, in fact, it would be very expensive to design a law that would fit every relevant contingency in a complex environment.

Addressing the lawmaking problem of the specificity level of legislation allows us to identify and characterize the different patterns of lawmaking that arise under different legal, social and economic conditions. According to the analysis developed, legal systems respond to exogenous changes, for example in the level of complexity of the legal and social environment or in the coordination cost of existing legislation. In the presence of different environments, lawmakers adopt varying patterns of lawmaking, aiming to maximize the value of a legal intervention. To clarify the importance of exogenous parameters for optimal specificity, consider the degree of specialization of the courts. The optimal level of law specificity increases if applied by more specialized courts (i.e. for higher $c$). This is the case in most civil law jurisdictions, that are characterized by specialized sections that are called upon to deal with a given set of legal issues. Conversely, the coordination costs of existing legislation have a negative impact on optimal specificity. The cost of revising legislation in civil law systems is higher than in common law systems, since codification is designed to provide a comprehensive set of rules and principles. In these circumstances, the revision of legislation in civil law countries appears to be more difficult, requiring the work
of committees of experts, thereby inducing a lower optimal level of specificity and a more frequent use of standards.

The model provides the basis for further consideration of likely departures from such optimal lawmaking patterns due to specific public choice failures.

The Obsolescence Problem

Lawmakers promulgate a law characterized by a certain level of specificity that maximizes the net value of legislation, designed in the light of the social, economic and technological characteristics of the environment. However, the optimal level of specificity chosen for legislation is not constant over time, due to changing circumstances that evolve over time and reflect social, economic and technological changes. Lawmakers should face additional regulation costs when revising legislation to realign the law with the evolution of the external environment. For example, the development of air bags and anti-lock brakes on vehicles altered the relative costs of accident avoidance. Such changes and advances can even render rules obsolete. Posner and Ehrlich (1973) suggest that more detailed rules require more frequent and more costly changes. In the analytical framework developed by Fon and Parisi (2007), obsolescence is modeled as an exogenous parameter, \( o \), that measures environmental volatility, i.e. the rate at which the environment changes. According to the economic analysis, the optimal specificity level decreases, the more volatile the environment.

Standards, however, are less affected by changing circumstances. Since they indicate only the types of circumstances that are relevant and not particular, specific circumstances, their flexibility allows an adjudicating official to consider innovations in technology and changing economic and social circumstances. The reasonableness standard directs the decision maker to determine \( \text{ex post} \) what behavior by the parties would have minimized the sum of the expected accident costs and the accident avoidance costs. This concept can be followed despite changes in the optimal course of conduct over time. The optimal rule maker, then, would use more specific rules when there is a stable environment, and general standards when there is a high rate of change.

Since detailed rules are more sensitive to changes in the regulated environment, they are more prone to obsolescence. Ehrlich and Posner (1973) note that detailed, judge-made rules of liability, derived from the standards and characteristics of the nineteenth century, have given way to detailed traffic and other safety codes that, through the doctrine of negligence \( \text{per se} \), operate as rules of tort liability as well as standards. The rise in the rate of economic and technological change over time has increased the cost of the judicial process. While the judicial process is not well-suited to the rapid alteration of rules, a general standard can accommodate more change. However, the first adjudication
under a standard constitutes a precedent for future enforcement proceedings and almost transforms the standard into a rule (Kaplow, 1992).

Environmental volatility impacts on the optimal specificity of legislation. At the same time, both environmental volatility and legislation specificity will affect the optimal timing of legal intervention.¹ Lawmakers choose when to intervene and revise legislation and legal rules. Hence, the obsolescence rate, optimal legislation specificity and optimal timing of legal interventions are intertwined. Parisi and Ghei (2005) draw an analogy between the lawmaking process and the production process. In the analysis developed by the authors, lawmakers invest in the fixed production of capital and choose the timing of replacement of obsolete capital. The social planner chooses the degree of specificity and the timing of legal intervention, which are critical control variables, to maximize the net present value of legislation. Parisi and Ghei (2005) characterize the optimal balance of timing and specificity as a function of exogenous parameters, such as the expected frequency of application of the legal rule; the degree of uncertainty in the regulated environment; the extent to which lawmaking costs are irreversible (i.e., sunk); and the time preference rate of the social planner.

Lawmaking under Uncertainty
As pointed out by Parisi, Fon and Ghei (2004), an important dimension of the optimal-specificity problem concerns the conditions of uncertainty that surround the enactment of any law. The fundamental premise of recent law and economics research is that lawmaking can be likened to an investment, where the process of lawmaking imposes a present cost in the expectation of future benefits (Dixit and Pindyck, 1994). The creation of legal rules often imposes initial lawmaking costs that are at least partially sunk. The sunk and irreversible nature of lawmaking costs has important implications for the understanding of optimal lawmaking. Models of optimal lawmaking that ignore the option value of delaying legal intervention will be often be biased towards excessive legal innovation. As in any investment decision, the choice of the timing of the investment is crucial. Lawmakers need to choose the timing of legal intervention. Given uncertainty about future returns, investment can be postponed to acquire more information. The same logic may explain the use of narrowly tailored decisions and dicta, when judicial precedents are issues surrounded by uncertainty. But delays in legal intervention often come at a cost, given the foregone benefits of investment in the immediate future.

As the emerging investment theory literature has amply shown (see e.g. Pindyck, 1991), contrary to what traditional investment theory once suggested,

legal intervention is not necessarily warranted by the fact that intervention can generate a net increase in present value. As option-pricing theory (McDonald and Siegel, 1985; Pindyck, 1991) has revealed, the optimal choice of an investment under uncertainty is not that generated by net present value calculations, but the one that takes into account the full value of the option to invest. As shown by Parisi, Fon and Ghei (2004), in the presence of uncertainty and sunk investment costs, a lawmaker is faced with a wedge between the economies obtainable with the implementation of a specified rule and the value of the option to await legal intervention. The dual optimization problem facing the lawmaker, then, is that of determining the optimal level of specificity and timing of intervention, taking into consideration the above factors.

3. Conclusion: Policy Implications

As discussed above, the use of rules versus standards has broad implications for judicial interpretation and the cost and benefits of lawmaking. As a policy matter, Schäfer (2001) suggests that the use of rules rather than standards has the advantage of reducing corruption, concentrating human capital, and cutting down court delays caused by complex decisions. Schäfer’s conclusions are based primarily on the idea that rule-based systems are preferable in developing countries. Using China as an example, Schäfer declares that efforts there to find the optimal degree of specificity of laws are unsuccessful because the judiciary is composed of largely untrained or unqualified personnel. Adjudicators apply the standards haphazardly and so frequently that no clear signals are sent to the public. Schäfer’s argument depends critically on the tenuous premise that legislatures are inherently less corrupt and better informed than the judiciary (perhaps since the legislature is elected on a regular basis, whereas much of the judiciary is appointed and can enjoy lifetime tenure). Additionally, regulated environments in developing countries may be more volatile than those in industrialized countries. Volatility of the external environment creates an increased opportunity for obsolescence of legal rules. This in turn would render standards preferable to specific rules and prevent the legislature from constantly having to incur the cost of legislative amendment to modify previous legal enactments after each new development in the external environment.

2 Parisi and Ghei (2005) have also tackled the issue of optimal timing of lawmaking using the insights of option pricing theory. Parisi and Ghei observe that the choice of optimal timing in lawmaking should be derived considering the option-like characteristics of lawmaking decisions. The authors show that the net present value methodology is inappropriate for dealing with lawmaking decisions under uncertainty, illustrating the different results obtained taking account of the option value of deferring legal intervention, showing how the resulting lawmaking rules depend on various parameters of the regulated environment.
**References**


