Incomplete Law - A Conceptual and Analytical Framework\(^1\)

- And its Application to the Evolution of Financial Market Regulation -

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Abstract
This paper develops a theory of the incompleteness of law. It argues that law is inherently incomplete and that the incompleteness of law has important implications for the design of lawmaking and law enforcement institutions. When law is incomplete, residual lawmaking rights must be allocated. In addition, agents have to be vested with law enforcement rights. We analyze the optimal allocation of lawmaking and law enforcement rights under incomplete law, focusing on the legislature, regulators and courts as possible holders of residual lawmaking rights, and courts as well as regulators as possible law enforcers. Each of these three agents has different properties. Legislatures and regulators are ex ante lawmakers, courts are ex post lawmakers. Courts are reactive law enforcers, regulators are proactive law enforcers. We show that the optimal allocation of residual lawmaking and law enforcement rights to these agents is determined by the degree and nature of incompleteness of law and the magnitude of expected externalities of harmful actions. In the second part of the paper we apply this analytical framework to the development of financial market regulation in England, with some comparative references to developments in the United States and Germany. The empirical evidence demonstrates that financial market regulators with both residual lawmaking and proactive law enforcement rights emerged in response to under-enforcement problems, which resulted from the incompleteness of law.

JLE Classification: G3, K2, K4, N2

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I. Introduction

This paper develops a theory of the incompleteness of law and explains the implications of incomplete law for the allocation of lawmaking and law enforcement rights. It starts with the simple observation that in today’s complex legal systems a number of different agents exercise lawmaking and law enforcement rights. Frequently, one and the same agent exercises lawmaking and law enforcement rights, the commitment to the division of powers among legislature, executive, and judiciary notwithstanding. As we will show below, the theory of the incompleteness of law helps explain why lawmaking and law enforcement has proliferated beyond legislatures and courts, and in particular, why regulators play such an important role as lawmakers and law enforcers in most economies today. At the same time the theory also explains why in certain areas regulators are absent. In short, we develop a positive theory of the optimal allocation of lawmaking and law enforcement rights given that law is inherently incomplete.

The incompleteness of law theory is inspired by the incompleteness of contract theory, which was spearheaded by Oliver Hart and others in the economics literature. A reception of this theory into legal analysis is only beginning, but as suggested by others, bears a lot of promise. The starting point of our theory is that not only contracts, but that law is inherently incomplete – indeed that the incompleteness problem is more profound for law and implicates strategies for dealing with the problem of incomplete contracts. We regard a law as complete, if all potential harmful actions can be unambiguously specified in the law. Otherwise, a law is incomplete – either because of gaps (the law fails to address certain actions) in the law or because of the open-
ended nature of legal provisions (the boundaries of law are not clearly circumscribed). Some areas of the law may be more incomplete than others. Areas that are affected by the pace of socioeconomic and/or technological change tend to be more incomplete. The reason is that change constantly challenges legal solutions designed to solve “old” problems.

Lawmakers may also decide to design laws to be more or less incomplete and will often do so in view of existing law enforcement institutions and their effectiveness. In a world unconstrained by the rule of law, lawmakers could combine highly incomplete laws with extensive discretionary law enforcement rights vested with the executive. To the extent political systems have committed themselves to the rule of law, however, the choices are more limited. Law by design has to be general; everyone is equal before the law; there are limits on retroactive lawmaking and rule by analogy at least in the area of criminal law, to name just a few implications of the rule of law constraint.

The relative level of incompleteness of law will also depend on the properties of institutions that are available in a given legal system to enforce the law. Jurisdictions with strong independent courts may rely heavily on courts not only for law enforcement, but also for lawmaking. Statutory law can therefore afford to be drafted in more general – or less complete – terms. Jurisdictions with a tradition of dependent courts, by contrast, may prefer to write more complete law to limit courts’ lawmaking rights.

When law is incomplete there is a need to clarify the meaning of the law – to interpret and adapt it – when applying it to specific cases. We call the right to interpret existing law, to adapt it to changing circumstances and extend its application to new cases ‘residual law making rights’. Residual lawmaking rights may be reserved by the legislature. They may also be vested with courts, or with regulators. The paper explores the conditions under which the allocating residual lawmaking rights to legislatures, courts, or regulators will be optimal.

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4 As we will further discuss in Section 3 below, these terms are borrowed from the incompleteness of contracts literature, which has inspired our theory of the incompleteness of law.
Allocating lawmaking rights alone is, however, not sufficient. In addition, law enforcement rights need to be allocated. Even the best-designed law is useless unless it is complied with either voluntarily, or coercively. A substantial literature has developed that explores the conditions for effective law enforcement. At the core of this literature is the deterrence function of punishment as stipulated by Becker\textsuperscript{5} and further developed by Stigler.\textsuperscript{6} A recent survey of this literature is given by Polinsky and Shavell.\textsuperscript{7} The implicit assumption of this literature is that law is complete. The key question then becomes how to design punishment in order to achieve optimal law enforcement. Consistent with this assumption, enforcement by courts is at the center of the analysis.

If, however, law is incomplete as we argue in this paper, it is evident that the challenge for law enforcement is more complex than the design of optimal punishment. It requires the design of appropriate institutional mechanisms to address the problem of ineffective enforcement under incomplete law. Under some further conditions (such as expected substantial negative externalities), courts alone may not be sufficient to ensure optimal law enforcement. The reason lies in the nature of law enforcement by courts. We will argue that in countries with a commitment to the rule of law, courts are designed to be neutral arbiters. As such they are confined to reactive enforcement. In other words, courts become active only, once another party has initiated legal proceedings. They do not initiate proceedings themselves, as this would violate their impartiality and transform them into a party to the proceedings. By contrast, regulators enforce law proactively. They monitor behavior, launch investigations, and enjoin or sanction actions on their own initiative. We suggest that proactive law enforcement by regulators has emerged largely in response to the problem of incompleteness of the law in areas, where substantial negative externalities rendered reactive law enforcement ineffective.

\textsuperscript{6} George J. Stigler, \textit{The Optimal Enforcement of Laws}, 78 \textit{J. Pol. Econ.}, 56 (1970)
For the purpose of this paper we assume that legislatures, courts, and regulators all seek to optimize social welfare. We ignore incentive problems, problems of regulatory capture, or corruption, which may affect these three agents of lawmaking and law enforcement in different ways. We recognize that these issues are of great importance, but suggest that they are of secondary importance to the problem of incompleteness of the law. Solving the problem of regulatory capture by, for example, abolishing regulators will not address the problem of under-enforcement of the law that gave rise to the establishment of regulators in the first place. Conversely, arguing that regulators can be more effective law enforcers than courts when law enforcement requires costly efforts in collecting evidence,\(^8\) does not explain why we do not see regulators in all areas of the law where the collection of information is costly.

The paper is organized as follows. In Part II we develop the theory of the incompleteness of Law. Section 1 explains the key ingredients of the theory and discusses the optimal allocation of residual lawmaking rights. Section 2 analyzes law enforcement under incomplete law and explains the notion of regulators as proactive law enforcers as opposed to courts as reactive law enforcers. Section 3 asks how lawmaking and law enforcement rights should be combined to achieve optimal law enforcement within a set of constraints (rule of law, cost). Section 4 places our theory within existing literatures in law and economics, including the literature on the indeterminacy of law, the incompleteness of contracts literature and the literature on regulation. It also summarizes the analysis of leading contemporaries on the reasons for the emergence of regulators. Part III applies this theoretical framework to the development of financial market regulation in England since the mid nineteenth century. Part IV places our analysis in comparative context by summarizing major developments in the regulation of financial markets in the U.S. and Germany. Part V draws conclusions from our analysis for the need for and the optimal level of regulation and sketches out areas of future research.

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\(^8\) See Edward Glaeser, Simon Johnson et al., *Coase vs. Coasians*, 116 Quarterly Journal of Economics 853 (2001). While the paper focuses on transition economies, it potentially has much wider applicability.
Part II: Incompleteness of Law

1. Incompleteness of Law and the Allocation of Residual Lawmaking Rights

We regard a law as complete, if all relevant applications of the law are unambiguously stipulated in the law and the law can be enforced literally provided that evidence is established. This requires that the law is self-explanatory, i.e. that every addressee agrees to the meaning of the law, and by implication, that there is no need for interpreting the law. Otherwise, a law is incomplete, that is, some of the relevant issues are not stipulated in the law or they remain ambiguous. An incomplete law cannot be enforced literally even when evidence is established.

Our basic premise is that law is intrinsically incomplete in a simple extrapolation from the insight that contracts are inherently incomplete. In fact, law is bound to be more incomplete than contracts, because laws serve a much larger number of addressees, are designed to cover a much greater variance of cases, and typically have much longer duration. This at least follows from core elements of the rule of law, in particular the generality of law. Generality of law means that law is designed to stay, to apply to large numbers of addressees and for longer periods of time. Given these constraints, it is impossible to design complete law, which could clearly determine the outcome for the variance of cases that may arise in the future.

Absent such constraints, law could be designed to be more – even though not fully – complete. A law could be designed to apply to a specific case and to last only for a short period of time. Such a law would closely resemble a specific contract between the state and a private party rather than a social contract with multiple addressees. We call this “single-case-law”. Each single-case-law can be more complete for the particular issue it addresses than a general law. Still, this approach has important limitations. Only the parties to the law would benefit. Others
might bargain for similar arrangements, but without certainty as to the outcome of their negotiations. Single-case-laws regulate specific affairs, but do not establish positive externalities in the form of general rules that might help others to structure their relation and serve as guidance for future disputes. In other words, they create private, but not social benefits.\(^\text{10}\) They are also more susceptible to interest group pressure. Finally, because a special law must be passed for each particular case and for every future change, single-case-law suffers from high transaction costs.

Examples for single-case-law include the incorporation of companies in the nineteenth century by special approval (concession) granted by the state bureaucracy, or by special bill passed by parliament. The increasing number of incorporation bills parliaments in the US, for example, had to enact during the period of industrialization, as well as mounting corruption allegations surrounding the adoption of these bills, resulted in the adoption of general incorporation acts in many states since the 1830s, in Delaware in 1883. As the number of party-specific laws did not subside, precisely because they gave companies advantages they could not obtain under the general law, Delaware amended its constitution in 1897 to prohibit incorporation other than under the general law.\(^\text{11}\) Since then, changes in the law affect all companies incorporated in Delaware and it is not in the discretion of the legislature to alter the law only for a specific company.

The generality of law may be disputed with regard to case law. In common law countries where courts have extensive original and residual lawmaking authority, they develop the law on the basis of specific cases brought before them. Only those parts of the decision that are supported by the facts are binding on other courts. Other parts of the decision are considered

\(^9\) For an summary of the incompleteness of contracts theory see below under section 3.  
dictum. Still, the binding parts of the ruling have legal force beyond the case at hand, and until overruled, are binding on all cases that are alike. Thus, case law also exhibits the key features of generality of law and equality before the law.

Each legal system faces the challenge of optimizing the relative completeness of different laws and of allocating residual lawmaking rights. The two major legal systems in the world, the common law and the civil law system, allocate residual lawmaking rights quite differently. In the common law system, judges hold extensive original and residual lawmaking rights. In civil law systems judges are said to interpret, not to make, law. This could be taken to mean that civil law judges do not have residual lawmaking rights. The line between lawmaking and law interpretation is, however, often difficult to draw. Moreover, interpretation even if narrowly construed involves an element of residual lawmaking rights. It implies that the application of a law to a particular set of facts does not follow immediately from the wording of the statute or case law. Nevertheless, it is probably fair to say that in civil law systems judges are more constrained with regards to their residual lawmaking rights.

The allocation of lawmaking rights in civil vs. common law countries may have important implications for the ability of these systems to adapt to socio-economic and technological change. To the extent legislatures hold residual lawmaking rights, future change requires lengthy processes to revise existing codes. Each new revision will be subject to the incompleteness problems: Lawmakers will be unable to foresee all future contingencies and therefore cannot possibly write complete laws. By contrast, courts are able to exercise their residual lawmaking

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13 Scholars of comparative law typically distinguish several subfamilies within the civil law family, namely the French civil law family, the German civil law family, and the Scandinavian one. See Konrad Zweigert & Hein Kötz, *Introduction to Comparative Law*, (1998); Rene David & John E. Brierly, *Major Legal Systems in the Word Today*, (1985); Mary Ann Glendon, Michael W. Gordon et al., *Comparative Legal Traditions: Text, Material and Cases on the Civil and Common Law Traditions, with Special References to French, German, and English*, (1994).
14 Differences in the allocation of lawmaking rights in civil law and common law countries could explain variations in the adaptability of the different legal systems to change. In a detailed study on the evolution of corporate law, for example, Pistor et al find that common law countries were more inventive and adapted
rights after critical information has been revealed in the process of litigation.\textsuperscript{15} While they may have to exercise restraint in ex post lawmaking in areas such as criminal law, in others this gives them substantial flexibility to respond to change.

The crucial role courts play as lawmakers in common law as opposed to civil law countries was the focus of a literature that argued that common law is efficient.\textsuperscript{16} It claimed that the process of litigating and re-litigating cases with unsatisfactory outcomes would eventually lead to the adoption of efficient rules. This claim was later qualified, because it was recognized that the selection of cases for litigation may be biased by factors unrelated to the quality of previous case law or the actual demand for different rules. The current status of this literature is that reliance on litigation does not necessarily produce efficient rules.\textsuperscript{17}

Our argument is different. Under the assumption that law is incomplete, leaving only legislatures to exercise (residual) lawmaking rights implies serious under-enforcement of the law. Legal change is time consuming and costly and each legal change is bound to be incomplete with regards to further developments. Allowing courts to exercise residual lawmaking rights may be superior, but may not be sufficient to ensure effective law enforcement. Thus, a third option, namely vesting regulators with residual lawmaking rights, should be considered.

Law can be incomplete for different reasons. It may be incomplete, because it broadly circumscribes outcomes without identifying particular actions, or enumerating only few actions (Type I incomplete law). Alternatively, law is incomplete, because it specifies the actions that shall be prevented, but fails to capture all relevant actions (Type II incomplete law). In the legal

\textsuperscript{15} On the different types of information that may be revealed through litigation as opposed to general information gathering, see Friedrich A. Hayek, \textit{Law, Legislation and Liberty - Rules and Order}, 1 (1973); more formally Eric Maskin & Jean A.F. Tirole, \textit{Unofreseen Contingencies and Incomplete Contracts}, 66 Review of Economic Studies 83 (1999).

literature, incomplete laws of the first type are often called norms, incomplete laws of the second type “rules”.\(^\text{18}\)

A good example for Type II incomplete law is criminal statutes. They usually contain many provisions all aimed at protecting property rights, each being designed to cover a particular action, such as theft, embezzlement, damage to property, and the like. Closer inspection of these provisions reveals that not all possible actions that could violate property rights have been captured by the law. This suggests that a conscious choice was made to write law that is highly specific, but leave out actions that result in similar harm. We conjecture that this choice is influenced by the commitment to the *nulla poena sine lege* (no punishment without law) principle.

Most legal systems prohibit theft. Theft is usually defined as the appropriation of an asset that is owned by another person by breaching his or her possession.\(^\text{19}\) When electricity was invented and some people simply hooked their households up to the electricity lines instead of connecting officially and paying their bills, the question arose, whether this constituted a theft. For the German Supreme Court (*Reichsgericht*), which had to decide this issue in the late nineteenth century, the key question was whether electricity was an “asset” (*eine Sache*) as defined by law. It acquitted, because it denied the asset quality of electricity and argued that the extension of the existing theft provision would amount to lawmaking by analogy, which would be in violation of the *nulla poena sine lege* principle.\(^\text{20}\) The legislative response was to insert a new provision in the

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\(^{18}\) For an analysis of the tradeoffs of norms and rules, see Louis Kaplow, *Rules versus Standards: An Economic Analysis*, 42 *Duke L.J.* 557 (1992); Louis Kaplow, *General Characteristics of Rules*, http://encyclo.findlaw.com/lit/9000art.html (1997). Building on this literature some authors have proposed to use primarily “bright line rules” when legislating in emerging markets and developing countries. See Jonathan R. Hay, Andrei Shleifer et al., *Toward a Theory of Legal Reform*, 40 *European Economic Review* 559 (1996), arguing that because courts in these countries tend to be weak, there should be fairly little discretion left for law enforcers. The underlying assumption is that the lawmaker has a choice to write more or less complete law. While this is true to some extent, our point is that no law can be written in a way to eliminate discretion completely, because laws are inherently incomplete.

\(^{19}\) Compare Section 242 of the German Criminal Code.

\(^{20}\) See RGStr 29, 111 and RGStr 32, 165.
code that dealt specifically with appropriating energy.\textsuperscript{21} When confronted with similar cases, English and U.S. courts increasingly argued that the key issue was not the asset quality of whatever it is appropriated, but the fact that something can be appropriated. But the matter remained sufficiently incomplete to bring a case to the NY Supreme Court as late as 1978.\textsuperscript{22} More recently, English courts were confronted with the question, whether the case law on abstracting electricity could be extended to convict persons who had fraudulently used telephone lines without paying. This was denied on the grounds that the use of analogy was inappropriate.\textsuperscript{23}

The theft problematic demonstrates that technological change may render previously fairly complete law incomplete. Prior to the invention of electricity or telecommunications the concept of theft had been well defined. But electricity or telephone lines were not assets in the traditional sense, demonstrating the incompleteness of law when confronted with technological change. Lawmakers and law enforcers had to decide whether the unauthorized use of electricity or telephone lines deserved the same level of punishment. The cases reveal that courts exercise only limited residual lawmaking rights in the area of criminal law. The result has frequently been acquittal, even though the identified actions were widely regarded as wrongful, leading to under-enforcement. But this result is the price, legal systems pay for adhering to rule of law principles, which constrain the power of the state to sanction individuals.

An example for Type II incomplete law, is tort law. General tort principles typically stipulate that damages to property, life, and liberty gives rise to liability against the person(s) that caused those damages. Note that no single action is defined, only the broad outcome of damages to property. The scope of liability can be further circumscribed by requiring intent or negligence, but this still leaves open the form actions might take.

\textsuperscript{21} Compare Sec. 248c StGB, which was inserted in April 1900.
\textsuperscript{22} For a summary of U.S. and English case law in this matter, see 402 N.Y.S. 2d 137. In the words of the Supreme Court of Illinois dealing with this matter in 1937, “The true test of what is a proper subject of larceny seems to be not whether the subject is corporeal or incorporeal, but whether it is capable of appropriation by another than the owner”. Cited ibid at p. 140.
Even when courts can exercise extensive lawmaking rights, as in the case of tort law, courts are constrained by the fact that they can make law only on the basis of cases that are brought before them, and for the most part, after harm has been done. That is, they do not have the power to intervene and make new rules that might prevent harm, even when events unfold under their eyes that might make such an intervention desirable. Note that Jeremy Bentham argued already in the nineteenth century there was a need for “devising a course of legislative acts adapted to prevent offenses”. Since the selection of cases for dispute is determined by many other factors, and not necessarily by a demand for better rules, this process of lawmaking will not generate optimal outcome, even though – consistent with our basic assumptions – courts may be fully committed to making social welfare enhancing law.

Alternatively, residual lawmaking rights may be allocated to an agent that has the power to take the initiative to change rules. Regulators are such agents. Within the scope of their residual lawmaking rights, which is typically delegated by the legislature, they can change and amend implementing rules. This capacity is crucial in particular in areas that are prone to substantial socioeconomic and/or technological change. To the extent that regulators are committed to enhance social welfare, we can assume that they will change rules in response to actual demand.

Consider the gradual shift of lawmaking rights from courts to regulators in stock fraud cases. Until the mid 19th century, tort law had been developed for cases of wrongful actions or deeds, including actions against life, property and personal integrity. Existing tort principles required those who had taken actions that resulted in harm to others to compensate them for harm. Courts in England and elsewhere soon had to confront the question, whether the same principles should

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23 R. v. Shrinaeh Kalesusuwar (1993) 14 Cr. App. R. (S. 49). The appellate court held that it was inappropriate to rely on the analogy of cases of fraudulently abstracting electricity in this particular case.
24 Bentham, Theory of Legislation, 2nd edition 1871 at p. 358
25 See the literature on the superiority of the common law discussed above [].
26 Note that civil law countries have not been able to define tort principles more concisely than common law countries. Para 823 of the German Civil Code, for example reads, “Wer vorsätzlich oder fahrlässig das Leben, den Körper, die Gesundheit, die Freiheit, das Eigentum oder ein sonstiges Recht eines anderen widerrechtlich verletzt, ist dem anderen zum Ersatze des daraus entstehenden Schadens verpflichtet”
be applied to misrepresentation of information, the most common means used to cheat investors. They did so in principle, but even when faced with a rising number of cases that revealed careless use of information, were reluctant to lower the threshold for liability from gross negligence to simple negligence. They saw a fundamental difference between actions and words, and hesitated to fundamentally alter the legal principles on which tort law rested. It took an intervention by the legislature to establish that directors could be held liable for (simple) negligent misrepresentation. Still, neither courts nor the legislature were able to keep up with the rapidly evolving financial markets and the ever new opportunities for cheating they brought with them. This affected not only those that had been cheated and who found it difficult to get adequate remedies. A sequence of financial scandals challenged investors’ confidence in the market more broadly. In response, stock exchanges increasingly assumed regulatory functions by establishing disclosure requirements and monitoring companies for compliance. In addition, state regulators were given regulatory powers over financial markets, including the right to amend the rules of the game. The hallmarks of financial markets, the rapid pace of their development and the increasing number of investors that were affected by market scandals gave rise to new forms of lawmaking as well as law enforcement (see further below). Contrast this with cases where damages are much more controlled, i.e. where only few externalities arise. An example is directors’ breaching their fiduciary duty vis-à-vis shareholders. Legislatures have tried to carve out typical problem areas, such as conflict of interests and included provisions in statutory law. By and large, however, they have left it to courts to define the scope of fiduciary duties. Legislatures recognized that they could not possibly capture all relevant situations without excessively constraining business

[Whoever, intentionally or negligently, damages life, body, health, freedom, or property or any other right of a person without justification, must compensate that person for the resulting damage.”]

This was accomplished with the enactment of the Directors’ Liability Act in 1890. On the genesis of this act see below in Part III.

On the peculiar evolution of corporate law in the United States, where statutory law has evolved into an enabling law, but courts have been the guardian of fiduciary duty principles, see John C. Coffee, Jr., The Mandatory/Enabling Balance in Corporate Law: An Essay on the Judicial Role, 89 Colum. L. Rev. 1618 (1989).
activities.\textsuperscript{29} There was also never an attempt to allocate residual lawmaking rights in this area to regulators.

Three factors can help explain this. First, the complexity of managerial activities that may amount to a violation of fiduciary duties defies any attempt of standardization. Second the cost of collecting information on these activities on a continuous basis is likely to be very high. Third, regulation may deter not only harmful, but equally potentially beneficial action.

To summarize, the incompleteness of law gives rise to the need to allocate residual lawmaking rights. Legislatures, courts, and regulators can be vested with these rights. The optimal allocation of residual lawmaking rights is determined by the possible level of standardization of actions that may result in harm, the pace of socioeconomic and technological change, and the cost of regulation. Residual lawmaking rights are best allocated with legislatures when standardization is feasible and ex post rulemaking not desirable, i.e. because this would violate fundamental principles of the legal system. Courts should hold residual lawmaking rights when standardization is not possible, ex post lawmaking is not constrained by rule of law concerns, and socioeconomic change does not constantly outpace the development of case law. Regulators should hold residual lawmaking rights when the pace of change renders legislative lawmaking too costly and ex post lawmaking by courts too late. One may question whether a reallocation of lawmaking rights to regulators alone would justify the expenses of establishing and maintaining a regulator. After all, the legislature could establish a number of committees with the expertise to monitor market development and prepare new implementing regulations. The key for understanding the importance of regulators thus is not so much the regulators’ lawmaking, but their law enforcement function, to which we now turn.

\textsuperscript{29} For a more detailed analysis of the optimal allocation of residual lawmaking rights to address problems of fiduciary duty, see Katharina Pistor & Chenggang Xu, \textit{Fiduciary Duties in (Transitional) Civil Law Jurisdictions - Lessons from the Incompleteness of Law Theory}, (2001).
2. Allocation Law Enforcement Rights under Incomplete Law

The classic law and economics literature on law enforcement conjectures that a strategic actor considers the expected gains, the probability of getting caught, and the expected punishment to determine whether an action is worthwhile undertaking. In order to effectively deter, a law should tailor the sanction to the seriousness of the crime. As Stigler put it, “marginal costs are necessary to marginal deterrence (…): If a thief has his hand cut off for taking five dollars, he had just as well take $5,000.”30 Under incomplete law, however, an actor will also consider, whether his action is even considered a crime or gives rise to civil liability.

The standard law enforcement literature discusses primarily enforcement by courts.31 This is consistent with the underlying assumptions. If law is complete, the level of punishment is determined optimally, and there is a high probability of being caught, law should be largely self-enforcing. The role of courts is primarily to ensure that there is a credible threat of punishment should violations occur nevertheless. However, when law is incomplete, law enforcement by courts alone may be insufficient. The reason is that courts are designed to enforce law reactively. They are passive and do not take action until somebody has brought an action (including an action for a preliminary injunction, which allows enjoining actions before harm has been done).

The limits of reactive law enforcement are best exemplified when we assume that courts have no residual lawmaking rights. Under this condition, courts will have to dismiss a case whenever the law is not unambiguously specified, i.e. for which it does not offer a clear-cut solution. It is

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31 See, however, Steven Shavell, A Model of the Optimal Use of Liability and Safety Regulation, 15 Rand Journal of Economics 271 (1984) and Steven Shavell, Liability for Harm versus Regulation of Safety, 13 J. Legal Stud. 357 (1984). Shavell examines the effect of liability and safety regulation rules on accidents. Liability is invoked after harms has been done. As long as the harm done is less than the total assets of the violator, liability rules enhance the level of care. Regulation determines a certain level of care the regulator finds desirable. Since the regulator can not observe the level of risk, however, this will not be optimal. Using a formal model, Shavell conjectures that a combination of liability rules and regulation may be optimal. In contrast to our approach, he does not discuss residual lawmaking and law enforcement rights by regulators, but treats regulation as legislation, i.e. as ex ante rule making. Consistent with our analysis, this
then up to the lawmaker to correct the situation and enact a new law. This happened in Germany in the case of electricity theft, discussed above. In areas that are highly susceptible to socioeconomic or technological change, purely reactive law enforcement cannot ensure effective deterrence. In a changing environment new opportunities for taking actions and exploiting opportunities evolve constantly. Many of these actions may be productive, some may be harmful. If the law cannot distinguish between them ex ante, substantial harm may have been done by the time the legislature intervenes and amends the law to take account of the changes.

When courts have at least some residual lawmaking rights, they may modify existing law when applying it to new cases. This is exactly what English courts did when they developed the principle of “abstracting electricity” and punished offenders accordingly, or when US courts ruled that the key question for the application of theft provisions is not the asset quality, but the ability to appropriate. There will be fewer acquittals or dismissals with the effect that actors may be more cautious when designing strategies aimed at circumventing the law. Thus, when courts hold residual lawmaking rights, the deterrence effect of the law may be higher than when they don’t. Still, the ex post lawmaking on the basis of new cases cannot undo the harm that has been done.

The constraints of ex post lawmaking and reactive law enforcement may be tolerable when harm is controlled, i.e. when it does not create substantial negative externalities. An example is the violation of obligations that directors owe to shareholders of the firm they manage. In this case, harm is limited to shareholders of that particular company only, and they have a fair chance that some of the damages to them or the corporation will be effectively remedied ex post. In comparison, when actions create substantial externalities, i.e. when a large number of new investors are affected by harmful actions, ex post lawmaking and reactive law enforcement comes too late and is unlikely to remedy the harm that has been done. In this case it will be optimal to

cannot achieve the first best, even though his primary focus is asymmetry of information, to which we add the incompleteness of law.
shift from reactive law enforcement to proactive law enforcement, or to vest regulators rather than courts with law enforcement rights.

We define a regulator as an institution that enforces law proactively, rather than reactively. A regulator frequently is, but need not be, a state agent. A self-regulatory body, such as a stock exchange, can exercise similar functions as a state-regulator. Proactive law enforcement includes various functions, including controlling entry, monitoring activities, initiating investigations, enjoining actions, and administering or initiating the administration of sanctions against violators. None of these functions can be carried out by courts, because courts are designed to be impartial and therefore have to remain passive until actions are brought by others.

A simple example for proactive law enforcers is the police. It monitors behavior and seeks to prevent damages by enjoining actions that are likely to cause harm. The police can stop a car even if it is not speeding or violating other rules, for example, when the manner of driving suggests that there could be something wrong (sometimes exact observance of the rules can raise suspicions). This is a classic example of proactive law enforcement. The police cannot convict the driver. This remains the task of the courts. But it can stop him, administer an alcohol test, prevent him from continuing his way should the test be positive, and even fine him. To do this, the police is explicitly vested with the power to investigate, collect information and enjoin actions.

The advantage regulators have over courts in enforcing the law is that they monitor behavior on a regular basis and adjust rules accordingly. In addition, they can stop actions that do not comply with existing rules. Once harm is done, they can initiate enforcement procedures. In

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32 Self-regulatory bodies typically are more constrained in their jurisdiction than state regulators are. For example, they may punish effectively only members of their organization and cannot reach beyond them. However, to keep matters simple we will treat state and non-state regulators alike for the purpose of this paper. There is a growing literature on the trade-offs between regulation and self-regulation. [ADD]. This literature assumes a need for regulation, which our theory seeks to explain. We intend to address the tradeoff between state regulation and self-regulation under incomplete law in future research.
contrast to courts, regulators do not have to wait for others to take action. They are the ‘initiators’, even when the final legal settlement is left with the courts as the ‘resolvers’.

Regulation does not come without cost. The direct costs of regulation include the size of the budget needed to hire monitors, investigators, file information and launch lawsuits.\(^{33}\) The indirect costs of regulation comprise the costs market participants incur because they have to comply with regulation, and that society incurs when regulatory lawmaking and law enforcement is suboptimal. A regulator can impose costs that outweigh the benefits of proactive law enforcement. Conversely, a regulator may err by under-deterring potentially harmful actions.\(^{34}\) Thus, not every regulation is “good”, but only regulation that optimizes the cost of law enforcement as compared with other enforcement devices.

To summarize, regulators perform a different function than courts in law enforcement. As proactive law enforcers, regulators play a crucial role when law is incomplete. Still, even under this condition we do not observe regulators in all areas of the law, and in fact cannot justify the establishment of regulators in all cases. The costs of proactive law enforcement by regulators can be justified only when harmful actions are likely to create substantial negative externalities, which cannot be fully remedied by reactive law enforcement.

Examples for areas of the law where a regulator can be justified on the above grounds include the production and dissemination of pharmaceuticals, the construction of nuclear power plants, or safety standards for aviation industry. The probability that harm will occur may be low, but if it occurs, the life of many people may be at stake. The actions that may result in the harmful

\(^{33}\) See also Steven Shavell, *Liability for Harm versus Regulation of Safety*, 13 *J. Legal Stud.* 357 (1984) op cit note [] who points out that regulators operate even when there is no harm. The same is true for courts, of course, unless a legal system relies exclusively on ad hoc dispute settlement institutions. However, courts may shift to different cases when there is a drop in litigation, whereas regulators are much more specialized law enforcers.

\(^{34}\) On the tradeoff between monitoring and investigating and the cost implications of these regulatory enforcement mechanisms, compare Dilip Mookerjee & I.P.L. Png, *Monitoring vis-a-vis Investigation in Enforcement of Law*, 82 *Am. Ec. Rev.* 556 (1992). Using a formal model to compare the tradeoffs, they conclude that the use of these alternative enforcement devices should be tailored to the severity of the offense. Smaller offenses should not be investigated, but only monitored. Larger offenses should be investigated in accordance with their severity and fines should be maximized.
outcome are difficult to specify ex ante. With respect to pharmaceuticals, for example, they may include mistakes in basic research that led to the identification of a new substance used in the drug, in the design or assessment of test trials, or in the production of the pharmaceutical. Only an accumulation of indicators may suggest which actions, if left unchecked, will result in substantial harm. These features call for monitoring and investigation.

Financial markets are another area where regulation can be justified. Cheating a couple of shareholders will not undermine the viability of financial markets. Wide-spread stock fraud, however, can seriously undermine investors’ confidence in capital markets and hurt the economy. The history of the law governing financial markets, which we will further address in Part III below, demonstrates the ingenuity of market actors in developing schemes to defraud investors in ways that time and again proved to be beyond the reach of existing law. Attempts to deter such actions by enhancing the completeness of case or statutory law proved to be unsuccessful, because the law constantly lagged behind new market developments, including new methods for cheating investors. The inability of lawmakers to prevent harmful actions in the future simply by writing better laws eventually gave way to the emergence of regulators, first in the form of stock exchanges, later in the form of state regulators.

3. Regime Choice: Regulators vs. Courts

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In section 1 above, we identified three potential holders of residual lawmaking rights: legislatures, courts, and regulators. In section 2, we argued that when law is incomplete, reactive law enforcement by courts may not be sufficient to ensure effective law enforcement, but proactive enforcement is needed. In this section, we discuss how lawmaking and law enforcement functions combine to offer different legal regimes – a classic division of power regime, a pure court regime, or a pure regulatory regime - and identify factors that determine the optimal regime choice.

Recall that incomplete law can occur in two forms, Type I and Type II incomplete law. Type I refers to broadly phrased outcome orientated “norms”, Type II depicts highly specific rules that define actions that constitute violations of the law. Starting from a given Type of incomplete law, the allocation of residual lawmaking and law enforcement rights is determined by the level of expected externalities on the one hand, and the possibility to standardize actions ex ante, continuously, or not at all, on the other.

In case there are no externalities, reactive enforcement by the courts will be sufficient. Law can be made either ex post or ex ante. Rule of law concerns may, however, constrain the scope of ex post lawmaking is feasible.

In case there are externalities, the key issue is whether or not regulation can be designed to be cost effective. This is the case only, if at least some actions can be standardized. This requires some experience that would tell lawmakers which actions typically result in harm. All other unforeseen actions are subject to ex post lawmaking and reactive law enforcement.

The matrix below reflects the major determinants of an optimal regime choice given Type I or Type II incompleteness of law. Obviously, this may not always be a given, but lawmakers may have a choice in designing law to be closer to Type I or II. In fact, this choice may be determined by the availability and effectiveness of alternative law enforcement institutions. However, for ease of presentation we take the type of incompleteness of law as a given.

<table>
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<th>Incompleteness of Law</th>
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<tr>
<td></td>
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</tr>
<tr>
<td>No externalities</td>
<td>Type I Incompleteness</td>
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<tr>
<td>------------------</td>
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</tr>
<tr>
<td>No externality</td>
<td>Ex ante lawmaking</td>
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<tr>
<td>Rule of Law</td>
<td>Reactive law enforcement</td>
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<td>concern</td>
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<td>Externalities</td>
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<td>Standardization</td>
<td>Reactive law enforcement</td>
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<td>possible</td>
<td>[pure regulatory regime]</td>
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<tr>
<td>Externalities</td>
<td>Ex ante OR Ex post lawmaking</td>
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The greatest problem of underenforcement occurs in the case when the expected externalities are substantial, yet standardization ex ante is not feasible, at least not at the time the law is drafted, because sufficient information about the type of actions that typically cause the harm the law seeks to prevent is not available. A possible way out is to give regulators the discretionary power to redefine their agenda and regulate subject areas that at the time that lawmaking rights are delegated to the regulator are yet unknown.

Obviously, this raises concerns about the scope of acceptable discretionary power regulators shall exercise. The combination of lawmaking and law enforcement rights in the hands of the executive branch does already raise some concerns. But they may be mitigated by limiting the scope of lawmaking and law enforcement activities regulators can exercise, judicial review of regulatory decision making, and internal checks and balances. Attempts to overcome the problem of underenforcement by creating super-regulators may create too much unchecked discretionary power in the hands of one agent. From a rule of law perspective it may therefore be preferable to cope with the problem of externalities rather than eliminate constraints on regulators.

4. Incompleteness of Law and Related Theories
In this section we place the theory of the incompleteness of the law into the context of related literatures, including the incompleteness of contracts, the indeterminacy of law, and theories on regulation. We do not attempt a comprehensive survey of these literatures, but seek only to delineate our theory of the incompleteness of law from related theories.

a. Incompleteness of Contracts

The theory of incompleteness of the law is inspired by the incompleteness of contracts theory developed in the economics literature. The notion that contracts are incomplete is now widely recognized.\(^{36}\) The concept was introduced as a critical ingredient to explain property rights and the boundary of the firm.\(^{37}\) According to the incomplete contract literature, a contract is complete if (and only if) all relevant contingencies and corresponding control rights – such as responsibilities of the parties for different aspects of the relation, rewards and punishments for certain actions, etc. – are specified unambiguously. Complete contracts resolve all possible disputes between the contractual parties ex ante. A contract is incomplete, when some relevant contingencies are missing, or some items are specified ambiguously. As a result, the contract is not literally enforceable and on its own cannot resolve disputes. The central issue then becomes who has the right to decide the issues that are not specified in the contract, i.e. who holds the residual rights. The answer to this question is that owners hold residual rights, in fact that holding residual rights of control is the very nature of property rights. The owner of an asset or right holds all rights that are not specified by contract and thus controls future decisions over the asset. The


incompleteness of contracts literature has only begun to be absorbed by legal scholars.\textsuperscript{38} This is true also with regards to theories of the firm, where in the legal literature the agency theory still dominates over the property rights theory.\textsuperscript{39}

The main difference between the theory of the incompleteness of law and the theory of the incompleteness of contracts is the subject of inquiry. The incompleteness of contracts literature is concerned with private contracts among economic agents and seeks to optimize the allocation of residual rights in economic efficiency terms. Our focus of analysis is the legal system, i.e. the social contract that binds lawmakers, law enforcers and all individuals under their jurisdiction for a long (potentially indefinite) period of time.

The different subjects of inquiry imply different objectives. A major concern for the allocation of residual lawmaking and law enforcement rights that we posited at the outset of our analysis is that in a country governed by the rule of law, law must in principle be general and everyone is equal before the law. These principles limit the extent to which law enforcement can be optimized by writing as complete law as might be possible under efficiency considerations only (i.e. by writing multiple single case laws). They also limit the scope for renegotiation, as retroactive lawmaking is limited especially in the area of criminal law. The incompleteness of contracts theory does not face similar constraints but can experiment more freely with the optimal allocation of residual rights of contracts and strategies to enhance the completeness of contracts.


b. Indeterminacy of Law

Lawyers are familiar with the basic notion that neither statutory nor case law can unambiguously predict the outcome of a particular case. They tend to associate this notion with the concept of “legal indeterminacy”. Scholars of legal indeterminacy have long argued that it is a fundamental feature of human predicament that we simply cannot “regulate, unambiguously and in advance, some spheres of conduct by means of general standards to be used without further official direction on particular outcomes”. The reason is that the world is too complex. In the words of H.L.A. Hart, “If the world in which we live were characterized only by a finite number of features, and these together with all the modes in which they could combine were known to us, then provision could be made in advance for every possibility (...)” And he adds, “plainly this world is not our world.”

The theories of incompleteness of contract or incompleteness of law do not have much to add to this description of the state of our world. Still, there are good reasons to keep the concepts of legal indeterminacy and incompleteness of the law apart from each other. Most importantly, they have different agendas and they use different analytical tools.

The indeterminacy debate has a strong normative connotation. It questions the long held assumption that legal rules developed in case law or stipulated in statutory law can unambiguously resolve cases. The idea that judges are subject to the law and nothing but the law is closely associated with this notion, often described as legal formalism. The “discovery” that law is not as firm a guide for resolving cases as legal formalists would have it, has shed doubts on the administration of justice. Radical critiques have used the concept of legal indeterminacy to argue that “Law is politics” and to debunk the concept of the rule of law as a myth. Since law

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comparison of different theories of the firm in a style that is easily accessible to lawyers, see Oliver Hart, *An Economist's Perspective on the Theory of the Firm*, 89 Colum. L. Rev. 1757 (1989).


41 Ibid
does not determine the outcome of a particular dispute, other factors must, including political preferences of judges or the political cloud of the parties to the dispute.

There is a range of more nuanced uses of the concept.\footnote{For an excellent summary of this debate with further references, see Lawrence B. Solum, \textit{Indeterminacy}, \textit{A Companion to Philosophy of Law and Legal Theory} Dennis Patterson ed. 2 488 (1999) at pp. 489.} Many have rejected the radical notion of indeterminacy and distinguish the law’s ability to determine outcome (which it cannot) from the law’s ability to constrain outcomes (which it does). The emerging consensus appears to be that law is neither radically indeterminate, but nor is law radically determinate.

More recently the “indeterminacy” concept has been used to explain the political economy of rule making. It has been suggested, for example, that the legal profession in the state of Delaware has a vested interest in writing highly indeterminate corporate law, because this gives it a comparative advantage over other states. Delaware competes with these states for incorporation of major companies and they could easily copy Delaware law – as some have done – to undermine Delaware’s dominant role. Indeterminate law, however, requires greater involvement of legal professionals. The specialization of the legal profession in corporate law is difficult to emulate by other jurisdictions, but will be valued by shareholders and other ‘consumers’ of the law.\footnote{See Ehud Kamar, \textit{Costs of Departure from Formalism: Shareholder Litigation Under Indeterminate Corporate Law}, 66 \textit{University of Chicago Law Review} 887 (1999).} While this may be a plausible explanation for Delaware’s comparative advantage in corporate law, there is no attempt to develop a theory of the optimal level of indeterminacy of corporate law or of the design of a second best solution once it is acknowledged that law is inherently indeterminate.

Our goal is to develop such a theory. Our approach differs from the indeterminacy debate also in other respects. Most importantly, the incompleteness of law theory is positive, not normative. We seek to investigate the implications of incomplete law for the optimal allocation of lawmaking and law enforcement rights. We even assume away factors such as political interests and incentive structures that might determine differences in actual empirically observable
outcome. These issues will be addressed in future research, but in this paper it is our goal to establish that even absent such considerations law is incomplete and that the incompleteness of law has important implications for allocation of residual lawmaking and law enforcement rights. While we derive some suggestions about the ‘optimal design’ of law enforcement institutions in light of the incompleteness of law, we do not purport to develop a normative theory.

The two theories may lead to similar results. Since law cannot determine outcome, proponents of the indeterminacy theory must also acknowledge that law cannot fully deter behavior. Both concepts recognize that reactive law enforcement contains an element of lawmaking, precisely because law cannot be fully specified ex ante. Both recognize the limitations of purely “ex post facto” law enforcement. H.L.A. Hart expounded some forty years ago that “Sometimes the sphere to be legally controlled is recognized from the start as one in which the features of individual cases will vary so much in socially important but unpredictable respects, that uniform rules to be applied from case to case without further official direction cannot usefully be framed by the legislature in advance. Accordingly, to regulate such a sphere the legislature sets up very general standards and then delegates to an administrative, rule-making body acquainted with the varying types of case, the task of fashioning rules adapted to their special needs.” Our definition of the functions of proactive lawmaking by regulators is very similar to the functions Hart attributes to administrative rule. The difference is that in Hart’s analysis, this insight is only one element in broader theory on the concept of law and the function of courts. By contrast, the design of optimal enforcement mechanisms under incomplete law is the very core of our theory.

There are also notable differences in conclusions both theories draw. We argued above that core features of the rule of law, such as generality of law so that it can be applied to an indefinite number of addressees, and the principle of equality before the law, imply that the law be highly

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44 For the most part, the literature does not explicitly address this problem, presumably because it addresses a function of law that most lawyers would regard to be over-simplistic.
incomplete. This proposition stands in contrast certainly to the radical version of the indeterminacy proposition, which holds that indeterminacy and rule of law are incompatible.\textsuperscript{46} The indeterminacy debate seeks to critique or reconcile – depending on which side of the debate one stands - basic principles of justice and rule of law with the fact that law does not determine outcome, but at bests constrains the choices law enforcers face. By contrast, our argument is closer to Hayek’s proposition that writing highly specific rules is at odds with the basic notion of the rule of law.\textsuperscript{47} But we differ also from him in that we do not take a normative stand on whether incomplete law is good or bad. We simply assert that from our theoretical vantage point, general rules designed to address multiple actors and to remain unchanged for long periods of time are inherently incomplete. Given this starting point, the task for any legal system is to allocate residual lawmaking as well as law enforcement rights in a manner that ensures optimal law enforcement.

c. Theories on Regulation

We are not the first to suggest that enforcement by regulators may, under certain conditions, be an improvement over law enforcement by courts. A recent paper suggests that enforcement by regulators may be more effective than enforcement by courts when enforcement entails the need

\textsuperscript{46} Even Hart \textit{The Concept of Law}, (1961) seems to subscribe to this result, as he does not disqualify it on first principles, but argues that the indeterminacy of law is counteracted by the invention of courts that can make authoritative judgments. “(...) the existence of a court entails the existence of secondary rules conferring jurisdiction on a changing succession of individuals and so making their decision authoritative.” Ibid at p. 136.  
\textsuperscript{47} Hayek has argued that any attempt to write precise law undermines the impartiality of the legislatures and is therefore inconsistent with the rule of law: “If the state is precisely to foresee the incidence of its actions, it means that it can leave those affected no choice. Wherever the state can exactly foresee effects on particular people of alternative courses of action, it is also the state, which chooses between the different ends. If we want to create new opportunities open to all, to offer chances of which people can make what use they like, the precise results cannot be foreseen. General rules, genuine laws as distinguished from specific orders, must therefore be intended to operate in circumstances which cannot be foreseen in detail, and, therefore, their effect on particular ends or particular people cannot be known beforehand. It is in this sense alone that it is at all possible for the legislator to be impartial. To be impartial means to have no answer to a certain questions - the kind of questions, which, if we have to decide them, we decide by
to invest in costly collection of evidence, because it is easier to design incentives for regulators than for courts to optimize their law enforcement activities.\textsuperscript{48} The argument differs from the standard literature on regulation. That literature views regulation primarily as the result of interest group bargains leading to excessive state intervention in the economy.\textsuperscript{49} Regulation itself is defined by this literature as “any form of state intervention”.\textsuperscript{50}

Our theory differs from both approaches. We follow Glaeser et al. in arguing that regulators have a potential role in law enforcement that is different from courts, and that may be more effective than court enforcement. In contrast to Glaeser et al, however, we are less interested in incentive problems. Instead, we rest our argument on the notion of the incompleteness of law. The thrust of our argument is that even if we assume that both courts and regulators can be optimally incentivized, there may be a need for regulators in addition to courts to ensure effective law enforcement.

Our argument also differs from the political economy literature on regulation. We argue that law enforcement by regulators cannot be explained by changes in political bargaining power alone. Instead we suggest that the incompleteness of law is an important rational for the emergence of regulators. This is also evidenced by the fact that regulatory regimes emerged in many countries in response to similar events, namely the growth of stock markets and a serious of market crises that called for new approaches to lawmaking and law enforcement. We also argue that courts cannot simply take over regulatory functions. In fact, if the same proactive

tossing a coin. In a world where everything was precisely foreseen, the state could hardly do anything and remain impartial.” Friedrich A. von Hayek, \textit{The Road to Serfdom}, (1944) p. [].


\textsuperscript{50} See Posner ibid at p. []
enforcement and ex ante lawmaking rights were performed by courts, this would turn them into regulators. Nevertheless, we do recognize the importance of political economy for decisions regarding the subject matter, timing and scope of regulation, and plan to address these issues in future research.

d. Observers

Our theory is largely consistent with analytical accounts by contemporary observers of the emergence of state regulation of financial markets. Landis, the first chairman of the US Securities and Exchange Commission (SEC), explains the emergence of the administrative process, which today is usually referred to as the regulatory state, in his 1938 book with the growing complexity of social and economic relations in the process of industrialization on the one hand, and the inadequacy of judicial law making and law enforcement under this conditions on the other.\footnote{Landis (1938) quoted in note [] above.}

He views the rational for the emergence of the administrative process as the need for “uninterrupted supervisory interest” - what we call monitoring – which he describes as “incompatible with the demands of judicial office”\footnote{Ibid at p. 33.}, and uniformity in the approach to different cases, which can be achieved by the judiciary process only through the time consuming process of appeal to higher courts.\footnote{He adds to these considerations that lawmaking in some areas requires practical expertise rather than general judicial reasoning (“there are certain fields where the making of law springs less from generalizations and principles drawn from the majestic authority of textbooks and cases, than from a “practical” judgment…”).} In addition, he argues that the process of litigation has left “too much in the way of the enforcement of claims and interests to private initiative”.\footnote{Ibid at p. 34} The slow process of adjudication created “the demand for a power to initiate action”.\footnote{Ibid at p. 35.} This was the case in particular in areas of substantial inequality of economic power between potential litigants. While this can be remedied in part by shifting the prima facie burden of proof, ultimately a state agent with the
power to initiate law enforcement is required. Landis also points out that an important distinction between the judicial process and the administrative process is the latter’s power of independent investigation, which he deems crucial both for initiating enforcement and for the development of adequate rules.

Landis clearly recognizes that the administrative process often combines lawmaking and law enforcement functions that in accordance with the classic division of powers have been allocated with different branches of the government. However, he points out that the type of remedies effectuated by the administrative process differ from enforcement mechanisms imposed by courts. Moreover, he argues that this combination was a response to the inadequacies of the judicial process. Judges and judge made law were slow to respond to changes in the environment and sometimes even used their lawmaking power to dislodge attempts by the legislature to modernize the law. Landis points to the importance of coordination between policy-making and enforcement when regulating the industrial enterprise. Only such a coordinated effort can ensure effective enforcement. He also shows that the administrative process is not without checks, even when lawmaking and law enforcement functions are combined in one agency. The most important checks he lists include the narrow field of activity of regulators as compared to courts; the professionalism of the regulator; the need to produce facts to sustain an order; and the independence of administrative tribunals, which is ensured by a division of labor within the administration; and judicial review of administrative orders.

e. Summary

56 “No one can fail to recognize that there are dangers implicit in this combination of functions in an administrative agency”, p. 56.
57 This one statement seems to be consistent with the claim made by Glaeser and Shleifer in a recent paper that the emergence of the regulatory state can be explained by the fact that the judiciary yielded to strong economic interests. See Glaeser and Shleifer []. However, there is little further substantiation of this claim in the text. In fact, Landis’ observations seem to be more consistent with our claim that incompleteness of law rendered existing lawmaking and law enforcement mechanisms ineffective in an area as highly susceptible to socioeconomic change and as loaded with potential negative externalities as financial market
The theory of the incompleteness of the law is closely related to a number of existing theories and consistent with contemporary analysis of the emergence of financial market regulation in the first half of the 20th century. We propose that its major contribution is to offer an analytical framework for assessing the allocation of residual lawmaking and law enforcement rights given incomplete law.

III. The Incompleteness of Law and the Evolution of Financial Market Regulation in England

In this part of the paper we use the development of financial market regulation in England as a case study as an illustration for the theoretical framework that was developed in Part I. Since financial market regulation is too broad a subject, we limit the analysis to the disclosure regime for initial public offerings and/or listing on stock markets.

The choice of jurisdiction was motivated by several factors. England was not only the first industrializing economy, but also the first to develop a sophisticated financial market for corporate securities. Being the mother country of the common law, England offers an excellent case for testing the effectiveness of judge made law in coping with challenges of rapid socioeconomic and technological change that accompanied the development of financial markets. Common law is known to evolve incrementally as new cases are brought to court. In fact, a major part of judicial reasoning is to distinguish new cases from old ones and to determine, whether existing law extends to factually new cases. While theorists of the common law do not use the term “incompleteness of the law”, the idea that the common law is constantly challenged by new developments is widely acknowledged.58 As noted above, some scholars have argued that this

58 Compare only standard text books on legal methods, such as Jane C. Ginsburg, Legal Methods - Cases and Materials, (1996).
process is more likely to achieve efficient law than top down imposed legislated law.\textsuperscript{59} Using the case law on misrepresentation of information as an example, we seek to explore the effectiveness of lawmaking and law enforcement in the hands of courts in an area that was and still is highly susceptible to socioeconomic and technological change, and that is likely to suffer from negative externalities as a result of harmful actions.

Moreover, in light of the extensive literature on the regulatory state that emerged in the U.S. during a particular period of time, it seemed advisable to focus on another country, where political and economic conditions were quite different. In fact, financial market regulation in the United Kingdom has been lauded as vastly superior to the regulatory model that was created in the U.S. following the 1929 stock market crash.\textsuperscript{60} However, closer inspection reveals that regulatory functions emerged in England long before the Big Bang reforms of 1986. Since the late nineteenth century, the London Stock Exchange gradually assumed the right to screen companies that wished to list on the exchange, and to issue disclosure rules.\textsuperscript{61} In addition, the Department of Trade and Industry as well as Company registrars carried out some functions that were centralized in the US style securities regulation. Using the UK as an example to show the growing demand for ex ante lawmaking and proactive law enforcement should therefore give more pause to think about the tradeoffs between courts and regulators as residual lawmaking and law enforcement rights.

In the subsequent analysis, we will first address the evolution of contract and tort law in relation to misrepresentation of information in a prospectus (1). In section 2) we will analyze the legislative responses to the challenges posed by the evolving securities market. Finally, in section

\textsuperscript{59} See Rubin and Priest op cit. at [].
\textsuperscript{61} For the purpose of this paper, we do not distinguish between state and non-state regulators. The reason is that we focus our analysis on the responsibility of issuers of securities to ensure that investors receive relevant and truthful information about the undertaking in which they are about to invest. From the
3 the emergence of a regulatory framework will be discussed, which added proactive law enforcement by a regulator to the classic reactive law enforcement by courts.

1) The Incompleteness Criminal, Contract and Tort Law

England was the first country to develop a liquid market in corporate securities. The emergence of a market for financial instruments raised the fundamental question, whether and to what extent existing law was applicable to these transactions. Under English law, shares were considered personal property, which could be used and transferred as any other asset. By implication, general principles of criminal, contract, and tort law applied. The major principles of these areas of the law had been developed over centuries. The evolving market in securities rendered many of these principles highly incomplete as transactions in rights embodied in paper challenged basic assumptions that had earlier determined the threshold for criminal or civil liability, and the allocation of risks between the parties to the transaction.

a) Criminal law

As other areas of the law, criminal law in England developed primarily through case law. The first statutory law to address the scope of criminal liability of those responsible for publishing and

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62 Even in this country corporate securities surpassed government bonds as the dominant paper traded on stock exchanges only in the second half of the nineteenth century. In 1853, 70.2 percent of the securities had been issued by the British government or other UK public bodies. In 1900 they accounted only for 13.5%. The most substantial increase came from securities issued by financial institutions (increase from 1.1% in 1853 to 6.4% in 1900) and commercial enterprises (increase from 1.8% in 1853 to 9.6% in 1900). Railway securities made up the largest fraction of non-state securities (18.5% in 1853, 43.4% in 1900), but the growth can be largely attributed to listings of foreign, in particular, of US railway companies. For details, see Table 3.2 and 3.3 in Ranald C. Michie, *The London Stock Exchange: A History*, (1999) at pp. 88, 89.
disseminating a prospectus was the Larceny Act of 1861. It established criminal liability for directors, company managers, and others who knowingly included in the prospectus false information that was material. The act clearly requires intent, which proved difficult to establish. It is also noteworthy that the crime is only a misdemeanor, not a felony. Moreover, the Act addresses only the inclusion of false information, not the omission thereof. Case law increasingly revealed that the lack of disclosure was at least as damaging to investors as the inclusion of false information.

Comprehensive criminal statistics are not available, but secondary sources suggest that only relatively few criminal charges were brought successfully against key figures in the speculative bubbles that England experienced in the nineteenth and early twentieth century. One explanation is the rather high threshold criminal charges must meet in specifying the types of actions that would be punishable. This is fully consistent with out theoretical analysis. Recall that criminal law is subject to the nulla poena sine lege constraint, which constraints state power to prosecute and punish only on the basis of a firm legal foundation. At the same time, this makes criminal law incomplete in the sense of Type 1 incompleteness, described above.

Over time, the courts relaxed these principles somewhat, but only reluctantly, as demonstrated in a finally successful criminal charge against a famous company promoter of the 1920s, Kylsant. The prospectus of a mail steam shipping company promoted by the defendant

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63 Larceny Act, 1861 (24 & 25 Vict. c. 96), s. 84
64 The exact wording is: “Whosoever, being a director, manager, or public officer of any body corporate or public company, shall make, circulate, or publish, or concur in making, circulating, or publishing, any written statement or account which he shall know to be false in any material particular, with intent .... to induce any person .... to entrust or advance any property to such body corporate or public company .... shall be guilty of a misdemeanour. ....”.
65 See the discussion under [] below.
67 Another reason is the lack of capacity. In this regard it is noteworthy that England established a public prosecutor only in the 1870s. Previously, victims of criminal acts acted as prosecutors. Compare David Philips, Crime and Authority in Victorian England, (1977). Fraud actions were notoriously difficult to prove. Only after WWII was an Anti-Fraud taskforce established at Scotland Yard. The Roskill Report completed in 1986 still found fraud prevention still highly wanting. This led to the creation of the Serious Fraud Office (SFO), which is part of the UK criminal justice system.
disclosed adequate figures about the performance history of the company in question. It did not mention, however, that in recent years business had slowed considerably and the company had made substantial trading losses. The court considered the 1868 Larceny Act, which establishes criminal liability only for the inclusion of wrongful information. In an appeal against the lower court’s conviction, the court had to clarify whether it was permissible in criminal law to extend the wording of the statute and convict under the law for omitting information from a prospectus. The court held that although a criminal act must be “strictly construed”, a criminal conviction was possible. It argued that criminal liability for omitting facts was covered by the wording of the statute. Even when each statement in the prospectus was literally true, the entire prospectus could be regarded as false, because of what it failed to state. This clarification came over sixty years after the Larceny Act had been adopted.

Nevertheless, criminal convictions remained relatively rare. The legislature attempted to enhance the state’s ability to punish violators by revising criminal statutes as well as by allocating additional resources to law enforcement agencies. In 1939, the Prevention of Fraud (Investments) Act was adopted to address the outbreak of fraudulent share pushing in the late 1930s. The Act was replaced in 1958 by an Act of the same name. It extends criminal liability to reckless inclusion of wrongful information in secondary offerings and also mentions the omission of material facts, where previously only intentional acts could be punished. In addition, the Act now imposed criminal liability on the dissemination of information concerning the issuance of

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69 Prevention of Fraud (Investments) Act, 1958, 6 & 7 Eliz. 2, 380. Art. 13 (1) (a) of the Act stipulates that “any person who, by any statement, promise or forecast which he knows to be misleading, false or deceptive, or by any dishonest concealment of material facts, or by the reckless making of any statement, promise or forecast which is misleading, false or deceptive, induces or attempts to induce another person to enter into or offer to enter into any agreement for, or with a view to, acquiring, disposing of, subscribing for or underwriting securities (…) shall be guilty of an offence, and liable to imprisonment for a term not exceeding seven years.”
securities unless this was done by way of a prospectus that complied with the provisions of the Companies Act – even if the information as such was correct.\textsuperscript{70}

The most important recent attempt to enhance criminal law enforcement in this area was the enactment of the fraud prevention act and the creation of a special state agency, the Serious Fraud Office in 1988, charged with investigating and prosecuting major fraud cases.\textsuperscript{71} The establishment of this agency came in response to short fallings of the existing justice system to deter and prosecute major fraud cases. Existing law was regarded as insufficient and the creation of the SFO was also seen as a way to support the development of more sophisticated laws to deal with cases of serious fraud. While the SFO does not exercise residual lawmaking rights, it helps prepare acts of parliament. It also supports law enforcement activities of the prosecution. Although it is one step removed from lawmaking and law enforcement, it thus combines important functions that we have associated with a regulator.

b) Contract Law

Contractual claims under common law require the existence of a contractual relation between buyer and seller. Contract law therefore addressed only cases in which investors bought securities directly from the person (or agent) responsible for the misrepresentation of information.

Contractual relations establish special obligations between the parties neither of them owes to others, which makes contractual claims relatively easy to establish. At the same time, courts sought to balance the rights and responsibilities of the contracting parties. One doctrine they developed along those lines is caveat emptor (let the buyer beware). The rule dates back to the


\textsuperscript{71} http://www.sfo.gov.uk/about/creation.asp.
early sixteenth century.\textsuperscript{72} Failure to examine a good properly destroys a claim based on contract. The doctrine assumes that both parties have equal access to information and reflects what was perceived to be a natural allocation of responsibilities between buyer and seller with conflicting interests. Trade in securities differed from trade in real assets in that it was more difficult for the buyer to examine the good he was buying. In fact, reliance on information provided by others, including the seller or intermediary, is the hallmark of financial market transactions. When transactions in securities expanded, the courts therefore faced the challenge of redefining the scope of the seller’s obligation to provide the buyer with information and the scope of the buyer’s obligation to make use of sources of information that were readily available to him.

The most important contractual remedy is rescission, i.e. the unwinding of the contractual relationship. Existing contract law ruled out the right to rescind a contract, if the buyer had affirmed it after he had discovered the facts that allowed him to rescind the contract. An obvious case is the continuous use of the good. The complex relationship between investor/shareholders and the corporation raised new questions as to what amounted to an affirmation of contracts: selling the shares? Advising a broker to sell them? Attending a shareholder meeting?

Finally, courts had to come to terms with the problem of balancing the rights of shareholders and creditors in a company with limited liability. The first statutory corporate law of England, the Companies Act of 1844 allowed for the free incorporation of companies subject only to registration, but did not grant shareholders automatically limited liability. This was accomplished only in 1855. The implication of this change was that creditors contracted only with the corporation, not with the shareholders and therefore could enforce their claims only against the former, not the latter. This new arrangement affected the contractual relation between the company and its shareholders. Should they be allowed to rescind the contract even when the

\textsuperscript{72} The formulation of this doctrine apparently goes back to Anthony Fitzherert’s Booke of Husbandrie, 1524 § 118, in which he warns the potential buyer of a horse: „If he be tamed and have been ridden upon, then caveat emptor.“ Heinz-Dieter Assmann, Prospekthaftung, (1985) p. 21 footnote 18.
company was bankrupt with the implication that they would receive their money back before creditors could enforce their claims?

The following analysis will discuss how courts have handled these three problem areas, caveat emptor, affirmation of contracts, and the balancing of shareholders’ and creditors’ contractual rights.\(^73\)

i) Caveat emptor

To illustrate the incompleteness of existing contract law with respect to trade in securities consider the following case. In 1865, Mr. Briggs acquired shares in a malt company. He had read the prospectus, which listed the production and storage of hops and malts as the firm’s main business activities. He was not aware, however, that the provisions of the prospectus were inconsistent with provisions in the articles of association. The latter was accessible through the Registrar of Companies and, indeed, the prospectus explicitly referred to this document. Mr. Briggs consulted the articles of association only after the shares had been allotted, and discovered a clause that permitted the directors of the company “to make advances of money upon hops and other produce to the growers, producers, or sellers thereof, and to such other persons as they shall think fit, and upon such security, negotiable or otherwise, as they shall deem expedient.” In other words, beyond the production and storage activities, the company also purported to engage in financial activities. Upon learning this, Mr. Briggs advised his broker to sell the shares and when this was impossible, because trading in these shares had been suspended, he sought to rescind the contract. The court argued that “the applicant for shares cannot plead ignorance of the clauses of the articles of associations”.\(^74\) Affirming the applicability of *caveat emptor* to transactions in securities, the court made it thus clear that it was the duty of the buyer to consult material readily

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\(^{73}\) The three areas are only a selection of the legal challenges transactions in securities posed to lawmakers and law enforcers, but a very instructive one.
accessible to him. Nevertheless, it did not take a final view on this issue, because it rejected the appeal for different reasons.\textsuperscript{74}

This ruling did not put matters to rest. The law was still incomplete, because it did not specify, how far the buyer’s obligation to inform himself would go. In a case decided only a year later by the House of Lords, it was held that where the prospectus was plainly false, the seller could not defend himself by suggesting “that he might have known the truth by proper inquiry”.\textsuperscript{76}

The relevant prospectus had disguised the fact that the concession for constructing a railway in Venezuela had yet to be acquired from middlemen, and that the cost of this transaction would consume ten percent of the capital the company was claiming to raise for the purpose of exploration. Instead, the prospectus created the impression that the necessary concessions had already been acquired. Under these circumstances, the buyer had every right in the words of Lord Chelmsford to ‘retort upon his objector’, “You, at least, who have stated what is untrue, or have concealed the truth, for the purpose of drawing me into a contract, cannot accuse me of want of caution because I relied implicitly upon your fairness and honesty.”\textsuperscript{77}

Given the information asymmetry between parties to securities transactions, the courts qualified the \textit{caveat emptor} doctrine, so that dishonest issuers could not use it as a simple defense. The result was that now the doctrine became less rigid, creating Type I incomplete law (broad, ambiguously defined standard). The scope of contractual remedies had been enlarged, but at the cost of greater uncertainties about the obligations buyers and sellers owed each other.

\begin{itemize}
  \item ii) Affirmation of contract
\end{itemize}

\\textsuperscript{74} Ex parte Briggs (1866) LR 1 Eq 483 at p. 484.
\textsuperscript{75} See below under Affirmation of Contracts.
\textsuperscript{76} Directors of Central Railway of Venezuela v. Kisch (1867) L.R. 2. H.L. 99
\textsuperscript{77} See ibid at p. 121.
Under contract law as it existed by mid-nineteenth century, a contractual claim to rescind the contract could fail, if the buyer took actions that affirmed the contract after he had learnt the facts that supported a rescission. 78 Existing law did not specify the types of actions that would be regarded as affirmation in the context of securities trading. Courts became increasingly concerned that buyers of securities would gamble on a happy outcome and hold the seller responsible only in case the gamble did not work in their favor.

In *Ex parte Briggs* discussed above, the court suggested that by requesting a broker to sell his shares, Briggs acted as the owner of shares, which indicated that he affirmed the contract and thus forfeited his right to rescind it. Since at the time he had knowledge of the contents of the articles of association and thus knew that facts that allowed him to rescind the contract, he implicitly affirmed the contract. 79 In the same spirit, the chancery court denied a shareholder the right to rescind a contract after he had actively supported the continuation of an investment project despite the fact that its terms clearly differed from those in the prospectus. 80 The court explained that the shareholder had the option to remonstrate at once and require that the prospectus be acted on, and otherwise rescind. After he had supported the deviation from the prospectus in an attempt to salvage the investment project, he was bound by the terms of the agreement. As a result, the company had the right to request the unpaid amount of shares he had subscribed to.

Other actions that were deemed by the courts to amount to an affirmation of contracts included attending shareholder meetings and voting on shareholder issues. 81 But could silence also be regarded as affirmation? In *re Scottish Petroleum Company*, 82 a shareholder had

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79 *Ex parte Briggs* (1866) LR 1 Eq 483 at p. 487.
80 *Sharpley v. Louth and East Coast Railway Company* (1876) 2 Ch.D. 663. In this particular case, the relevant shareholder was a local activist who strongly supported the construction of a railway of 17 miles to link the town to other places at the East coast, for which sufficient funding could not be raised. Subsequently he supported a shorter link, which eventually failed as well. [CHECK DETAILS].
81 For details, see Roller op cit at 78 pp. [].
82 (1883) C.D. 413.
subscribed to shares and paid part of the purchase price in the belief that the directors named in
the prospectus would actually carry out their duties. When two of the directors resigned shortly
after his shares were allotted, he requested to withdraw from the shareholder register and asked
that his money be returned. The company refused and after some communication back and forth,
the issue was left unresolved. A year later, the company was liquidated and the receiver
demanded from the shareholder to pay up his unpaid capital. The court held that, in principle, the
early resignation of the directors could justify the rescission of the contract. However, the
inaction on the part of the shareholder after the company denied his request for rescission was
regarded as an affirmation. While some time to take additional action is allowed for, once a
shareholder knows all the facts, “he ought to lose no time in repudiating”. But what, if the
shareholder did not know these facts? Could he then later rescind based on fraud? In 1896, the
House of Lord argued that a shareholder who was not aware of fraud, but discovered it when the
company charged him with payment for shares he had subscribed to, could rescind. He could
even wait until the company sued him before he declared rescission. 83

The case demonstrates that affirmation of contracts developed a new meaning in the
context of the relation between shareholders and corporations. Courts were reluctant to change
existing law to take account of these new relations. This position was frequently challenged in
litigation, because it put shareholders in a position, where they could only lose no matter which
decision they took. Since a sale of securities was considered an affirmation of contracts,
shareholders had to choose to either hold on to their shares, which were likely to lose in value if
the fraud allegations proved true, or give up any contractual claims they had. Similarly, the fact
that attendance at the shareholder meeting was considered an affirmation of the contract
essentially deprived them of the possibility to use their status as shareholder to inquire into the
affairs of the company.

iii) Rescission of Contract and Creditor Rights

Where rescission was possible and no affirmative action had been taken, shareholders could still lose their right to rescind to creditors of the company. Obviously, shareholders’ request to have their money returned or to be relieved from the obligation to pay up the full amount they had subscribed to always put creditors potentially at risk. Yet, this was a logical result from the recognition of the concept of limited liability, which was enshrined in the law in 1855. Creditors had claims against the corporation, not directly against shareholders. But would this enable shareholders to rescind their contract after the firm had become insolvent, entered into bankruptcy, or was liquidated? Courts were called upon to specify the meaning of the highly incomplete law and to delineate the rights of shareholders from those of creditors.

In *Oakes v. Turquand*\(^84\) the court ruled that once the creditors proceeded to enforce their claims against the corporation by filing for bankruptcy, shareholders had to live up to their responsibilities. Shareholders retained their claims against the person who cheated them, but lost their rights against the corporation. When exactly shareholders would lose their right to rescind remained subject of further litigation. In 1879 it was established that the formal commencement of liquidation procedures was not required, but that insolvency was sufficient.\(^85\) The issue arose when a shareholder commenced proceedings to rescind his contract prior to the beginning of liquidation procedures, but only after the company had become insolvent. In the eyes of the court, not the formal initiation of the procedure was crucial, but the fact that after a company had become insolvent, the assumption of new liabilities was no longer an affair of the company, but

\(^84\) (1867) L.R. 2 H.L. 325. Interestingly, the court itself notes the challenge posed to the law by these new companies. Lord Cranworth plainly stated that “when it became the habit and interest of persons engaged in commerce to unite in great numbers for carrying on any particular trade it soon became evident that the ordinary provisions of the laws of this country were ill adapted to the business of such bodies.” See ibid at p. 358.

\(^85\) See Tennent v. The City of Glasgow Banks and Liquidators (1879) H.L. 615.
of the creditors.\textsuperscript{86} However, in a case, where the shareholder had filed an affidavit stating his intention to file a counter-claim before the winding-up of the company was initiated, it did not matter that rescission was declared formally only after the commencement of liquidation.\textsuperscript{87}

iv) Summary

The basic principles of contract law date back centuries, yet the scope of their applicability has changed over time. Differences in the nature of assets or the type of transaction render existing law incomplete. The development of securities markets created new challenges for contract law and questioned the allocation of risks and rights and responsibilities that had been developed with different transactions in mind. As the cases discussed above have shown, courts proved quite capable of adapting existing legal principles to the changing environment. But they did not succeed in creating complete law as each solution created new questions. Once courts had accepted that caveat emptor would not stand in the way of contractual remedies if the defendant was fraudulent, the door had been opened for further challenges of the doctrine. Similarly, when courts decided that bankruptcy would stand in the way of rescission claims, they had not decided the case of insolvency.

It also became apparent that contract law did not offer powerful remedies for buyers of securities. Liquid markets meant that at the time a buyer securities discovered that something was wrong, the paper had passed hands several times and as a result the current holder did not have a contractual claim against the cheater – i.e. the corporation, its directors, or promoters. Moreover, the high turnover of companies that entered and quickly exited the market often meant that

\textsuperscript{86} Ibid at p. 622.  
\textsuperscript{87} In re General Railway Syndicate (Whiteley’s Case) C.A. 1900, 1 Ch. 365.
contractual claims were worthless by the time the fraud was discovered.\textsuperscript{88} Many claimants therefore chose to base their claims on tort, suing companies, their directors and promoters for deceit when they felt misled by information.

c) Tort Remedies

Unlike contractual claims, claims based on tort do not require a contractual relation between plaintiff and defendant. Investors who relied on wrongful information could therefore invoke liability against a broader range of actors under tort principles. The downside from the cheated investor’s point of view is that the threshold for tort liability is higher than for contractual claims. Tort law at the time required that the plaintiff had to prove intent or at least gross negligence to establish liability under tort rules. Furthermore, the principles of tort law had been developed on the basis of assaults against property, personal integrity or life. Existing principles could be easily adapted to clear cases of embezzlement, but did not fit as well in cases of misrepresentation of information. In other words, the evolution of securities markets necessitated the transition from a tort regime developed for “blue collar” type actions to those of “white collar” type ones, such as deceit.

By the mid nineteenth century, the basic requirements for a successful deceit claim can be summarized with the formula that “but for” the wrongful information, the other party would not have entered into the contractual arrangement. This formula was, however, of little help for determining how much weight would be placed on the wrongful information as the sole, primary, or just one of many causes that led to the acquisition of shares. Would any mistake, including misjudgments about future developments in the prospectus give rise to liability? What was required to establish intent of the seller: Must he have positively known that the information was

\textsuperscript{88} Shannon \textit{The Limited Companies of 1866-1883}, 4 \textit{Economic History Review} 290 (1933) at p. 292 calculates that of the 6,111 companies registered as limited liability companies in 1866-74, some 1,878 or
objectively false? What if he believed that the information was true even though this belief might be quite unreasonable? And finally, would buyers on the secondary market have a claim based on tort, if they had bought securities relying on the prospectus that had been disseminated for the initial public offering?

Tort law as it existed prior to the development of securities markets did not offer clear-cut answers to most of these questions and was thus highly incomplete.

i) Misrepresentation of Information

A prospectus was the instrument used by companies and their promoters to attract investors. As such it was used as much as a document that contained information about the investment project as a tool for advertising. Since 1844, companies wishing to issue shares to the public were obliged to publish a prospectus, but the law was initially silent on the contents of this document.\(^89\)

In 1867, a shareholder launched a lawsuit against the company and its directors for compensation claiming that he had been misled by a provision in the prospectus stating that the directors and their friends had acquired large proportions of shares in the company. In fact, none of them had taken a substantial stake.\(^90\) The shareholder argued that he had relied on this statement when subscribing to shares in the company, which meanwhile had been liquidated. An important question in this case was, whether the information about the stakes held by directors and their friend was \textit{material} for the transaction. The court stated that it was, without, however, giving much guidance as to how to discriminate between information that was material and information that was not. Obviously, materiality is a highly incomplete concept, the context of which can hardly be determined absent a detailed knowledge of the specifics of a case. This

\(^{89}\) See 1844 Companies Act [ADD PROVISION].

\(^{90}\) About 31 percent were abortive; from 1875-77 the rate was 33 percent; 1878-80 45 percent.
implied that residual lawmaking rights had to remain with an agent – such as courts – capable of exercising residual lawmaking rights after the fact.

In another case from the same year, the question arose, whether the omission of information could constitute deceit. The company in question had failed to disclose a contract that transferred a huge liability to it from the company whose legal successor it was.\textsuperscript{91} While the court had no problem acknowledging that the omission of material fact could amount to a misrepresentation of information, it denied liability in this case. It argued that statutory provisions on prospectus disclosure did not include an obligation to disclose contracts. In response to this decision, the CA was amended and a provision was inserted that required that a prospectus inviting the subscription of shares “shall specify the Dates and the Names of the Parties to any Contract entered into by the Company, or the Promoters, Directors or Trustees thereof (...) and any Prospectus or Notice not specifying the same shall be deemed fraudulent...”.\textsuperscript{92} The provision, however, had relatively little effect. Listing all contracts proved to be more confusing than illuminating to investors and certainly did not ensure that they would spot those contracts that were potentially harmful to them. Moreover, listing the dates and names of the parties to the contracts did not reveal their contents.\textsuperscript{93} A more comprehensive regulation of items that needed to be disclosed in a prospectus can be found in the revised CA of 1900.\textsuperscript{94} The law still required that contracts were listed, but excluded contracts carried out in the ordinary course of business or those concluded more than three years prior to the publication of the prospectus.\textsuperscript{95} Moreover, companies were required to state a place and time where these contracts could be examined. These revisions reflect attempts by lawmakers to specify disclosure requirements and thereby enhance the completeness of law regulating misrepresentation of information. They also

\textsuperscript{90} Henderson v. Lacon 1867, L.R. (Equity Cases), 249.
\textsuperscript{91} In re Overend, Gurney & Co. (1867), L.R. 325.
\textsuperscript{92} See Art. [38] of the 1867 CA,
\textsuperscript{93} Roller, op cit at note 78 pp. []
\textsuperscript{94} Art. 10 CA 1900, 63 & 64 Vict, p. 100. The items that had to disclose included the memorandum of association, the number of shares, the names of directors and proposed directors, among others.
demonstrate that lawmakers went through an extensive learning process as they proved to be incapable of foreseeing future developments each time they changed the law in response to evolving case law, which revealed the continuing incompleteness of the law. By the time the CA was revised in 1928 (consolidated in 1929), a detailed schedule listing the items that needed to be disclosed was included in the law.  

Not every misstatement gave rise to an action under existing case law, but only those designed to induce investors to buy. The difficulty in determining causality is illustrated by another case. The prospectus of a company invited subscriptions for debentures. It stated that the money was intended for alterations in the buildings of the company, to purchase horses and vans, and to develop the trade of the company, whereas in fact, the money was intended to cover existing liabilities. The court held that this statement induced investors to believe that the debentures would be a charge on the property, and since this was in fact not the case, held the directors to be liable. The court used this case to summarize the major elements of an action based on deceit. First, the prospectus must include not only “a mere statement of possibility, or of a contingency, or of an intention as to what might occur according to the person who is making the statement, but there must be something which amounts in the opinion of the Judge or jury (…) to a statement of a fact as existing which is not in truth existing.” The rather ambiguous phrasing demonstrates how difficult it was for judges to draw the line between facts and opinion. Second, the statement must have been made fraudulently. Fraudulent action according to the court does not require the willful telling of a lie. It is sufficient that a person who makes factual statements “recklessly, and so to speak, in a gambling spirit” willfully abstains from making additional inquiries and thereby endorses a statement without which investors would not have parted with their money.

95 Art. 10 (1.) (k) CA 1900, 63 & 64 Vict.
96 Art. 35 CA 1929, 19 & 20 Geo.5. refers to the Fourth Schedule attached to the act.
97 Edington v. Fitzmaurice (1884) C.D. 459.
98 Ibid at p. 465.
This definition of fraudulent behavior is quite narrow. By requiring recklessness the court implied that there was no liability for negligent misstatements. It is in this spirit of earlier case law that the landmark case Derry v. Peek, decided in 1889,\(^9\) has to be assessed. The prospectus of a railway company stated that approval by the relevant state authorities had been granted to convert an animal powered track into a steam powered one.\(^{10}\) In fact, approval had been granted only for parts of the track. After the company was wound up, the directors were sued for compensation by shareholders who had lost their money. The House of Lords confirmed that the statement in the prospectus was objectively incorrect. But it relieved the directors – “five men of good character and conduct” - of liability, because they honestly believed in the correctness of their statement. Without proof of fraud – and the burden of proof lies with the plaintiff – an action of deceit could not be maintained. The House of Lords reviewed earlier case law attempting to discern general principles of tort law. It criticized the attempt to do justice in individual cases rather than sticking to principles of established law. “It might, perhaps, be desirable to enact that in prospectuses of public companies there should be a warranty of the truth of all statements”,\(^{11}\) but existing law did not include such a provision. Essentially the message was that it was not for the courts to fill this gap and write a more complete law, but for the legislature to do so.

Applying our framework of the incompleteness of law, by clearly stating that negligent misrepresentation was not sufficient for establishing fraud, Derry v. Peek confirmed that fraud law was type 1 incomplete law. It required a high subjective threshold of liability and did not merely circumscribe areas of outcome that could result in liability. The rational, according to the court, was to avoid discouraging risk-averse people to engage in financial market activities (“the objection is (...) to the danger of driving respectable and responsible men from being promoters, and of substituting for them those who are neither”).

\(^{10}\) The prospectus stated explicitly that “the company has the right to use steam or mechanical power instead of horses”. See ibid at p. 6.
\(^{11}\) Lord Bramwell ibid at p. 9.
The legislature responded to the court's quest for greater completeness of the law by enacting the Directors' Liability Act (DLA) only a year after Derry v. Peek had been decided. Under this Act, directors and company promoters can be held liable for negligent misrepresentation of information. The Act stipulates that any untrue statement in the prospectus or other notice concerning the issuance of shares gives rise to liability, unless those responsible for the statement can prove that they had “reasonable ground to believe, and did up to the time of the allotment of the shares, debentures, or debenture stock, as the case may be, believe, that the statement was true”. In effect, the law lowered the threshold for liability by shifting the burden of proof for showing that the defendant had grounds to belief that the statement was true. Absent such proof, misrepresentation that results in damages gives rise to liability. Had the Act been adopted prior to Derry v. Peek, there is little doubt that the directors would have had to pay compensation to shareholders. The threshold for liability was lowered further with the adoption of the Misrepresentation Act in 1967. This Act does not specifically target securities, but deals more generally with misrepresentation of information. Under its provisions, even innocent misrepresentation can lead to liability, unless the offender demonstrates that he reasonably believed in the truthfulness of the information. In terms of our conceptual framework, the DLA and later the Misrepresentation Act shifted the incompleteness problem from a Type II to a Type I problem. It thereby signaled to courts that the scope of their residual lawmaking rights was more extensive than they had previously assumed and included cases, which they had dismissed earlier.

Outside the area of securities transactions, however, the principles of fraud law laid down in Derry v. Peek remained applicable. Only in 1963 did the House of Lords reduce the threshold for liability by stating that negligence could give rise to liability for misrepresentation of information. While the case was ultimately dismissed, it gave the House of Lord the

102 This was accomplished with the passage of the Directors' Liability Act in 1890..
103 UK ST 1967 c. 7.
104 Hedley Byrne & Co. v. Heller &* Partners (1963) All. E.R. 577. In this case a bank developed second thoughts about the financial position of a firm it was lending to. It contacted the firm’s regular bankers and
opportunity to revisit Derry v. Peek and related cases and restate the conditions for negligent misrepresentation. The Lords argued that in light of case law after Derry v. Peek decision, “it must now be taken that Derry v. Peek did not establish any universal rule that in the absence of contract an innocent but negligent misrepresentation cannot give rise to an action”. At the time Derry v. Peek was decided courts hesitated to extend the same standards of conduct to words that existed for deeds. However, this attitude had changed in the meantime. It was now widely accepted that words, i.e. information or advice, could give rise to liability for negligent conduct. The Lords were careful to point out that liability for negligence required a special relation between the parties. But they broadened the type of relations that could meet these conditions. In particular, they explained that a special relation need not be an implied or express contract, nor is a special relation confided to fiduciary duties. Rather it includes “all those relationships where it is plain that the party seeking information or advice was trusting the other to exercise such a degree of care as the circumstances required, where it was reasonable for him to do that, and where the other give the information or advice when he knew or ought to have known that the inquirer was relying on him”. This time the courts assumed greater residual lawmaking rights even without further instructions by the legislature.

ii) Liability to Whom?

_Hedley v. Byrne_ addresses an issue that had been repeatedly litigated over the years, namely to whom directors, company promoters and others responsible for the contents of the

 asked them to confidentially report on the financial standing of the firm. They responded “without responsibility on the part of the bank or its officials” that the firm was in good standing. Yet the firm soon failed and the bank lost substantial amounts of money. It sued the bankers who had given the incorrect information. Since a contractual relation between the two banks did not exist, the action was based on tort. The case was dismissed and upon appeal the House of Lord upheld this decision, mostly because of the clear statement that the information was given “without responsibility”.


106 Lord Reid ibid. at p. 583.
prospectus would be liable. As the above examples have shown, the information included in or omitted from a prospectus was crucial for establishing liability of those responsible for the prospectus. Clearly, a contractual relation with the acquirer of shares was not required for actions based on tort. This, however, did not mean that anyone who relied on the prospectus would have a claim. In order to establish liability they required that “there must be something to connect the directors making the representation with the party complaining that he has been deceived and injured by it.”\(^\text{107}\) In the case at hand, the plaintiff had acquired shares not directly from the company, but on the secondary market. The court argued that the prospectus was issued for the initial public offering. Absent any direct communication with secondary buyers, the directors were not liable to those who acquired shares on the secondary market.

This left secondary buyers for the most part without a real chance to recover their losses, as their immediate seller was not the one who had created or disseminated the wrongful information. It allowed issuers of shares to develop schemes by which they would target secondary buyers with a prospectus or other information without being held liable for wrongful information contained therein. Courts were soon confronted with such schemes, as their previous case law had virtually opened the door for designing strategies to circumvent Type II incomplete law.

Father and son set up a company to explore gold-bearing reef in Transvaal. Investors were invited to buy shares. The prospectus included information on the yield of gold from a ton of quartz, which was objectively wrong. The plaintiff did not buy shares upon receiving the prospectus. However, a few weeks later, a major newspaper carried an article with the headline “A big jump in Sutherland Reefs” alleging that there had been a very rich discovery of gold. The plaintiff now bought shares on the secondary market, basing his decision on the prospectus – which he had kept – and the good news reported, only to find out later that the son had initiated the newspaper article and that it was part of a fraudulent scheme designed by father and son. The

\(^{107}\) Lord Chelmsford in Peek v. Gurney (1873) L.R. 377 at p. 399.
court distinguished this case from *Peek v. Gurney* by arguing that the publication of the prospectus and the launching of the newspaper article was part of a comprehensive scheme designed to induce those that had earlier read the prospectus to buy. It therefore held in favor of the investor. The definition as to what amounted to a comprehensive scheme that would extend the liability of those responsible for the contents of the prospectus to buyers on the secondary market, however, was left to future case law. Once again, case law rendered existing principles more rather than less complete, establishing only some broad guidelines to delineate the scope of liability.

Changes in financial practice over time questioned the principle that the prospectus was addressed only at initial purchasers even more fundamentally. In 1996, a case was brought by investors who had acquired securities of an unlisted company both in the initial public offering and subsequently - a much larger amount - on the secondary market.\(^{108}\) For both investment decisions they had relied on the information stated in the prospectus, which proved to be incorrect. The defendant argued that he could not be held liable for the share acquisitions on the secondary market. Yet, the court held with the plaintiff arguing that commercial practice had changed substantially over the years. It argued that the purpose of a prospectus today is not merely to induce investors to become placees during the initial offering, but also to induce the public to make after-market purchase. In light of this changed practice, the relation between the issuer and the secondary buyer revealed sufficient proximity to establish liability. The decision acknowledges the principle that there must be a special relation between plaintiff and defendant in a tort action based on deceit, but greatly expands the scope of relations that fell into this category.

iii) Summary
Until well into the nineteenth century, the major realm for tort actions were deeds committed against persons or assets. With the development of financial markets words achieved an importance that necessitated a reassessment of the type of actions that could give rise to tort liability. Courts struggled to balance the interests of investors in effective legal protection with the need to limit the scope of liability in order not to suffocate markets. They also were careful to guard well-established legal principles of tort law against a quick overhaul in response to only one segment of the market (securities transactions). These multiple objectives led only in few cases to the development of clearer, more complete, case law. More often than not, courts extended existing principles to capture the new cases, thereby blurring the lines and creating more incomplete law capable of capturing many different actions. Examples include the acknowledgment that words could weigh as heavily as deeds, the extension of the scope of liability to claimants that had not acquired securities in the initial offering but only on the secondary market, and the lowering of the threshold for liability from gross negligence to simple negligence. This strategy had to increase uncertainty about what actions could would lead to liability and thus undermined the deterrence effect of the law. An exception to this rule is Derry v. Peek. In this case, the court rejected the idea of holding directors liable for negligent misconduct, but referred such a decision to the legislature. The legislature indeed intervened, writing a law that was substantially broader than existing case law and as such more incomplete.

2) The Emergence of a Regulator

In the above sections we have shown that neither case law nor statutory law can offer fully satisfactory solutions for an area of the law that not only is subject to considerable change over time and as a result remains highly incomplete despite all efforts to readjust it, but where harmful actions can produce substantial negative externalities. This section explores the

108 Possfund Custodian Trustee Ltd and Others v. Diamond and Others (1996), 2 All ER 774.
emergence of regulatory functions in England. As noted at the outset, we do not emphasize the nature of the regulator, i.e. whether it is private (i.e. a stock exchange), or state. We are mainly interested regulatory functions, including residual lawmaking and proactive law enforcement, which in England has been carried out by both private and state institutions. The major stock exchange in England, the London Stock Exchange, increasingly assumed regulatory functions. In addition, the Department of Trade and Industry was vested with regulatory powers by the legislature. Recent changes have consolidated regulatory functions first in the Securities and Investment Board (SIB) and subsequently in the Financial Services Authority (FSA), which now regulates, among others, the issuance of shares to the public.

Evidence for the stock exchange assuming regulatory functions over issuers of securities is available as early as 1827. The Minutes of the – then - foreign stock exchange\(^{109}\) stated that the exchange’s committee in charge of admitting securities had refused the admission of securities by a foreign state on the grounds that it was in default on previous obligations.\(^{110}\) The case demonstrates the exchange’s willingness and capacity to stop actions – the issuance of securities to the public – that was likely to result in harmful outcome. The incident, however, remained an isolated event. General rules for the admittance of securities were not established for some time. Securities were admitted on an ad hoc bases, primarily with consideration to the expected liquidity of the shares and thus to its profitability for members of the exchange.\(^{111}\)

It took some time for the LSE to realize that it had to play a role in protecting not only the interests of the exchange and its members, but of the broader investor community – in fact, that these objectives were linked. The crucial role of the exchange in protecting investor interests in England was underlined by the fact that public offerings were made through the exchange. The two acts – issuance of shares and listing them on an exchange – were conducted as one,

\(^{109}\) The foreign stock exchange subsequently merged with the London Stock Exchange.
subjecting virtually all publicly traded companies to the rules of the exchange.\textsuperscript{112} It is therefore not surprising that stock exchanges were regularly blamed for stock market scandals.\textsuperscript{113} It also became increasingly clear that the quality of the securities traded affected the business of the exchange and its members.

Towards the end of the nineteenth century, the LSE developed some screening device, primarily in the form of disclosure requirements. These requirements were low by today’s standards, but exceeded the requirements of existing company law at the time. The rules required the submission of a copy of the prospectus and a statutory declaration stating the amount allotted to the general public and to others, the amount paid up, and that the securities were ready to be issued. In the case of new companies a statement of capital and the nominal value of shares had to be submitted.\textsuperscript{114} Only companies that complied with them would be quoted on the exchange.

Initially he exchange did not have much capacity to engage in continuous monitoring. However, it revisited its law enforcement role in the 1930s. By that time, the market for domestic securities had become the exchange’s core market. By 1928/29, statutory law had surpassed the exchange’s disclosure requirements – effectively imposing its own regime on the otherwise largely autonomous exchange.\textsuperscript{115} Nevertheless, investor confidence was falling in the wake of

\textsuperscript{112} This practice is in marked contrast to the practice in continental Europe and in the U.S. In continental European countries, listing is separate from the public issuance of shares. In fact, France and Germany require that shares are place before the company can be registered – although it is of course possible to place the shares among a smaller circle of shareholders and disseminate them more widely through a subsequent increase in capital and secondary offering, or for the original shareholders to sell them after the company has been established. The major difference between the U.S. and England is that in the U.S. many companies are traded over the counter rather than on an official exchange. For an analysis of the differences in issuance between continental Europe and the U.S., compare Friedrich Kessler, \textit{The American Securities Act and Its Foreign Counterparts: A Comparative Study}, 44 \textit{Yale L.J.} 1133 (1935) at p. 1136. For a comparison between the law governing initial public offerings in the U.S. and England after the adoption of the Securities and Exchange Act in the U.S., see John Hanna & Edgar Turlington, \textit{The Securities Act of 1933}, 7 \textit{S. Cal. L. Rev.} 18 (1933).

\textsuperscript{113} The attitudes of the public at large about stock exchanges in mid-nineteenth century England are well captured in Stuart Banner, \textit{Anglo-American Securities Regulation- Cultural and Political Roots, 1690-1860}, ). For a critical review of this book, see Mahoney [ADD].


\textsuperscript{115} The relevant law was the Prevention of Fraud (Investments) Act of 1939, which, however, went into force only in 1944.
wide spread share-pushing schemes in the early 1930s, which the law had not been able to prevent. The LSE came under increasing pressure to either improve its regulatory regime or face more extensive state intervention.\textsuperscript{116} The LSE reacted by imposing more stringent disclosure requirements and by enhancing its capacity to screen the information that was submitted. That this indeed amounted to an improvement of the exchange’s regulatory standing was recognized in the 1948 revision of the Companies Act, which established the most extensive legal disclosure requirements under English law. Notably, however, it exempted companies who had made adequate disclosure under the exchange’s rules, a clear indication that the lawmaker was satisfied with the exchange’s regulatory activities.

After 1948, the LSE further extended its role as regulator of companies listed on the exchange. It now required audited financial statements.\textsuperscript{117} In addition, since 1954 the exchange requires the disclosure of directors’ remuneration and since 1965 of semi-annual reports. To ensure correctness of the information submitted, the exchange relied extensively on the standards of the issuing house, sponsoring broker and the professional auditing bodies.\textsuperscript{118} However, through its own Quotation’s Department, the LSE reviewed the information submitted and on this basis approved - or disapproved - the quotation of the securities. The benchmark for the Quotations Department to this day is not simply a list of detailed items, but a broad – in our terms highly incomplete – rule that requires companies to submit all information necessary for investors to make an informed judgment.\textsuperscript{119} The exchange thereby reserves the right to tailor the information it requests from specific companies. The LSE has continuously changed its disclosure requirements.

\textsuperscript{117} Initially, financial statements for the past ten years had to be disclosed. In 1973 this was reduced to five years. See George J. Benston, \textit{Corporate Financial Disclosure in the UK and the USA}, (1976) p. 27. Today, three audited financial statements for a period of only three years is sufficient.
\textsuperscript{119} The Admission and Disclosure Standards of the LSE as of May 2001 include a provision that states that issuers must comply with all provisions set forth in the “Standards” of the exchange. However, in addition, the exchange “may make additions to, dispense with or modify the application of Standards either unconditionally or subject to conditions) in such cases and by reference to such circumstances as it considers appropriate.” Compare 4.2. of the Admission and Disclosure standards.
requirements over the years, which is in marked contrast to the statutory legal framework, which hardly changed after 1948.\textsuperscript{120}

The only competitor to the exchange’s role as regulator of issuers prior to the Big Bang reforms of 1986 was the Department of Trade (DT) (later Department of Trade and Industry, DTI). The 1948 CA explicitly allocated to the DT the power to instigate investigations, request books and information from corporate directors, and bring proceedings in the name and on behalf of shareholders.\textsuperscript{121} The DT even had the power to adapt the disclosure requirements stipulated in the law, i.e. to exercise residual lawmaking rights over these issues. However, this came with important strings attached, namely that these regulations could not “render more onerous the requirements” stipulated in the law.\textsuperscript{122} This provision substantially restricted the DT’s residual lawmaking rights. Perhaps not surprisingly in light of these constraints, the DTI did not develop into an active regulator. It did not publish detailed rules and regulations regarding disclosure requirements, nor did it routinely examine reports that companies submitted. The only cases when the DT would take action were cases “when fraud or misfeasance is in question and damage has been caused”.\textsuperscript{123} In other words, the DT adopted a passive and primarily reactive enforcement policy even though the law had allowed it to play a more proactive enforcement role.\textsuperscript{124}

The Big Bang reforms of 1986 constituted a major overhaul of the system of financial market regulation in the U.K.\textsuperscript{125} Nevertheless, the exchange’s jurisdiction over newly issued shares to the public was not fundamentally altered. Part IV of the Financial Services Act (FSA) of 1986 Act on “official listing of securities” explicitly designates the Council of the Stock Exchange as the

\textsuperscript{120} For a critique, compare L.C. B. Gower, \textit{Review of Investor Protection}, (1982) at p. [].
\textsuperscript{121} See §§ 431-35 1985 CA.
\textsuperscript{122} Quote section
\textsuperscript{123} Direct quote from the report by the Jenkins Committee of 1962 in George J. Benston, \textit{Corporate Financial Disclosure in the UK and the USA}, (1976) p. 23.
\textsuperscript{124} In part, this may have been the result of limited capacity at the DTI. For a comprehensive assessment of its role in proactive law enforcement of fraud cases, see the Report by the Roskill Committee. [ADD]
\textsuperscript{125} Add references
“competent authority” for this part of the Act. Its jurisdiction extended not only to securities traded on the official exchange, but also to securities admitted to alternative trading systems and those that were to be placed on markets of other EU member states. The only securities beyond its reach were unlisted securities.

To be sure, the fact that the FSAct explicitly delegated regulatory functions to the stock exchange marked a change in the history of financial market regulation. Whereas previously the stock exchange exercised rule making autonomously, it now carried out this function on behalf of and under the supervision of the state regulator. The state’s role was further strengthened with the adoption of the Financial Services and Market Act (FSMA) in 2000. The new law takes away much of the power that under the 1986 law had been delegated to the exchange. From now on, not the exchange, but a state agency, the Financial Services Authority (FSA) defines listing standards and approves the issuance of shares. An important reason for shifting regulatory competencies away from the stock exchange and to a state regulator is the growth of markets for securities outside the exchange. These securities have always been beyond the exchange’s regulatory powers.

The history of financial market regulation in England exemplifies the growing demand for residual lawmaking and law enforcement in ways that legislatures and courts could not accomplish. Flexible adjustment of entry requirements were crucial in order to keep up with market development at home and abroad. While the statutory lawmaker made some remarkable

126 Sec 142 (6) FSA 1986.
129 Sec. 79 (1) (a) FSMA.
progress in enhancing disclosure rules in 1928/29 and 1948 in particular, for the next decades the legislature again fell behind market developments and left the field to the exchange. With regards to law enforcement, it became apparent already in the nineteenth century that exclusive law enforcement by courts could enforcement was insufficient. The pace of market development and the amount of damages caused by harmful actions not only to parties of the dispute, but to investors at large and the reputation of financial markets evidenced serious underenforcement problems. The LSE may have assumed more extensive regulatory functions only reluctantly. In fact, it may have further delayed this process had not the government threatened with more direct intervention, which the exchange preempted by developing its own regulatory capacity. The main point is, however, that the exchange did assume these functions and carried them out with increasing effectiveness. The limits of private regulations, however, were reached once the structure of the market changed and trading on alternative markets increased substantially. In this new environment state regulation became inevitable.

IV. Incompleteness of the Law in Comparative Perspective

England is not the only country that struggled with the problem of law enforcement in an area that because of its constant change is prone to render laws highly incomplete. Other countries faced similar problems. A detailed comparison of responses to the problem of incompleteness of financial market law would go beyond the scope of this paper. A brief summary of the experience in the United States and Germany, however, will demonstrate first, that the demand for regulatory functions (proactive law enforcement combined with flexible lawmaking) was not limited to a particular jurisdiction, and second that misallocation of lawmaking and law enforcement rights may influence the development of financial markets in the long term.

1. United States
The general legal provisions to deal with misrepresentation of information in the United States were similar to those found in the UK prior to the Director’s Liability Act of 1890. As in the UK, case law increasingly revealed the limitations of these principles in ensuring effective law enforcement in financial markets where asymmetry of information was rampant and rapid economic change implied high levels of incompleteness of the law.

Nevertheless, courts did not feel compelled to develop principles that would mimic English statutory law. Although the “citadel of privity of contracts” had been eroded to some extent by the late 1920s, American courts refused to hold directors, company promoters, or accountants liable for negligent misrepresentation of information.\footnote{Ultramares Corp. v. Touche, 174 N.E. 441 (N.Y. 1931).} In fact, they extensively quoted Derry vs. Peek, the decision that had triggered the passage of Director’s Liability Act in the UK.

As late as 1931, the Court of Appeals of New York held that negligence was reserved for contractual relations between the defendant and the plaintiff, or required at least a duty on the part of the defendant “to act with the same care that would have been due under a contract of employment” (at p. 179). For fraudulent action it was not sufficient. The case Ultramares Corp. vs. Touche concerned the question whether an accounting firm should be held liable for certifying accounts that had been forged. While it was ruled out that the accountants positively knew about the fraudulent action, it was equally clear that they had made no attempt to verify changes in the books that were included by hand after the books had already been closed. The same court had ruled earlier that in product liability cases negligent conduct might suffice for liability. Yet, it felt compelled to distinguish those cases where “what is released or set in motion is a physical force” from cases where only “words, written or oral” will be released to third parties. In other words, although the accountants were clearly negligent, and knew that their reports would be transmitted to third parties, such as creditors, since they did not have a direct contractual relationship with those creditors, they should not be held liable for negligence. “Negligence alone is not a
substitute for fraud" (p. 29). This principle limited liability for misrepresentation of information more generally, including the issuance of securities.

In part, the problem of underenforcement that resulted from the incompleteness of law was mitigated by the fact that stock exchanges assumed extensive proactive law enforcement rights. In the U.S., the New York Stock Exchange emerged as the most important stock exchange. It was formally established in 1817 as a corporation. The original constitutive acts regulated members and traders. However, as early as 1853 did the exchange stipulate requirements for companies that wished to be listed on the exchange. They had to provide complete statements of shares outstanding and capital resources. In 1869 a rule was introduced that required all shares to be registered with a bank or other appropriate institution. In 1895 NYSE recommended, but not mandated, that all companies submitted annual reports with income statements and balance sheets. In 1923 it established a fraud bureau and in 1926 tightened listing requirements, encouraging companies to give equal voting rights to shareholders.

These attempts to develop a set of rules and proactive enforcement devices aimed at protecting shareholders could protect only investors of companies listed on that exchange. Realizing the limits of its own regulation as well as the competition from other exchanges, NYSE supported the enactment of the federal securities regulations in 1933/34. Since then it has focused its efforts on continuous disclosure rather than the initial offering of shares, which is covered by the SA registration requirements.

From the vantage point of the theory of incomplete law, the most important contribution of the 1933/34 securities regulations was the creation of regulator (the SEC) at the federal level with the power to specify, monitor, and enforce disclosure regulations. Individual states had addressed the problem of stock fraud for over two decades already. By 1933, 39 states had adopted so called

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131 Compare this with the LSE, which began to play a role as proactive law enforcer only at the end of the 19th century. See above [].
“blue sky laws”, which encompassed regulations for persons or entities wishing to sell securities to their residents. Most states introduced registration requirements for securities that were issued and/or traded within its jurisdiction allowing them to screen issuers and enforce the law proactively through entry requirements. Thirty-seven of the thirty-nine states revised and extended their antifraud provisions. The most sweeping definition of fraudulent behavior can be found in New York’s Martin Act of 1921 (§352).

Federal regulators faced the choice among different regulatory philosophies. One was to follow the New York example and rely primarily on reactive enforcement of anti-fraud provisions. The other was to expand proactive law enforcement, which was the choice they made. The core provision of the SA is that the distribution of any security is unlawful unless it has been registered (Sec. 5) and unless it is accompanied by a prospectus that meets the requirements further stipulated in the act. The definition of what constitutes a security under the act is very comprehensive, listing what seems to be inexhaustible list of papers that are regarded a security under the law.

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133 [Loss, 1958 #1239]
134 Essentially, any action that had the appearance of fiction, deception or fraud could trigger intervention by the Attorney General. He could investigate, subpoena witnesses and require the submission of books and paper. Failure to comply with a subpoena was deemed a misdemeanor. In addition, the Attorney General had the right to enjoin either a violation of the act or the sale of securities by the defendant in any capacity within the state. Violation of any injunction could be penalized with a US$1000 fine.
136 The 1933 Securities Act (SA) is concerned primarily with the initial distribution of securities. The Federal Trade Commission (FTC), which had been established in 1914, was initially charged with enforcing the SA. The Securities and Exchange Commission (SEC), was established only by the Securities Exchange Act (SEA) of 1934, an Act that addresses trading securities on the secondary market, i.e. with continuous disclosure. The SEC today administers five other statues, the Trust Indenture Act (1939), the Public Utility Holding Company Act (1935), the Investment Company Act (1940), the Investment Advisers Act (1940), and the Securities Investor Protection Act (1970).
137 According to section 2 it means “any note, stock, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, reorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or in general, any interest or instrument commonly known as a “security”, or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or
The SEC exercises extensive residual lawmaking rights. It has the power to regularly make, amend, or rescind those rules it deems necessary to carry out the provisions of the law “including rules and regulations governing registration statements and prospectuses for various classes of securities and issuers, and defining accounting, technical and trade terms under this Act” (Sec. 19). In order to ensure compliance with these rules and the provisions of the law, the SEC was vested with proactive enforcement powers. In particular, the SEC may administer oaths, and affirmations, subpoena witnesses, take evidence, demand the production of books, papers or other documents, which it deems relevant or material to the inquiry. The proactive enforcement powers are complemented with the right to initiate formal proceedings for a stop or refusal order and to initiate court proceedings including preliminary injunctions to enjoin actions.¹³⁸

This brief overview shows that the U.S. did not follow the English example in gradually adapting liability rules, long before moving to a system of regulation. It almost seems as if the U.S. skipped this process of trial and error and immediately moved towards a different enforcement system when it became apparent that harmful actions could result in substantial negative externalities.¹³⁹ But trial and error did take place in the U.S. The states’ experimentation with blue sky laws and the history New York Stock exchange offered important insights into the costs and benefits of a system that offered not only reactive, but also proactive enforcement. The timing and scope of the regulatory regime for financial markets established in 1933 was, undoubtedly, influenced by political factors. However the fact that first stock exchanges and later state legislators recognized the need for a different allocation of residual lawmaking and law enforcement rights suggests that other than political factors supported the emergence of a warrant or right to subscribe to or purchase, any of the foregoing.”. Note, however, that since 1996 the SEC may exempt “any security” from the provisions of the act. ¹³⁸ See Arts. 8 and 17 SA. In the words of Loss, these provision make “it possible to nip certain types of fraud in the bud rather than to rely exclusively on criminal prosecution after the deed” Louis Loss, The Fundamentals of Securities Regulation, (2001) at p []. ¹³⁹ Note that there is still a substantial debate about the causal relation between stock fraud and the market crash of 1929. See Roberta Romano, Empowering Investors: A market Approach to Securities Regulation, 107 The Yale Law Journal 2359 (1998) for a recent summary of this debate.
2. Germany

As in other countries, the early development of securities markets and the law governing corporations and securities in Germany was closely related to railway construction in the mid 19th century. In 1838, Prussia enacted a law on railway companies followed in 1843 by a corporate law. The law sought to prevent speculative bubbles of the kind that England experienced during the railway mania by upholding the requirement of state approval for the establishment of companies with limited liability (concession system).\textsuperscript{140} An increasing number of lawsuits suggested that the law was not very effective in preventing company fraud and thus protecting investors. Where fraud did occur, investors had recourse to general principles of contract or tort law that had been codified in regional codes (Saxony, Prussia), or could be derived from the \textit{ius commune}.\textsuperscript{141} As elsewhere, this law was not very effective in addressing the problem of misrepresentation of information. Judges and legal scholars agreed that the publication of a prospectus that included wrongful information alone was not sufficient to establish liability. They reasoned that the prospectus created only a \textit{demonstratio}, a general notification addressed at potential investors about the emission of securities to finance a particular undertaking, but was not a binding agreement.\textsuperscript{142}

The Lucca-Pistoja case of 1861, a landmark case on misrepresentation of information in prospectuses, demonstrated the limits of contract and tort law to deal with the challenges of securities market development. The undisputed facts that can be discerned from the series of lawsuits that were filed in relation to this incident are as follows: Goldschmidt Bank in Frankfurt

\textsuperscript{140} Heinz-Dieter Assmann, \textit{Die Aktiengesellschaft und das Aktienrecht von den Anfängen bis 1945, 1 Aktiengesetz Großkommentar} Klaus J. Hop & Herbert Wiedemann 13 (1992)

\textsuperscript{141} The \textit{ius commune} are Roman law principles that were recognized as the general principles of law throughout the continent and complemented local customs and codifications.
published an invitation for acquisition of bonds in a company that was constructing a railway
track from Lucca to Pistoja (Italy). According to the invitation, the operating company had
obtained approval by the government of Toscany to issue bonds worth 5.25 Million Lira, 3
Million of which had been reserved for underwriting in Germany. The offer was immediately
oversubscribed. After the company constructing the railway had collapsed and it had transpired
that the prospectus omitted crucial information, investors who had lost their money sued
Goldschmidt Bank.

Since the bank itself was not the issuer and had not acquired the bonds in its own name, it
could be held responsible only as an intermediary. According to the law, intermediaries were
liable only for intentional wrongdoing. The question courts needed to solve was whether under
the relevant Roman law doctrine (*actio emti*) intentional wrongdoing required only the
suppression of relevant information, or in addition to this the intent to cheat – which was
disputed. German courts held that liability for fraud required that the offender knew or reasonably
could have known that the information was wrongful – not unlike English case law prior to the
enactment of the Directors’ Liability Act in 1890. This interpretation was confirmed by the
*Reichsgericht* in 1886, and upheld in subsequent decisions.¹⁴³

The existing legal remedies for fraud were put to a new test when Germany liberalized its
corporate law in 1870 and allowed companies to freely register without a special concession
granted by the state. Shortly after this change, Germany experienced a major boom and
subsequent crash (1871-1873), which resulted in two legislative responses: The tightening of the
corporate code in 1884 and the passage of the Stock Exchange Law (*Börsengesetz*, hereinafter
SEL) of 1896. In combination, these statutes sought to establish comprehensive control over the

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¹⁴³ RGZ 39, 245 (247).
process of company formation and their listing on an exchange, as it was in these areas where lawmakers identified the greatest problems.\textsuperscript{144}

The corporate law created liability rules to guard the process of founding a company against misuse.\textsuperscript{145} However, procedural rules seriously limited the possibility to enforce these rules, as derivative actions are not recognized in German law.\textsuperscript{146} Moreover, courts declined to give subscribers of securities that had been defrauded a right to rescind their contracts. They were also denied the possibility of using fraud as a defense against paying up the amount they had subscribed for, as courts argued that allowing rescission (the exchange of shares for the money contributed to subscribed) would undermine the position of creditors.\textsuperscript{147}

Under the SEL, stock exchanges, of which there were many scattered around the country, were squarely put under state control by requiring that they were licensed by the regional state authority.\textsuperscript{148} At the same time, the law explicitly delegated important law enforcement powers to the exchanges. Each stock exchange was required to establish an admission’s office to scrutinize

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\item \textsuperscript{144} The dissemination of shares outside these two processes was left unregulated by German law. As Max Weber pointed out even prior to the passage of the 1896 law, this design created incentives to avoid the official exchange. Max Weber, \textit{Die Ergebnisse der deutschen Boersen enquête (1894)}, 44 Zeitschrift für Handelsrecht 45 (1895).
\item \textsuperscript{145} Members of the management and the supervisory board were obliged to scrutinize the founding process and were held liable for failure to do so. The underwriting statements (\textit{Zeichnungsschein}) had to include information stipulated in the law. The date of the corporate statute, the classes of shares and their respective proportion of total shares; name, status, and residence of the founders; the contract that formed the basis for the issuance of shares and the amount of the original contribution; the date at which underwriting becomes final. See Section 209 AktG 1884.
\item \textsuperscript{146} Shareholders representing at least 10 percent of total shares could request an audit of the founding process in court in case the general meeting rejected their motion (Sec. 222a AktG 1884). Founders, directors or members of the supervisory board were liable only vis-à-vis the company, not individual shareholders. For the company to launch a claim for compensation, it had to be supported by shareholder representing at least 20 percent of total stock (Sec. 223 AktG).
\item \textsuperscript{147} Friedrich Kessler, \textit{The American Securities Act and Its Foreign Counterparts: A Comparative Study}, 44 \textit{Yale L.J.} 1133 (1935). RGZ 68, 344 (decision of 8 May 1908) and RGZ 88, 187 (decision of 4 April 1916).
\item \textsuperscript{148} Historically, exchanges emerged as autonomous undertakings. For a historical overview of the history of stock exchanges in Germany, see Hanno Merkt, \textit{Zur Entwicklung des Deutschen Börsenrechts von den Anfängen bis zum Zweiten Finanzmarktförderungsgesetz. Börsenreform - Eine ökonomische, rechtsvergleichende und rechtspolitische Untersuchung} Klaus J. Hopt, Bernd Rudolph et al. 15 (1997).
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companies prior to being admitted to the exchange.\textsuperscript{149} The admission regulations themselves were drafted by the Upper House of the Parliament, not the stock exchange. In other words, the legislature retained residual lawmaking rights over this crucial area. As it turned out, the fact that the legislature retained lawmaking rights over this area, effectively retarding the evolution of listing standards as the rule making process in the Upper House proved much more cumbersome than comparable rule making at LSE or NYSE.

The SEL also included liability rules for misrepresentation of the prospectus. Responsible parties were defined as those who published the prospectus or initiated its publication. In practice this meant that banks, which acted as the main company promoters, were the most likely defendants in liability suits. These provisions proved to be of little practical relevance. First, they covered only the listing process, which companies could avoid by issuing shares outside the exchange. Second, they did not tighten the liability requirements as the UK Directors’ Liability Act of 1890 had done. Thus, only intent established liability.\textsuperscript{150} The German Supreme Court clarified only in 1998 that gross negligence was sufficient.\textsuperscript{151} Third, the provisions captured only misrepresentation of information in the prospectus that was issued for the purpose of listing a company on the exchange and did not cover the circulation of information for other reasons.\textsuperscript{152} Fourth, the defendant could choose to remedy the claim by taking back the security and repaying the original sale’s price. Giving the defendant this choice implied that investors who had sold the securities on the secondary market preempted a lawsuit as they were unable to return the security should the defendant choose rescission rather than compensation. This requirement was justified by the need to limit the potential number of claimants and to ensure some certainty.

\textsuperscript{149} This office was staffed by the exchanges with representatives from major banks and large industrial enterprises Heinz Bremer, \textit{Grundzüge des deutschen und ausländischen Börsenrechts}, (1969).
\textsuperscript{150} This was in contrast to an earlier draft that had sought to establish the standard of diligence in ones own affairs (diligentia quam in suis).
\textsuperscript{152} Heinz-Dieter Assmann, \textit{Prospekthaftung}, (1985)
(Rechtssicherheit) for the issuer of a prospectus. Finally, there were serious doubts as to whether only the original acquirer of securities or also secondary buyers had a claim.

The German law has remained remarkably stable over the years. Political and economic circumstances may not have been very conducive for the development of a vibrant stock markets for much of the 20th century. However, certainly in the post-war period a case could be made that the legal infrastructure was not very supportive either. The major tool to regulate financial markets was the stock exchange law and the state sponsored listing requirements. Stock exchanges operated under the supervision of regional governments. A federal securities regulator, the Bundesaufsichtsamt für das Wertpapierwesen [Federal Supervisory Agency for Securities] (BAW) was established in Germany only in 1994. However, its enforcement powers have been quite limited when compared to the US Securities and Exchange Commission, or even the English Financial Services Authority. Prior to the enactment of the Law on Prospectuses in 1998, law making and law enforcement rights of the BAW were largely confined to insider trading. Under the 1998 law, the BAW can impose fines of up to DM 1 Mln on companies failing to issue a prospectus, or for including wrongful information in the prospectus. However, it cannot enjoin actions or bring civil suits against a wrongdoer. By implication, this is left to investors, whose rights remain ill-protected both by substantive and procedural law.

Summary

The brief overview of financial market regulation in the U.S. and Germany demonstrates that different legal systems have allocated residual lawmaking and law enforcement rights quite differently. In the U.S., the SEC has assumed broad lawmaking and law enforcement powers

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154 Even with regards to insider trading, the law enforcement powers of the BAW were quite limited. They included monitoring, including the right to request additional information from likely violators, and the imposition of fines for failure to disclose relevant information. Investigations and punishment of share price manipulations was not part of its portfolio. See also Alfred Kueppers, Germans Look Longingly at SEC Model, The Wallstreet Journal [DATE and PAGE].

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under the 1933/34 legislation. Courts still play an important role in law enforcement, perhaps even more so, because the SEC can bring action, or can be a defendant in actions brought against decisions taken by the SEC. By contrast, in Germany, the legislature for a long time retained residual lawmaking rights over determining the contents of listing requirements. Reactive law enforcement by courts was not very effective, because of the difficulty shareholders faced in demonstrating loss, causality and intent or gross negligence. In addition, the limited lawmaking rights courts can exercise in a civil law system may have prevented investors from making use of this enforcement mechanism more aggressively. The stock exchanges developed into the most important proactive law enforcers, given their power to refuse listings or to delist companies. However, the regulatory reach of the exchange could be circumvented by placing shares outside the exchange. In fact, in the post war era, the unofficial market has played a substantial role in German financial market development. Law enforcement for these markets was left to the courts, which developed a remarkable set of case of law in dealing with misrepresentation of information.\footnote{Liability for misrepresentation of information was based on liability for pre-contractual obligations (\textit{culpa in contrahendo}), a flexible interpretation as to when a contract was deemed to have been concluded \textemdash; and the recognition of implied contractual obligations. These judge-made} In light of the problems we have associated with purely reactive law enforcement in this area of the law, however, law enforcement remained suboptimal.

V. Conclusion

In this paper we develop the theory of the incompleteness of law. We argue that law is intrinsically incomplete. Because lawmakers are unable to foresee all future contingencies, they cannot write complete law. We further conjecture that if law is incomplete, then it is impossible to design punishment that will optimally deter violations of the law. In other words, law enforcement that relies exclusively on deterrence combined with reactive law enforcement will be
sub-optimal. Therefore, other means of lawmaking and law enforcement are required to achieve optimal law enforcement. We suggest that proactive law enforcement combined with the right to adapt rules flexibly over time can solve is a solution. Regulators are agencies that are vested with proactive law enforcement and residual lawmaking rights. The emergence of regulators thus was a response to the need for a reallocation of lawmaking and law enforcement rights. Regulators perform functions that distinguish them both from legislatures as lawmakers and from courts as holders of residual lawmaking and law enforcement rights. While the scope of their lawmaking rights is limited, they are more flexible in adapting law over time than legislatures are. As proactive law enforcers they can initiate actions and exercise enforcement rights where courts by design must be passive and wait for others to bring action.

Incompleteness of law explains the emergence of regulators. However, on its own, it does not explain why we observe regulators in some, but not in all areas of the law. We argue that the tradeoff between proactive and reactive law enforcement is determined by the relative cost of regulation as compared to the expected harm that may result from a reactive law enforcement. The cost of regulation are determined by several factors, including the staffing and maintenance of a regulator, the cost of collecting information, and the cost of over- or under-regulation. The expected harm of reactive law enforcement is the harm society suffers, because reactive law enforcement cannot effectively prevent harm, including negative externalities, when law is incomplete. While externalities may not be a new argument in explaining the need for regulators, the contribution of this paper is to offer a theory that explains the importance of reallocating lawmaking and law enforcement rights in case of negative externalities. If law was complete, it should be possible to design law that would sufficiently deter actions that might create substantial negative externalities. Even under (somewhat) incomplete law it might be possible to deter actions if only sanctions could be pitched at a sufficiently high level. This, however, is limited by

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legal principles were often more stringent than those established by the SEL Heinz-Dieter Assmann, *Prospekthaftung*, (1985) (pp. 80).
the rule of law constraint. In other words, the externality argument is plausible only under the (explicit) assumption that law is incomplete and that the rule of law constraint limits the scope of available sanctions.

We apply this theory to the development of financial market regulation in England. We show that even in England, a country with a well functioning court system and access to courts to enforce investors’ rights, regulators increasingly assumed residual lawmaking and proactive law enforcement powers. This development was spearheaded by self-regulatory bodies, the stock exchanges – an important indicator that theories that regard the emergence of regulation primarily as policy intervention fail to explain the whole story. Developing listing and disclosure requirements was the stock exchanges’ response to the problem of under-enforcement of stock frauds, which ultimately threatened their business of organizing a stock market. The limits of the exchanges’ reach explains why state agents eventually took over. They can regulate not only official exchanges, but also securities traded elsewhere. With the growth of unregulated markets, this became ever more important.

Comparisons with other jurisdictions, including Germany and the US lend support to this argument. Germany has long focused on regulating exchanges, rather than the market for securities – leaving the latter by default to case law. Only recently were legal changes introduced that establish a more general regulatory framework. Still, the powers of the regulator have remained rather limited when compared with the UK or US regimes. In the US, the New York stock exchange also preceded state and federal regulation. The shift to a federal regulatory regime as early as 1933 can be explained with the size of the preceding market crash, and perhaps also with political conditions. But the important point is that political conditions may explain the timing, but do not fully explain the rational for the development of a demand for regulatory functions, which consist of flexible rule making and proactive law enforcement.
In future work we hope to integrate incentive problems and political concerns into our analysis. We also expect to extend the analysis to other areas of the law as well as to other legal systems, in particular to emerging markets.