

George Mason University SCHOOL of LAW

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Vincy Fon
Francesco Parisi

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Vincy Fon¹ – Francesco Parisi²

CODIFICATIONS AND THE OPTIMAL SPECIFICITY OF LEGAL RULES

ABSTRACT: European lawmakers are undertaking important steps towards the harmonization, unification, and possible codification of some areas of European private law. In doing so they can choose to craft laws with different levels of detail to guide judges in their decision-making process, incorporating rules or standards into the laws they write. The optimal degree of specificity of legal rules under different environmental conditions and the functionality of these rules or standards are the subject of the present study. First, a basic model of optimal specificity of laws is presented, clarifying the relevance of legal obsolescence and volume of litigation in the optimal choice. We further consider the important influence of codification style, judges' specialization, and complexity of reality on the optimal choice of legislative instrument. The results shed some light on the historical patterns of legislation in various areas of the law, and provide some policy recommendations for the ongoing process of codification in the European context.

Keywords: Rules, Standards, Legislation, Codifications, Optimal Specificity of Laws

JEL Codes: L51, K00, K20, H43

In crafting laws, lawmakers cannot effectively foresee all of the particular circumstances to which their laws could apply. This renders legislation general in nature and incomplete as a matter of practical necessity. In ancient Greece, Aristotle (350 B.C.) realized the unavoidability of incomplete laws. But at times, incompleteness of legal rules is not only a matter of unavoidable necessity. Incomplete legal precepts can be purposefully enacted as a way to optimize the lawmaking and adjudication functions, transferring to the judiciary some of the tasks that would otherwise have to be carried out *ex ante* by the legislature. In this setting, Jeremy Bentham (1776) addressed the question of optimal specificity of laws, providing fertile ground for the modern debate on rules versus standards. Bentham's idea of a two-tiered system, where the public learns of the general standards while the judges implement those standards by creating rules for the individual cases, provides a good example of the possible role of purposeful incompleteness of legal rules.

¹ George Washington University, Department of Economics. E-mail: yfon@gwu.edu. Tel.: (202) 994-7580.

² George Mason University, School of Law and University of Milan, Faculty of Law. E-mail: parisi@gmu.edu. Tel.: (703) 993-8036. We would like to thank Daniel Benoliel and Dan Milkove for their generous help and valuable comments.

Since Bentham, contemporary legal theorists have attempted to formulate principles that should be used to determine the optimal degree of specificity of laws. In considering these criteria, legal and economic scholars have utilized instruments from optimal decision theory, public choice theory, and constitutional political economy. This strand of literature, far from being purely theoretical, is acquiring increasing practical significance in the European context. There, the ongoing process of unification of some areas of European law poses the question of choice among alternative legislative instruments. The preparatory work of new codifications, such as the Draft European Civil Code and the new Israeli Civil Code, poses the important question of how detailed these codes should be.

This paper contributes to this literature in general, and specifically offers guidance on the choice of the optimal degree of specificity of legal rules in various areas of law that are being codified. Section 1 introduces the problem with brief references to the existing literature. Section 2 formulates a model of optimal specificity of laws, studying the impact of legal obsolescence, volume of litigation, legal traditions and codification styles, judges' specialization, and complexity of reality on the choice of optimal legal instruments. Section 3 uses these results to shed some light on the historical trends in legislation of special areas of the law, looking at the varying degree of detail utilized by European codifications in various areas of private law, such as property, contracts and sales, torts, agency, and succession law. Codes taken into consideration include the French Civil Code of 1804, the Italian Civil Code of 1865 and the German Civil Code of 1900. The peculiar structure of these codifications and the great discrepancy in the degree of detail used in codifying different areas of the law is found to be highly consistent with the predictions of the model. These codifications are further compared with the recent draft codifications of Europe and Israel. Changes in codification style are once again consistent with the prediction of the economic model. Section 4 concludes with some considerations for policy analysis and ideas for further extensions.

1. Rules, Standards and the Optimal Degree of Specificity of Laws

In the law and economics literature, much attention has been paid to the difference between “standards” and “rules.” Standards and rules can be visualized as two extremes in a one-dimensional space representing the degree of precision of laws. A standard is the legal or social criterion that adjudicators use to judge actions under particular circumstances. In that sense, standards are circumstantial; they are open-ended, allowing the adjudicator to make a fact-specific determination such as whether a driver used “reasonable care” in given situation. Standards such as reasonableness are largely intuitive, which makes them easy to understand for the general public. A rule, conversely, withdraws from the adjudicator’s consideration the circumstances that would be relevant to decision-making according to a standard. Rules are more specific than standards; they create bright line tests such as whether a driver exceeded the speed limit of 55 miles per hour. Greater specificity decreases the flexibility of a rule. This often results in less than a perfect fit between the specific wording of a rule and the varying fact patterns of the regulated conduct.

When legislators choose between rules and standards, they must consider when, and at what cost, the rules and standards should be applied to specific situations. For instance, rules require advance determination of the law's content because of the high degree of specificity involved in their formulation. Lawmakers must perform research in advance to determine the appropriate rule to create *ex ante*. Therefore, rules are more costly for legislators to promulgate than general standards, which require less specificity. Laws that are not fully specified upfront, however, impose greater implementation and decision-making costs by judicial and administrative bodies. Standards are more costly for legal advisors to predict or adjudicators to apply because they require determinations of the law’s content *ex post*.³ Hence, in the event of a car accident where the driver was traveling more than 55 miles per hour, liability would be automatic under a 55 miles per hour rule. However, under a standard such as “reasonableness,” the judge or jury would have to determine the facts and circumstances at the time of the accident, and decide whether to impose liability. The application of a standard is more fact specific, but naturally less consistent in the long run. Thus, from an *ex ante* perspective, rules provide

³ Ehrlich and Posner (1974) have advanced the notion that total cost should ultimately control a legislature’s determination. Kaplow (1992) further clarifies various issues discussed here.

better guidance to the subjects of the law, and from an *ex post* perspective, standards may better be able to be adapted to the varying circumstances of the case.

Generally, scholars have postulated that laws articulated as “standards” leave a greater margin of discretion to judges and administrative agencies in the implementation of the legal norms. On the other hand, “rules” are laws that are specified upfront with a greater level of detail and thus leave a lesser margin of discretion in the implementation of such norms. The lack of a perfect fit between the *ex ante* legal rule and the circumstances of the case occasions potential social losses. These losses vary according to the relative size of the value of the regulated activity and the gravity of the negative externalities of the activity, absent legal constraints. From an efficiency perspective, standards allow ad hoc custom-tailoring of the law to the circumstances of the case at bar, reducing problems of over-inclusion and under-inclusion. These problems are more serious when there is greater heterogeneity in regulated conduct and a faster rate of change in the regulated environment.⁴

In this paper, we take the value of the law as a function of legal precision. Rules advance certainty, consistency, and predictability to private parties and promote judicial economies by minimizing the need for a detailed consideration of facts and circumstances each time a law is applied (Sullivan, 1992). Individuals and firms often need to obtain professional legal advice to determine whether certain conduct violates the law. Attorneys can more easily provide legal advice when the consequences of an actor’s conduct is clearly specified up-front in detailed rules. Given the greater accessibility of detailed rules, more individuals are likely to become informed in a regime dominated by rules than standards. This represents a value of law’s specificity. Under rules, individuals are more likely to adjust their conduct to the precepts of the law. Under a standard such as reasonableness, what is “reasonable” under the circumstances can vary widely. Applying standards may require some guesswork by less experienced legal actors. As a result, standards tend to be more costly for individuals to interpret when deciding how to act, since standards are given content and substance only after individuals act. The

⁴ In this context, Ehrlich and Posner (1974) predict that rules will be more frequently adopted in areas of the law characterized by homogenous conduct.

forward-looking and deterrent functions of law are thus more effective when laws are formulated as precise rules. This constitutes another benefit of law's specificity.

In the literature it is often pointed out that when the regulated environment is subject to exogenous changes over time, laws may require more frequent revisions (e.g., Ehrlich and Posner, 1974). In other words, changes in the regulated environment lead to legal obsolescence. The fact that more specific rules become obsolete at a faster rate should imply that the optimal level of specificity of legal rules should depend on the expected rate of change of the external environment. The existing models, however, do not explicitly formulate the optimal level of specificity of law as a function of the expected rate of change of the external environment. In the following, we extend the results of the existing literature to consider how obsolescence and frequency interact in choosing the optimal detail of codifications, as well as considering the relevance of other factors in the choice of appropriate legislative instruments.

2. Lawmaking with Obsolescence and Economies in Adjudication

We view the lawmaking process as a production function with both fixed and variable costs. The creation of law can be thought of as investing a fixed cost in the production of legal order. Lawmakers choose the level of specificity of legal rules by allocating fixed capital in the production process. Whenever the legal order is applied, the adjudication cost is considered a variable cost. The more frequent the order is implemented, the higher the total variable cost. A greater level of specificity of the law generally increases the cost of creation of the law, but requires lower implementation costs by courts and administrative agencies. That is, the more specific the law is, the greater the fixed investment and the lower the variable implementation costs will be.

The optimal degree of specificity of legal rules should be chosen to maximize the value of the law net of the fixed cost of lawmaking and the variable cost of adjudication. Other than the costs and benefits discussed in the previous literature, we concentrate on some factors that have not been previously highlighted.

2.1 *The Model*

Our model of optimal specificity of laws includes the frequency of the application of the legal rule, the rate of obsolescence of law, the cost of coordination and harmonization of new rules within existing legal systems, the degree of specialization of courts, and the complexity of the regulated environment. The impact of these variables in the choice of optimal legal instruments will be investigated.

Assume that the average value of a law V depends on the degree of specificity chosen in the formulation of the law (s) and the expected rate of obsolescence (ω). Following the existing literature, we assume that as the legal issue is specified in more details, the value obtained from the legal rule increases. For example, when a legal rule provides greater specification, it provides more informational contents and becomes less costly for parties to interpret, increasing the value of the legal rule at a decreasing rate ($V_s > 0$ and $V_{ss} < 0$).⁵ As the rate of obsolescence increases, the value of the legal rule clearly decreases ($V_\omega < 0$). It is postulated that the marginal value of the level of specificity decreases as the obsolescence rate increases ($V_{s\omega} < 0$). If the frequency of application of the legal rule is N , then the total value of the legal rule becomes $N \cdot V(s, \omega)$.

There are two cost components to lawmaking: a fixed promulgation cost and a variable adjudication cost. The fixed creation and promulgation cost F depends positively on the degree of specificity of the rule: the greater the specification, the higher the fixed cost ($F_s > 0$). Further, the marginal cost of promulgation increases as the level of specificity increases ($F_{ss} > 0$). A second factor that influences the fixed promulgation cost is the need to coordinate the new law with preexisting legislation or to comply with other institutional constraints. We refer to this as coordination cost or degree of difficulty in legislation λ , and assume that $F_\lambda > 0$. In a Civil law system characterized by a comprehensive and coordinated codification, the cost of enacting a law which amends a provision of an existing codification is high, given the need to coordinate the new rule with other rules and principles already contained in the code. The degree of difficulty in

⁵ This is consistent with Ehrlich and Posner (1974).

legislation λ may include the need for bargaining between different political parties to reach consensus, the existence of institutional constraints, or aggravated constitutional procedures to follow for the legal enactment. The increment in promulgation cost due to a higher level of specification becomes larger as legislative coordination difficulties increase ($F_{s\lambda} > 0$). A third determinant of the promulgation costs is the complexity of the regulated environment κ . We assume that the fixed promulgation costs increase with the complexity of the regulated environment ($F_{\kappa} > 0$). When reality becomes more complex, the additional fixed cost of specificity becomes larger due to the obvious difficulty of specifying the contingencies of a complex environment ($F_{s\kappa} > 0$).

The second component of the lawmaking cost is related to the adjudication of the legal rule. If N is the frequency of application of the legal rule, the total adjudication cost is $N \cdot C$, where C is the unit adjudication cost. The adjudication cost C depends on the degree of specificity s , the degree of specialization of the court σ , and the complexity of reality κ . In particular, greater specification implies lower unit adjudication cost ($C_s < 0$). In absolute value, this change in adjudication cost can be thought of as the abatement in adjudication cost induced by a greater specificity of the rule, or more simply as an additional benefit of greater detail in the law.⁶ With higher levels of specificity, the additional benefit of greater specificity $|C_s|$ decreases, implying a higher C_s . Thus, $C_{ss} > 0$ is assumed. Next, we assume that the unit adjudication cost decreases as the courts become more specialized ($C_{\sigma} < 0$). The additional benefit of greater specificity in legal rules is greater when those legal rules are interpreted and applied by a specialized court. In other words, as σ increases, $|C_s|$ increases, resulting in $C_{s\sigma} < 0$. Lastly, when reality becomes more complex, the unit adjudication cost increases ($C_{\kappa} > 0$). The additional benefit of greater specificity is higher when reality is more complex. That is, as κ increases, $|C_s|$ increases, resulting in $C_{s\kappa} < 0$.

The level of specificity is chosen to maximize the net total value:

$$\max_s N \cdot V(s, \omega) - F(s, \lambda, \kappa) - N \cdot C(s, \sigma, \kappa).$$

⁶ Here we set aside the other component of the marginal benefit of greater specificity, V_s .

obsolescence ($d\omega = 0$), then the optimal change in specificity must go in the same direction as the change in frequency of application of the legal rule ($ds^*/dN > 0$).

For legal issues that arise frequently in settings with common characteristics, a rule with a higher degree of specificity is desirable. If a law is frequently applied, variable adjudication costs will tend to be higher than promulgation costs. Because learning about a rule is cheaper, individuals may spend less in learning about the law and be better guided by a rule since the law's content can be readily ascertained. This necessarily means that rules will be more efficient than standards when the law is frequently applied.

Conversely, where legal issues rarely arise and the circumstances are varied, designing a rule that accounts for every relevant contingency would require a high fixed cost and would be wasteful, as most of such hypothetical circumstances would never arise in actual cases. Thus, when frequency is low, a general standard is preferable.

2.3 *The Obsolescence Problem*

Circumstances change over time. An important cost of legal regulation by means of rules is the cost of altering rules to keep pace with social, economic or technological change. Obsolescence is not as serious a problem with governance by standards as it is with rules. Standards are relatively unaffected by changes over time since a standard indicates only the types of circumstances that are relevant, and not particular, specific circumstances. The reasonableness concept can be followed despite immense changes of the optimal course of conduct over time. Thus, we expect more specific rules when there is a stable environment and general standards when there is a fast rate of change.

The existing literature points out that detailed rules are more sensitive to exogenous, unforeseen changes in the regulated environment and thus are more prone to obsolescence (Ehrlich and Posner, 1974). Our model shows that if we expect volatility in the environment and consequent obsolescence in the legal order, lower levels of specificity should be chosen. It further clarifies that if there is no change in the frequency of application of the legal rule ($dN = 0$), the optimal change in specificity must go in opposite direction as the change in the rate of obsolescence ($ds^*/d\omega < 0$).

2.4 *Economies of Scale in Adjudication and Obsolescence*

Next, consider the cases in which there are changes in both the rate of obsolescence and the frequency of application of the legal issue. In these cases, the total impacts on changes in the optimal specificity are generally unknown. Various possibilities are conceivable. In the case where there is an increase in the frequency of application of the legal rule and a decrease in the rate of obsolescence, the two positive impacts induced by these exogenous changes reinforce each other to create a positive change, thus increasing the optimal level of specificity. This may be the case when certain new areas of the law become more established, with an increase in both the frequency of application of the rule and the stability of the regulated environment. As a new area of the law consolidates and grows in relevance, greater detail in the formulation of rules becomes desirable. Likewise, when there is a decrease in the frequency of application of the legal rule and an increase in the rate of obsolescence, the two impacts reinforce each other and lead to a reduction in the optimal level of specificity.

In cases in which changes in the rate of obsolescence and the frequency of application of the legal issue are in the same direction, the impacts induced counter-balance each other. Depending on the relative magnitudes and the scaling effects of these changes, optimal level of specificity may increase or decrease. For example, consider the case in which both the frequency in the application of a law and the rate of obsolescence increase. This may be the case of a booming area of the law where the increase in frequency of any legal issue is also accompanied by instability and change of the regulated environment. The impact of these factors goes in different direction. When the positive impact induced from the increase in the frequency of application of the law outweighs the negative impact induced from the increase in the rate of obsolescence, abbreviated here by $N \uparrow$ and $\omega \uparrow$, the optimal level of specificity increases ($s^* \uparrow$). The relatively large and positive impact induced from changes in N may be due either to the large increase in magnitude dN , or to the large positive scaling factor of marginal net value of adjudication $V_s - C_s$, or to both. The relatively weak and negative impact induced from changes in the obsolescence rate may be due either to the small increase in

the rate of obsolescence $d\omega$, or to the small decrease in marginal value due to obsolescence $N \cdot V_{s\omega}$, or to both.

	$N \uparrow$	$N \downarrow$
$\omega \uparrow$	$\omega \uparrow, N \uparrow$ $s^* \downarrow$	$s^* \downarrow$
$\omega \downarrow$	$s^* \uparrow$	$\omega \downarrow, N \downarrow$ $s^* \downarrow$ $s^* \uparrow$

Table 1: Changes in the Optimal Specificity of Legal Rules

It is straightforward to consider the total impact on the optimal level of specificity s^* for the other cases in which both frequency of application and the rate of obsolescence change in the same direction. In Table 1, we summarize the resulting changes in the optimal specificity under different scenarios when there are simultaneous changes in ω and in N .

2.5 *Optimal Detail of Legal Rules in Civil Law Systems with Specialized Courts and Complex Regulated Environments*

After concentrating on the effects induced by changes in frequency of application and rate of obsolescence on the optimal specificity of legal rules, attention is now shifted to the impact caused by other exogenous variables. We consider how the methodological approach used by legal systems, the existence of specialized courts, and the complexity of the regulated environment affect the optimal level of detail in the formulation of law.

With respect to the impact of the methodological approach, it is important to consider the peculiar conception of “codification” in Civil law systems. In a Civil law system, codifications are aimed at providing a comprehensive and coherent set of principles and rules, capable of application through deductive techniques of interpretation (Merryman, 1969). Like a set of mathematical theorems and corollaries, law is organized in a rigorous scheme of principles and rules, arranged in a pyramid-like fashion, from broad to specific, from general rules to particular exception. This conception of Civil law codification results from efforts of the 17th and 18th century French scholars and the later rational jurisprudence that inspired modern European codifications. The change of any specific provision in a Civil law codification is fairly problematic. The amendment of a provision often requires coordination and harmonization with other rules and principles of the code, with complex chain effects on yet other code provisions. This is clearly revealed by the relative infrequency with which Codes are revised in Civil law systems (compared to other pieces of ordinary legislation within the same Civil law system) and by the fact that when revisions occur, they are carried out by committees of experts that attempt to revise entire sections of a code in a systematic fashion, avoiding piecemeal intervention.

Given these system-specific methodological constraints, the cost of legislative revisions is higher for Civil law codifications than for other forms of legislation or codification. Using our first order condition for the net value optimization problem, equation (1), we can study how the codification method influences the optimal level of

specificity. The relevant comparative static results can be obtained directly: $ds^*/d\lambda < 0$.⁷ This reveals that when it is more difficult to codify and amend a legal rule (λ increases), a lower level of specificity is desirable. *Ceteris paribus*, we should thus observe less detail and greater use of standards.

A second component that affects the optimal level of detail of legal rules is the degree of specialization of legal rules. Most Civil law jurisdictions have specialized sections of the bench to deal with given set of issues of the law. For example, in ordinary Civil law courts (Tribunals, Courts of Appeal, and Supreme Courts), specialized panels (generally referred to as “Sections” or “Divisions” of the Court) are formed to deal with particular recurring legal issues. Thus, most Courts will have a division specializing in labor disputes, a division specializing in bankruptcy proceedings, another with contract disputes, another with succession disputes, and so on. In yet other cases, specialized jurisdictions, for example tax courts, are created to deal with particular competencies.

Furthermore, some legal rules affect only specific areas of the law that fall under the jurisdiction of a specialized panel of judges. A tax rule will most frequently be applied by a tax judge and will have only limited occasion to become relevant in a dispute pending before a different court. The optimal level of specificity of these rules of narrow application can thus be evaluated with respect to the specialized court. On the other hand, other legal rules affect matters that can fall under the jurisdiction of a large number of different courts instead. For example, laws concerning legal capacity or duress are potentially relevant in each and all fields of the law. The optimal level of specificity of these rules of widespread application would have to be considered with respect to the entire judicial system.

We thus want to see how the existence of specialized courts affects the optimal level of specificity of law. For the interpretation of this result, we refer to the specificity of laws that primarily fall under the jurisdiction of the specialized court. The relevant comparative static results can be obtained directly: $ds^*/d\sigma > 0$.⁸ The optimal level of specificity increases for laws that are applied and interpreted by more specialized courts

⁷ $ds^*/d\lambda = F_{s\lambda}/(NV_{SS} - F_{SS} - NC_{SS}) < 0$.

⁸ $ds^*/d\sigma = NC_{S\sigma}/(NV_{SS} - F_{SS} - NC_{SS}) > 0$.

(σ increases). In these cases we should expect to see greater use of detailed legal provisions and observe more rules.

Lastly, we comment on the effect of the complexity of the regulated environment on the choice of optimal specificity. Recall that a more complex reality raises the legislative fixed cost and also increases the adjudication cost. An increase in the legislative fixed cost favors a lower degree of specificity (laws should be formulated more like a standard) while an increase in the adjudication cost favors a higher degree of specificity (laws should be formulated more like a rule).

The relevant comparative static result shows that the sign of $ds^*/d\kappa$ is indeterminate.⁹ In spite of the indeterminacy of the overall sign due to the two effects, if the force induced by an increase in legislative fixed cost of specificity dominates the force induced by an increase in adjudication cost, the optimal degree of specificity is lowered when reality becomes more complex.¹⁰ Intuitively, with an increase in the complexity of the regulated environment, greater use of rules will be warranted when legislative costs are lower relative to judicial costs. An increase in judicial human capital, on the other hand, would lower judicial costs and thus justify the use of less specific laws in response to an increase in complexity of the regulated environment.

3. Codifications and Evolving Structure of European Civil Codes

European national codes have been fairly resilient in the course of the centuries. The French *Code Civil* enacted in 1804 by emperor Napoleon Bonaparte still stands as the central body of private law in France. The same is true for many other national codifications of the nineteenth and early-twentieth century, such as the Italian *Codice Civile* and the German *Bürgerliches Gesetzbuch*. The Italian *Codice Civile* came into force in 1865 and remained in force until 1942. The German *Bürgerliches Gesetzbuch* that came into force in the year 1900 has maintained much of its structure and content to the present time.

⁹ $ds^*/d\kappa = (F_{S\kappa} + NC_{S\kappa}) / (NV_{SS} - F_{SS} - NC_{SS})$.

¹⁰ Note that $ds^*/d\kappa < 0$ if $F_{S\kappa} > -NC_{S\kappa}$, and $ds^*/d\kappa > 0$ if $F_{S\kappa} < -NC_{S\kappa}$.

The model of optimal level of specificity of legal rules sheds some light on the structures of these codifications and the different levels of detail used in regulating different areas of law. Table 2 illustrates the point with reference to three representative codifications of modern Europe, each of which played an important role in influencing subsequent codifications throughout the world, and two Draft codifications, the European and Israeli Civil Codes. It lists the number of provisions utilized by different codes to regulate specific areas of law. A larger number of provisions to regulate the same area of the law suggest a greater level of specificity.

	Property	Contracts and Sales	Torts	Agency	Gifts and Successions
French Civil Code of 1804	194 ⁽¹¹⁾	387 ⁽¹²⁾	5 ⁽¹³⁾	26 ⁽¹⁴⁾	389 ⁽¹⁵⁾
Italian Civil Code of 1865	278 ⁽¹⁶⁾	275 ⁽¹⁷⁾	5 ⁽¹⁸⁾	26 ⁽¹⁹⁾	376 ⁽²⁰⁾
German Civil Code of 1900	442 ⁽²¹⁾	273 ⁽²²⁾	30 ⁽²³⁾	17 ⁽²⁴⁾	481 ⁽²⁵⁾
Israeli Civil Code (Draft 2004)	232 ⁽²⁶⁾	385 ⁽²⁷⁾	54 ⁽²⁸⁾	14 ⁽²⁹⁾	N.A. ⁽³⁰⁾
European Civil Code (Draft 2004)	N.A. ⁽³¹⁾	267 ⁽³²⁾	62 ⁽³³⁾	48 ⁽³⁴⁾	N.A. ⁽³⁵⁾

Table 2: Number of Provisions in Civil Codes

¹¹ Articles 516 through 710 of the French *Code Civil* of 1804.

¹² Articles 1101-1369 and 1582-1701 of the French *Code Civil* of 1804.

¹³ Articles 1382-1386 of the French *Code Civil* of 1804.

¹⁴ Articles 1984 to 2010 of the French *Code Civil* of 1804.

¹⁵ Articles 711-1100 of the French *Code Civil* of 1804.

¹⁶ Articles 406-684 of the Italian *Codice Civile* of 1865.

¹⁷ Articles 1097-1139, 1157-1377 and 1447-1548 of the Italian *Codice Civile* of 1865.

¹⁸ Articles 1151-1156 of the Italian *Codice Civile* of 1865.

¹⁹ Articles 1737-1763 of the Italian *Codice Civile* of 1865.

²⁰ Articles 720-1096 of the Italian *Codice Civile* of 1865.

²¹ Sections 854-1296 of the German Civil Code (*Bürgerliches Gesetzbuch*) of 1900.

²² Sections 241-514 of the German Civil Code (*Bürgerliches Gesetzbuch*) of 1900.

²³ Sections 823-853 of the German Civil Code (*Bürgerliches Gesetzbuch*) of 1900.

²⁴ Sections 164-181 of the German Civil Code (*Bürgerliches Gesetzbuch*) of 1900.

²⁵ Sections 516-534 and 1922-2385 of the German Civil Code (*Bürgerliches Gesetzbuch*) of 1900.

²⁶ Articles 576-806 and 840-841 of the Draft Civil Code of Israel of 2004.

²⁷ Articles 114-228, 241-435, 498-520 and 520-575 of the Draft Civil Code of Israel of 2004.

²⁸ Articles 4, 436-486 and 843 of the Draft Civil Code of Israel of 2004.

²⁹ Articles 99-113 of the Draft Civil Code of Israel of 2004.

³⁰ Eleven provisions (Articles 229-240) of the Draft Civil Code of Israel of 2004 concern gifts. The Draft Civil Code of Israel does not cover matters related to succession law, because of the difficulty of finding a politically acceptable solution due to the conflicting religious traditions and rules on the matter. The point was explicitly stated by Israeli Chief Justice Barak, who served as Chair of the Codex Committee. See the Proceedings of the Conference for the 200th Anniversary of the Code Napoleon, University of Haifa (Israel), May 30-June 1, 2004 (M. Rabello, ed.).

³¹ The Draft European Civil Code does not cover matters related to property law, the regulation of which remains governed by the national law of the member states.

³² This count was computed from the June 2004 Draft of the European Civil Code, available at <http://www.sgecc.net> (last visited 6/20/04). These articles are placed in Book II, Chapters 2-8; Book III, Chapters 1-2 and 4-7; and Book IV, Chapters 1-2 of the European Draft Code. An additional 46 provisions under consideration by the Commission are not included in the numbering of the Draft Code as of June 2004.

³³ These articles are placed in Book V, Chapters 1-7 of the European Draft Code.

³⁴ These articles are placed in Book III, Chapter 3; and Book IV.C, Chapters 1-2 of the European Draft Code.

³⁵ The Draft European Civil Code does not cover matters related to wills and estates, the regulation of which remains governed by the national law of the member states.

For example, the French codification was enacted after the fall of the feudal era. The fall of feudalism brought about a substantial change in the structure of property, with a resulting need for innovation in the law of property. This is a period of reaction to the fragmentation of property rights that was characteristic of the feudal era (with the problems of infeudation and subinfeudation) and proclamation of absolute conceptions of property. Fundamental principles of property law are under reconsideration and property law is in a flux. Given the rapid economic and institutional changes brought about by the end of the feudal era, detailed property rules risked becoming obsolete. This explains the relative simplicity of French property law compared to prior (and subsequent) regimes. Property law gradually settled and was regulated in greater detail in the subsequent Italian and German codes. This is illustrated by the fact that the number of provisions dealing with the law of property increases substantially from the 1804 French code to the 1865 Italian code and more than doubles by the time of the German code of 1900. The same probably holds for the regulation of property by the Israeli Civil Code, given the developing principles of property law and the unsettled resolution of historic claims.

An opposite trend is observed in contract and sales law. French and Israeli codes have a substantially higher number of provisions, compared to their Italian, German and European counterparts. This is explainable considering that in France and Israel at the time of their respective codifications there was already a unitary and established commercial tradition. On the other hand, nineteenth-century Germany and Italy, and twenty-first-century Europe utilize codifications as an instrument to achieve unification of otherwise diverse regimes. In the European context, reduced specificity is further due to the increase in the linguistic and legal diversity and the need to simplify rules in contracts and sales law.

An interesting discrepancy is observed in Table 2 between the level of specificity in the law of contracts and torts. In the French code, there are 77 times as many contract law provisions than in tort law. The entire area of tort law is governed by five simple principles with very little degree of specificity. By the time of the German code the number of tort provision increases but the discrepancy with the number of contract law provisions remains nevertheless noticeable. The extreme minimalism used in the drafting

of tort rules is even more striking when compared to the much greater detail used in older systems to regulate tort liability (e.g., Emperor Justinian's *Corpus Juris Civilis* enacted in the year 533 C.E.), where specific causes of actions were created to remedy specific tort situations, with a large number of detailed provisions regulating liability in each particular situation. This peculiar feature of nineteenth and early-twentieth century codifications can be explained by the fact that the shock brought about by the industrial revolution rendered older fact-specific tort rules obsolete. Reference to specific fact patterns in the description of a tort action would have given opportunity for iterated obsolescence in such dynamic economic reality. Although in the present reality some volatility continues to characterize the world of accidents, the rate of change in the accident environment (and the resulting rate of obsolescence of tort law) is probably lower than it was during the industrial revolution. This explains why the Drafts Codes of European law and Israeli law show greater levels of detail used in the area of tort law.

The same holds for the law of agency. In the early-twentieth century, in a world of rapid changing from local rural economies to more complex industrial relations, agency law became at the same time highly relevant and in a state of rapid flux. Any detailed form of regulation of this dynamic reality would have risked rapid obsolescence. This explains the parsimony used by nineteenth and early-twentieth century lawmakers in regulating this area of the law. As this reality approached stability in more recent times, rules gradually increased in number and became more detailed in their formulation.

These findings suggest that lawmakers appear to realize that the increased opportunity for obsolescence of legal rules would render standards preferable to specific rules, preventing the legislature from incurring the cost of legislative amendment to adapt existing rules to new development in the external environment. European codes are thus characterized by different levels of specificity in different areas of the law, with greater specificity in areas characterized by stability and lesser specificity in areas that were undergoing rapid change.

The data in Table 2 further supports the conclusion that specificity of laws is also affected by the number of cases that are likely to be adjudicated in each area of the law. More frequent usage of rules justifies greater fixed expenditures in rule drafting, inasmuch as these expenditures help reduce average adjudication costs. In the historical

context of nineteenth-century codifications, this can be seen by the fact that greater specificity was given to laws of successions, in spite the fairly narrow scope of this area of the law. The law of successions was in fact given a disparately greater prominence in the codes than other areas of the law, such as the laws on quasi-contracts or privacy.

4. Conclusions

The solution to this lawmaking problem generates several implications concerning the patterns of lawmaking under different legal, social and economic conditions. These implications are relevant for both positive and normative analyses.

From a positive standpoint, these results can be used for formulating a positive and testable hypothesis according to which legal systems respond to exogenous changes in the external environment by adopting varying patterns of lawmaking, thus maximizing the value of legal intervention. The anecdotal historical evidence discussed in this paper is consistent with this hypothesis. Modern codifications are a good piece of evidence to consider, since they were written and enacted in a unitary fashion.

Unlike ordinary legislative enactments, European national codes have been surprisingly durable and stable overtime. The 1804 (Napoleonic) *Code Civil* still stands as the central body of private law in France. In celebrating the bicentennial of its *Code Civil*, French jurists did not envision much need for modification of this important legal document.³⁶ The same holds for many other national codifications of the nineteenth and twentieth century. The German Civil Code that came into force in the year 1900 has maintained much of its structure and content throughout the years.

European national lawmakers probably realized that volatility of the external environment creates an increased opportunity for obsolescence of legal rules. This in turn led them to prefer standards over specific rules, in order to avoid the need for costly legislative amendments when new development in the external environment caused obsolescence in previously enacted rules. European codes have adopted different levels of specificity in different areas of the law, choosing greater specificity in areas

³⁶ See the Proceedings of the Conference for the 200th Anniversary of the Code Napoleon, University of Haifa (Israel), May 30-June 1, 2004 (M. Rabello, ed.).

characterized by stability (e.g., contract and property law during the nineteenth century) and lesser specificity in areas that were undergoing rapid change (e.g., tort law after the industrial revolution). Specificity of law also appears to be affected by the number of cases that were likely to be adjudicated in each area of the law. In the historical context of nineteenth-century codifications, greater specificity was thus warranted for the laws of successions than, for example, for laws governing unjust enrichment or quasi-contracts. Finally, the existence of specialized jurisdictions influenced the level of specificity of rules. Bankruptcy and tax codes as well as labor laws were amended with greater level of detail when specialized courts were instituted for their interpretation and application.

These results, while valuable in explaining historical patterns of codification, should be used with caution in a normative context. Optimal patterns of codification should be determined in light of the current circumstances in order to offer valuable guidance to the contemporary European lawmakers. Things have changed since the time of the nineteenth-century European codes. The reality of accident law, for example, is now much more stable than it was at the outset of the industrial revolution. The law of contracts, on the other hand, is in a moment of rapid flux due to the advent of electronic commerce. Likewise, new technologies and means of transmission of information have given much greater relevance to the law of privacy. The approach to codification in these areas of the law should not be determined by the drafting styles that have characterized the traditional national codifications of Europe. European lawmakers should instead be very attentive to the effect that these environmental changes are likely to have had on the optimal choice of legal instrument.

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