THE COSTS OF LEGAL CHANGE

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In this Article, Professor Van Alstine analyzes the phenomenon of "legal transition costs." The great bulk of the attention of scholars and lawmakers has been directed toward improving the substantive approach of the law to real or perceived societal problems. What has been largely overlooked, however, is the friction inherent in legal change itself. Professor Van Alstine's analysis reveals that, whatever one's normative preferences, a legal system will incur costs simply in adjusting to the existence of new legal norms. Included among these are the costs of learning the content of new law; the uncertainty costs that flow from the loss of accumulated knowledge about the old law and from contending with the new; private adjustment costs, such as intraparty drafting and administrative costs, as well as the effect on interparty contractual networks; and the costs of formulation and interpretive error.

Professor Van Alstine argues that, because of their potentially significant impact, the presence and extent of these legal transition costs should be viewed as material inputs in decisions over the merit, form, and structure of proposed changes in the law. A recognition of transition costs does not mean, however, that there is something inherently inefficient about legal innovation. Rather, by exposing the tangible effects of undisciplined change, transition cost analysis focuses attention on the assimilation of new law. It thus highlights for lawmakers the importance of available drafting and implementation techniques that can mitigate transitional friction before it arises, and as a result facilitate both the acceptance and effectiveness of legal reforms.

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INTRODUCTION

One of the most enduring features in the law, like elsewhere in human affairs, is change. Technological innovation, advancement in human knowledge, and simple realignment of political preferences combine, in a democratic polity, in varied and complex ways to exert constant pressure on existing solutions to legal problems. To make any plausible claim of adequately responding to the dynamics of human progress, therefore, any given body of legal norms will be subject to a ceaseless process of review,
adjustment, and renewal. Put simply, the law, as Joseph Story observed well over a century ago, is constantly changing.

Through much of this nation's legal history, the steady pressure of progress did not translate into rapid transformations in the law. Reliance on common law courts as the preferred lawmaking institution, when paired with the doctrine of stare decisis, ensured that change occurred in a slow and incremental manner. Even at this nation's most profound, original moment of constitutional transformation, most issues of transition were avoided by broad acceptance of the accumulated wisdom of English common law. These early stabilizing mechanisms were bolstered by a view of the U.S. Constitution as an instrument that constrained, rather than facilitated, the adoption of new legal mandates.

The dynamics of the modern lawmaking enterprise, however, have substantially increased both the frequency and significance of legal transitions. The rise of legislative law, together with the advent of the administrative state, increased the typical size and ambition of lawmaking projects. Progress in the law thus has come to be characterized more by large legislative initiatives than by slow accretions of common law experience. Even within this realm, more recent resort to novel and hybrid processes—such as new forms of delegated lawmaking, congressional-executive agreements, and "legislative" treaties—has introduced a variety of more subtle forms of legal change.

1. Frederick Maitland's observation nearly two centuries ago is particularly apt:
   When we speak of a body of law, we use a metaphor so apt that it is hardly a metaphor.
   We picture to ourselves a being that lives and grows, that preserves its identity while every atom of which it is composed is subject to a ceaseless process of change, decay, and renewal.


3. Indeed, during the founding period a number of states expressly adopted English common law—to the extent not inconsistent with the new state constitutions and statutes—as the initial foundation for their legal systems. See, e.g., CONN. CONST. of 1818, art. X, § 3; MD. CONST., Declaration of Rights, art. V; N.H. CONST. pt. 2, art. XC; Act of June 13, 1799, ch. 821, §§ 4-5, 1799 N.J. Laws 608; Act of Apr. 15, 1786, ch. 35, 1786 N.Y. Laws 247; Act of Jan. 28, 1777, ch. 2, § 2, 1777 Pa. Laws 3.

4. Much of the early constitutional history of the United States was dominated by a focus on the limits of federal governmental power, as is made clear in the leading cases of the period. See McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316, 404-05 (1819) (emphasizing the constitutional limitation of federal governmental authority to specific enumerated powers); Marbury v. Madison, 5 U.S. (1 Cranch) 137, 176 (1803) (holding that "[t]he powers of the legislature are defined, and limited; and that those limits may not be mistaken, or forgotten, the constitution is written").

5. For a more detailed review of these diverse lawmaking processes, see infra notes 42-59 and accompanying text.
Adding to the complexity has been a proliferation of extra-legislative bodies with formal or informal powers to create law. Some, such as the U.S. Sentencing Commission, have effective lawmaking authority. These have been joined in recent years by the active (and increasingly controversial) participation of "private legislatures" and other drafting bodies in the preparation of legislative products. Increased activity at the international level has only added momentum to these trends. Growing cross-border interdependence has spawned a wide array of international institutions (such as the World Trade Organization (WTO), the World Intellectual Property Organization (WIPO), and the United Nations Commission on International Trade Law (UNCITAL)) with assorted powers to initiate, interpret, or implement binding legal norms.

The consequence of these developments has been an increase in the velocity of legal change—or what might be termed an acceleration of law. Viewed from one perspective, the progression from an incrementalist common law approach to comprehensive legislative regimes has magnified the transitional impact of law reform projects. Separately, the proliferation of lawmaking institutions with overlapping powers—local, state, national, and international—has multiplied the potentially relevant sources of law, and in the process added layers of complexity to the dynamics of legal change.

Unfortunately, policymakers and scholars have failed to appreciate the full implications of this acceleration of law. The great bulk of normative scholarly analysis remains directed toward changing the substantive approach of the law to real or perceived societal problems. Some, for instance, seek improvement based on notions of equality and fairness; others would pursue interests of efficiency or more objective calculations of net social welfare; still others prefer a more open discussion of aesthetics and morals. But

7. For further examples of this phenomenon, see infra notes 56–59 and accompanying text.
9. See infra notes 51–55 and accompanying text (examining the work of a variety of private bodies in drafting legislative products).
10. The role of these and other international institutions in the development of the law is discussed in more detail infra notes 60–65 and accompanying text.
however weighed or articulated, the customary focus has been on the substantive benefits of legal reform.

What has been overlooked is the friction inherent in change itself. Whatever one's normative perspective, a legal system will incur costs simply in adjusting to the existence of a new legal norm. These will arise, for instance, from the need to learn about the content of new law, as well as from an increased risk of uncertainty about its meaning and effect. Changes in legal directives likewise will compel intraparty adjustments and have subtle effects on interparty relationships forged around the old legal order. Indeed, transition costs reflect a systemic phenomenon. Although in differing degrees, they will arise from legal change in all fields, with all lawmaking structures (whether statutory, administrative, or judicial), and for all types of reform (regulatory, deregulatory, and so on).

Scholars have long recognized that legal change will create substantive winners and losers. New air quality regulations, for example, may benefit the populace at large; but they also may involve compliance costs for operations that have made long-term investments in reliance on the former legal regime. The focus of this work, however, has been on whether, and if so in what form and to what extent, a legal system ought to grant relief to those affected by substantive changes in the law. To be sure, the insights from these efforts have had a significant impact on their own plane. But they do not examine the inherent costs for all actors—whether beneficiaries, targets, or otherwise—that arise with the mere transition from an established legal norm to a new and untested one.

Indeed, in some cases transition costs may be so great as to call into question the value of an entire reform project. In the parallel situation of private product markets, economists have observed that the costs of switching from an established product may counsel against even the adoption of otherwise superior alternatives. Consider as a commonplace illustration


12. See Fisch, supra note 11, at 1094–118 (analyzing the propriety of substantive legal change that is retroactive in application); Kaplow, supra note 11, at 614–15 (noting that the focus of the analysis is on "whether and how transition policy should mitigate the gains and losses that occur" when a change in government policy affects existing investments, and discussing as examples various state policy changes that might limit the operation of an existing factory).

the so-called QWERTY keyboard layout. Other arrangements may be more amenable to efficient ergonomic use. But the loss of the accumulated experience and network benefits associated with the established layout, when combined with the learning and related costs of adjusting to a new one, militate against a change even to a purportedly superior arrangement.

Legal scholars also have applied these insights to private decisions to switch between legal products. Examples include standardized contract terms and an entity's chosen state of organization. These scholars, too, have suggested that the existence of switching costs may lead private actors to decide against change, even when an existing legal scheme may be substantively inferior to a proposed new one.

Extant approaches to the broader phenomenon of state-initiated legal change have failed to appreciate the significance of these considerations. The adoption of new positive law in fact may present a more challenging problem. In contrast to private switching choices, legal change is initiated not by those who will bear the costs of transition, but rather by third-party lawmakers. And the systemic neglect of this issue has created little incentive for lawmakers and scholars to consider such concerns in advocating changes to the law.

My goal with this Article is to fill a gap in our understanding of the impact of transition costs on the process of legal change. I begin with a background and perspective. Part I first expands on the contention that the


14. This layout takes its name from the first six characters on the top row of letters in a standard keyboard. It is one of the classical examples used by economists to illustrate the lock-in effects of networks that can develop around a product standard. For a review of this example, see Paul A. David, Clio and the Economics of QWERTY, AM. ECON. REV., May 1985, at 332. For a recent challenge to the network effect explanation, see S.J. Liebowitz & Stephen E. Margolis, The Fable of the Keys, 33 J.L. & ECON. 1 (1990).


17. See Kahan & Klausner, supra note 15, at 728 (observing that "[s]witching costs may create pressure for a firm to avoid adopting terms in a new contract that deviate from those in its existing contracts [and noting that this] may be true even if the previous terms are inferior to ones that have since been developed").
modern lawmaking enterprise has increased the velocity and significance of legal transitions. Part I then continues with an analysis of the broader structure within which legal change occurs. We will see that legal transitions appear in a variety of often subtle forms, ranging from progressive regulatory reform to conservative deregulation, and even to state-induced adjustment in areas otherwise left to private control. To set the context for the analysis to follow, I conclude Part I with an examination of why certainty and stability in the law is of value for legal actors in the first place.

Part II then turns to a core element of my claim: that a legal system can experience substantial friction from a mere change in the law, whatever its content or policy goals. There I undertake a detailed breakdown of the variety of what might be termed "legal transition costs." Included here are the costs of learning the content of new legal directives; the uncertainty costs that flow from the loss of accumulated knowledge of the old law and from contending with the new; private adjustment costs, such as intraparty drafting and administrative costs, and the effect on interparty contractual networks; and the costs of formulation and interpretive error.

I conclude in Part III with an examination of the positive implications of this analysis. Taken at its broadest level, an appreciation of legal transition costs should require that lawmakers and scholars incorporate a broader calculus in weighing proposed changes in the law. Legal innovation of course can be beneficial. Many existing bodies of law, for instance, are themselves highly uncertain, outdated, or otherwise defective, such that a failure to initiate change can itself be detrimental. Moreover, some important social causes will merit legal reform irrespective of the friction associated with their implementation (one might think here of the civil rights acts of the 1960s). Because of their potentially significant impact, however, the presence and extent of legal transition costs should be viewed as material inputs in any reasoned decisionmaking process on the merit, form, and structure of proposed changes in the law.

This final point is perhaps the most important. By exposing the tangible effects of undisciplined change, transition cost analysis focuses attention on the assimilation of new law. It thus highlights for lawmakers the importance of the available drafting and implementation techniques that can mitigate transitional friction before it arises. I examine these techniques in

18. See infra Part II.A.
19. See infra Part II.B–C.
20. See infra Part II.D.1.
22. See infra Part II.F; see also infra Part II.F (discussing the costs incurred by public entities from legal transitions).
the final sections of this Article. We will see in Part III\textsuperscript{23} that, with appropriate sensitivity, lawmakers may adopt structural and particularized approaches to ameliorate transition costs in advance, and in the process facilitate both the acceptance and assimilation of legal reforms.

A concern about the friction associated with legal change cuts across some of the most animated scholarly discussions of our time. One common theme among debates as diverse as those over statutory interpretation,\textsuperscript{24} the U.S. Supreme Court's certiorari policy,\textsuperscript{25} preferences for rules over standards,\textsuperscript{26} and the proper force of stare decisis\textsuperscript{27} is the tension between the value of adaptability in the law and the harm to interests of certainty and

\textsuperscript{23} See infra Part III.B (examining the means by which lawmakers can mitigate the impact of legal transition costs), III.C (analyzing the role of "mediating institutions" in assimilating changes in the law).


stability. Carefully considered, much of this tension can be captured in an appreciation of the legal costs of change itself. My goal here is to offer a framework for understanding this systemic phenomenon, and thereby assist in striking a proper balance between the need of the law to adapt to new environments and a sensitivity to the costs of doing so.

I. THE SIGNIFICANCE OF LEGAL TRANSITIONS

A. A Perspective

Prior to the ascendance of the modern nation-state, legal transitions bore little operative significance. Matters began to change beginning in the nineteenth century, however, as newly unified European political orders set about rationalizing and systematizing the law on a broad scale. The result was the creation of comprehensive “true codes” whose purpose was to establish unified legal regimes for all issues within their scope. Unfortunately, the statist drafters of the time dispensed with the attendant transitional concerns by simple legislative fiat: With a single stroke, they abolished all preexisting legal norms in their entirety. They then purported to avoid future

28. To paraphrase one scholar challenging new international norms, the question is whether the benefits of any particular change in the law are “worth the candle.” Paul B. Stephan, The Futility of Unification and Harmonization in International Commercial Law, 39 VA. J. INT’L L. 743, 780 (1999).

29. The concentration of power in early autocrats left little room for discussion of the impact of changes in the law. Even as absolute powers began to wane (notably in the private law) in the nineteenth century, the new lawmakers largely saw their role as one of distilling accrued historical wisdom. Indeed, the early development of law in many European countries began with a “reception” of the principles of Roman law established over a millennium before. FRANZ WIEACKER, A HISTORY OF PRIVATE LAW IN EUROPE WITH PARTICULAR REFERENCE TO GERMANY 69-158 (Tony Weir trans., Clarendon Press 1995) (1967) (describing the reception of Roman law in Europe in the 1500s). Most often, therefore, the goal of positive law in this early period was not to initiate change, but rather to ensure continuity with the past. See William Ewald, Comparative Jurisprudence(I): What Was It Like to Try a Rat?, 143 U. PA. L. REV. 1889, 2012-43 (1995) (discussing the influence of the German “historical school” led by Karl von Savigny in the development of the law in the 1800s).


31. The history of the French Code Civil is illustrative. See Angelo Piero Sereni, The Code and the Case Law, in THE CODE NAPOLEON AND THE COMMON-LAW WORLD 55, 76 n.2 (Bernard Schwartz ed., 1956) (quoting and analyzing Article 7 of the Law of the 30th of Ventôse, year XII (1804), which provided that as of its effective date all prior legal norms “shall cease to have the force and effect of general or particular laws with regard to the topics which are the object of... the present Code”).
transition issues with the fiction that the codes provided all answers for all problems within their scope.\textsuperscript{32}

The legal history of the United States (in imitation of its progenitor, the United Kingdom) initially followed a different course. Until early in the last century, the primary engine for progress in the law was the judiciary, and the primary vehicle for change came in the form of decisions rendered in individual disputes. Even early statutes—such as the Sherman Anti-Trust Act of 1890\textsuperscript{33}—most often signaled only a new direction for the law; control over the route, speed, and even ultimate destination of the legal journey remained with the courts.\textsuperscript{34}

The common law method substantially minimized the impact of legal transitions. In contrast to modern comprehensive legislative action, changes in the path of the common law occurred through gradual and episodic accretions to the existing body of judge-made norms.\textsuperscript{35} Even significant course changes often were carefully foreshadowed in earlier opinions.\textsuperscript{36} This process permitted the law—in the complimentary view of the leading scholars of the day at least\textsuperscript{37}—both to build on the experience of the past
and to accommodate innovations in human affairs. To paraphrase Benjamin Cardozo, the common law method permitted judge-lawmakers to “lay [their] own course of bricks on the secure foundation of the courses laid by others who had gone before [them].”

In the last century, however, the limitations of this incrementalist approach became increasingly evident as the growth of economic interdependence and shared social concerns increasingly required broader solutions. As a result, this country—as Guido Calabresi famously observed in 1982—is now firmly embedded in an “age of statutes.” This rise of legislative law in turn has led to a growth in both the breadth and detail of lawmaking projects. Our law thus is now characterized more by the intricacies of the Clean Water Act (and its implementing regulations) than by particularized developments in the common law of torts or property.

At the same time, increased activity at all levels has added complexity to the lawmaking process. State legislatures, for instance, now regularly adopt measures to displace or supplement the common law; state administrative bodies and municipal subunits often are empowered to do the same. Yet judicial lawmaking has continued to flourish, both in many areas of its traditional preeminence and in the interstices of statutory law.

general juridical truths, which are continually expanding with the progress of society, and adapting themselves to gradual changes of trade, and commerce, and the mechanic arts, and the exigencies and usages of the country”); O.W. Holmes, The Path of the Law, 10 HARV. L. REV. 457, 468 (1897) (comparing the common law to “the development of a plant, each generation taking the inevitable next step, mind, like matter, simply obeying a law of spontaneous growth” and concluding that “[i]t is perfectly natural and right that it should have been so”). But see Hathaway, supra note 27, at 605 (arguing that because of path dependence, “courts’ early resolutions of legal issues can become locked-in and resistant to change”).

43. Although there have been a number of targeted legislative initiatives (such as attempts to regulate products liability), the judiciary continues to have substantial control over the traditional common law fields of contract, torts, and property.
44. Legislative enactments in this country (with the noteworthy exception of Louisiana) have traditionally not aspired to the preemptive, comprehensive, and systematic nature of the civil codes common in Europe and South America. Instead, even comprehensive statutes typically have adhered to a perpetual index model of legislation. This approach adjusts and organizes the preexisting body of law, but nonetheless leaves substantial authority to the judiciary to fill gaps with common law principles and otherwise to develop the law within its scope. See Mark D. Rosen, What Has Happened to the Common Law?—Recent American Codifications, and Their Impact on
For its part, the U.S. Congress increasingly has arrogated authority to itself through an expanding field of federal legislative enactments; and national administrative agencies also have become active lawmakers on the basis of congressional delegations of rule-making authority.

Moreover, increasing cross-border interdependence has led to more substantial exercises of the treaty-making authority of Article II, Section 2 of the U.S. Constitution. These efforts, significantly, have included a new class of self-executing treaties, which have direct effect as law without implementing legislation (and thus without the involvement of the U.S. House of Representatives). The president also has sought and obtained enhanced authority to control the content of legislative enactments in international matters through congressional-executive agreements—as in the case of world trade agreements and NAFTA.


45. Most often, this expansion is founded on congressional exercises of authority under the Commerce Clause. In recent years, however, the Supreme Court has intervened with a new jurisprudence of limitation. See, e.g., United States v. Morrison, 529 U.S. 598 (2000); United States v. Loper, 514 U.S. 549 (1995); see also infra notes 88–91 and accompanying text (examining the transitional impact of such judicial decisions).

In contrast to the rise of legislative law on the national level, federal courts have experienced a severe constriction of their common law powers. See Atherton v. FDIC, 59 U.S. 213, 217–23 (1997) (canvassing Supreme Court precedent on federal common law and noting its limited scope); Milwaukee v. Illinois, 451 U.S. 304, 313 (1981) (observing that federal common law is limited to "few and restricted instances" (quoting Wheedlin v. Wheeler, 373 U.S. 647, 651 (1963))); see also SCALIA, supra note 24, at 13–14 (criticizing federal court lawmaking in our "age of legislation . . . where, with a qualification so small it does not bear mentioning, there is no such thing as common law").


Treaties reflect one of the rare instances of unicameral lawmaking under the Constitution. See U.S. CONST. art. II, § 2 (providing for legislative consent to treaties presented by the president solely by two-thirds vote of the Senate).

48. Under this procedure, Congress agrees to reject or accept through Article I implementing legislation, with limited debate and without amendment, an international agreement whose precise contours are left to executive negotiation. For examples of such authority, see 19 U.S.C. §§ 2112, 2191, 2902 (1994 & Supp. V 1999).

Paralleling these developments has been a proliferation of new lawmaking processes as well as of extralegislative institutions with formal or informal lawmaking powers. Perhaps the most prominent example of this modern phenomenon is the role of "private legislatures" in the drafting of the Uniform Commercial Code (UCC). Formal state legislative involvement in this process was limited to almost routine adoption of the code with only isolated and minor revisions. Similar processes abound. Consider, for example, the broader uniform law movement. Like the UCC and its recent revisions, responsibility for this area of the law in large measure has been delegated to independent drafting institutions. Myriad
independent bodies also have a formal role in the creation of law at the federal level, and some have practical lawmaker authority. Even the U.S. Supreme Court (through the Rules Enabling Act) has legislative-like powers with regard to issues of civil procedure and evidence.

On the international plane as well, private legislatures are actively involved in the drafting of law, in particular in the area of private law. These are supplemented by an array of formal international bodies (including...
ing the WTO,\textsuperscript{61} WIPO,\textsuperscript{62} the World Health Organization (WHO),\textsuperscript{63} and the International Labor Organization (ILO)\textsuperscript{64} with variegated powers to formulate, interpret, implement, and even create binding legal norms.\textsuperscript{65}

Taken alone, there is nothing inherently unsettling in these developments; increasingly complex human interaction will justify increasingly frequent and sophisticated adjustments in the law. This acceleration of law, however, has produced a legal system characterized by a complex web of interaction among competing lawmaking institutions and processes. Each change in the law—whether the creation of new norms or the revision of existing ones—now carries a transitional impact not only within its own realm, but also in a growing field of kindred regimes. For its part, the heightened production of potentially relevant law has only magnified the frequency and the significance of legal change in the modern lawmaking enterprise.

B. A Typology of Legal Transitions

The significance of legal transitions comes into sharper focus when we view the dynamics of change along a different axis.\textsuperscript{66} Independent of the more recent phenomenon of the acceleration of law is a more enduring jurisprudential debate about its proper province. At issue here is whether aggregate social welfare is better advanced by a preference for public regulation over private ordering, and if so, on what subjects, in what form, and

\begin{itemize}
  \item \textsuperscript{63} See Jay M. Vogelson, American Bar Association Section of International Law and Practice Standing Committee on World Order Under Law, Report to the House of Delegates, 30 INT’L LAW. 665, 687 (1996) (discussing the structure and competence of the WHO).
  \item \textsuperscript{64} See Jay M. Vogelson, American Bar Association Section of International Law and Practice, Report to the House of Delegates: International Labor Organization, 30 INT’L LAW. 653, 654–58 (1996) (analyzing the procedures and work of the ILO).
  \item \textsuperscript{65} The World Trade Organization, for instance, plays a significant role in creating law through the adjudication of trade disputes. As a practical matter, the growing body of jurisprudence by the Appellate Body of the WTO in the interpretation of the world trade agreements has created a common law of international trade. See Raj Bhala, The Myth About Stare Decisis and International Trade Law (Part One of a Trilogy), 14 AM. U. INT’L L. REV. 845 (1999) (describing the de facto development of binding common law by the WTO); Raj Bhala, The Precedent Setters: De Facto Stare Decisis in WTO Adjudication (Part Two of a Trilogy), 9 J. TRANSNAT’L L. & POL’Y 1 (1999) (same); McGinnis & Movsesian, supra note 61, at 512 (describing and endorsing the WTO’s adjudicative power but rejecting proposals to grant it regulatory authority).
  \item \textsuperscript{66} I thank Dean Joseph Tomain for his insightful thoughts on this typology of legal transitions.
\end{itemize}
to what extent. The answers to these questions are neither clear nor static. As a result, there is an enduring instability in the law, albeit in differing degrees at different times. A necessary step in understanding the effect of this instability—and thus the significance of legal change in general—is to recognize the variety of ways in which legal transitions occur in the modern regulatory state.

A common theme of much of modern legal scholarship has been that more traditionally private matters should be subject to public regulation. More recent debates, in contrast, have focused on whether social welfare would be better served by returning particular areas of the law to the control of private forces. And while these controversies tend to be the most heated, they do not tell the whole story. Much of the modern legislative agenda is devoted not to transfers from private to public control or the reverse, but rather to the propriety of change in areas already subject to comprehensive public regulation.

This suggests that legal transitions might be better understood if considered in two distinct dimensions. The first, "vertical" dimension involves the choice between public and private regulation. "Horizontal" transitions, on the other hand, occur when lawmakers either choose to reform a body of law already subject to public regulation or otherwise alter the legal

67. Distilled to an elemental proposition, public-regarding lawmakers face a choice between what might be viewed as active and passive forms of governance. In the active form, lawmakers pursue societal goals through familiar, positive laws (statutes, administrative regulations, and the like) adopted in accordance with prescribed procedures. For reasons that will become clearer below, these need not be mandatory; even so-called default rules pass as positive law in that they apply (that is, are binding) unless derogated from affected legal actors. See infra notes 103–109 and accompanying text. The passive form of governance, in contrast, might be described simply as the absence of the active one. Often operating under the broad label "private ordering," this category covers the wide swaths of human activity that are not subject to formal state mandates or other legal guidance. As I will explain in more detail below, this approach characterized most areas of the law in this country until the middle of the last century. See infra notes 73–74 and accompanying text.


69. For examples of recent scholarship in this vein, see Martha M. Ertman, Marriage as a Trade: Bridging the Private/Private Distinction, 36 HARV. C.R.-C.L. L. REV. 79 (2001), which argues for the application of a private contractual model to family law, and Alan R. Palmeter, Toward Disclosure Choice in Securities Offerings, 1999 COLUM. BUS. L. REV. 1, which argues for reduction of public regulation of certain disclosures in securities offerings.

70. See infra notes 73–82 and accompanying text (examining private-to-public legal transitions); infra notes 83–91 and accompanying text (examining public-to-private transitions).

71. See infra notes 92–102 and accompanying text (examining horizontal legal transitions).
environment in a manner that spurs private adjustment of private affairs. As the following brief examination of these dimensions will illustrate, legal transitions are frequent and substantial, and appear in a variety of often subtle forms.

1. Vertical Legal Transitions

   a. Private-to-Public: Regulation

   Among the most significant jurisprudential trends of the last century has been increasing public regulation of matters formerly left to private control. In a process that steadily gained momentum throughout the twentieth century, matters as diverse as labor relations, securities trading, racial and gender discrimination, consumer protection, and environmental rights were removed from the province of contract, tort, and property law and newly regulated by public legislation.

   The result in each of these and myriad similar cases is a vertical transition from private control to public regulation. Whereas, for example, employers used to be able to control the work environment and impede the efforts of employees to organize, a gradual regulatory process leading to the Occupational Safety and Health Act and the National Labor Relations Act imposed restrictions; whereas landowners used to be essentially free
to exploit their own property, the Clean Air Act\textsuperscript{78} and the Clean Water Act\textsuperscript{79} introduced significant limitations; and whereas the common law of contracts opened the way for landlords, employers, and owners of public accommodations to discriminate against minority groups, a variety of civil rights acts established new protections.\textsuperscript{80} These statutory provisions were then often supplemented by detailed administrative regulations.\textsuperscript{81}

Vertical conversions from private to public regulation also can occur in more subtle ways. Although diminished, judicial lawmaking remains an important engine of change in public law. This is so because some areas still within the common law are essentially public in nature. Consider as an illustration the creation of new common law crimes (a paradigmatic example of public lawmaking).\textsuperscript{82} Although accomplished by judicial action, these new requirements or prohibitions backed by the power of the state in effect reflect a transition from private control to public regulation.

b. Public-to-Private: Deregulation

The second form of vertical legal change can be seen as the opposite of the first. Transitions from public regulation to private ordering arise when lawmakers remove regulatory requirements or restrictions, and thus return an area of human affairs to private control.\textsuperscript{83} As such, this broad category might conveniently operate under the label deregulation; nonetheless, as I

\begin{itemize}
  \item Regulatory efforts at both the state and federal level. Not all aspects of the two acts thus reflected a complete transition from private to public regulation.
  \item In the common case in which administrative regulations add public law mandates on the basis of legislative delegations of authority to do so, they reflect an instance of vertical, private-to-public legal transitions. When, in contrast, they merely interpret the content of already existing legislative mandates, administrative regulations more resemble a horizontal transition within the public law realm.
  \item Even where formal positive law does not exist, cohesion in a field of human activity may be brought about by other, nonlegal social norms. See David Charny, Nonlegal Sanctions in Commercial Relationships, 104 HARV. L. REV. 373, 462 (1990) (discussing the variety of community and relational controls on contractual behavior); Robert E. Scott, Conflict and Cooperation in Long-Term Contracts, 75 CAL. L. REV. 2005 (1987) (analyzing the decisionmaking strategies of parties to long-term commercial contracts).
\end{itemize}
will describe below the phenomenon of the removal of public law mandates is broader than this familiar term might suggest.

The first and most common type of deregulation involves the elimination of statutory (and derivative administrative) controls by governmental action. Driven in large measure by the law and economics movement as well as by the insights of public choice theory, statutory deregulation rose to significance as a jurisprudential response to the perceived excesses of modern public law. The result in recent years has been a dismantling of regulatory oversight over broad sectors of commerce, including the telecommunications, transportation, banking, and (most recently and controversially) the electric power industries.

A second, less conspicuous form of deregulation arises when a court declares that a legislative body has exceeded its constitutional authority. The result of such a declaration is that an area previously subject to public regulation lapses to otherwise applicable sources, often private ordering. Long ignored in constitutional jurisprudence, the present Supreme Court


86. See David M. Lawrence, Private Exercise of Governmental Power, 61 IND. L.J. 647, 647 (1986) ("Privatization—turning formerly governmental responsibilities over to the private sector—has become a popular idea in recent years. Its proponents promise greater efficiency, lower costs, and the avoidance of legal entanglements unique to government."); Merrill, supra note 74, at 961–62 (noting the deregulation of a number of industries, which began during the Jimmy Carter and the Ronald Reagan administrations, and describing the influence of public choice theory on the deregulation movement).

87. Consider as a topical case study the deregulation of the electric power generation and distribution industry in California. Whatever the desired long-term benefits of this effort, the mere transition from the stability of an established regulatory framework to the relative uncertainty of private market forces has produced significant short-term distortions. These have been exacerbated by the particular manner in which lawmakers structured the substantive rules governing the deregulation. See Peter Coy & Christopher Palmeri, Financial Post Editorial: Deregulating Power, the Wrong Way, NAT'L POST, Aug. 23, 2000, at C15 (describing criticisms of the deregulation process); Holman W. Jenkins Jr., How California Turned out the Lights, WALL ST. J., Aug. 30, 2000, at A27 (same).

88. For a prolonged period (from the end of the Lochner era until quite recently), the possibility of substantive limits on Congress's Commerce Clause power was viewed as little more than theoretical. See Richard A. Epstein, The Proper Scope of the Commerce Power, 73 VA. L. REV. 1387 (1987) (discussing the long period in which the Supreme Court had not invalidated a congressional statute on the basis of the Commerce Clause); see also Bruce Ackerman, Revolution on a Human Scale, 108 YALE L.J. 2279 (1999) (discussing the change of constitutional jurisprudence
has reinvigorated the debate over this “judicial deregulation” with a more aggressive interpretation of the Commerce Clause, as well as of the doctrine of state sovereign immunity. It has already invalidated a number of social and economic federal statutes on this basis, and in the process also called into question a whole range of others.

2. Horizontal Legal Transitions

Notwithstanding recent efforts toward deregulation, changes in the law in the modern regulatory state predominantly occur in areas already subject to public control. In its most prosaic manifestation, regulatory reform involves the revision or replacement of an existing legal norm by the lawmaking institution that created it. One might term this *intra-institutional* legal reform. Examples of this form of legal transition abound. It occurs whenever Congress amends an existing statutory scheme, in particular one that entirely preempts the regulated field, or when a federal administrative
body revises an existing rule. Intra-institutional reform likewise describes the frequent transitions at the state level when a legislature or administrative agency amends an existing body of public law within its field of authority.

Recent years have also witnessed the rise of more complicated forms of horizontal legal transitions. The first step in this direction was the creation in the last century of administrative bodies conceived of as legislative agents with the authority to fill in statutory details. Also in this category are the more novel forms of lawmaking explored above, such as the increased use of the treaty-making power as an alternative to formal legislation, of extralegislative entities to assist in the formulation of new legal norms, and of a variety of private bodies to develop transjurisdictional law on behalf of public legislatures.

Interinstitutional regulatory reform results from an arrogation of authority by a lawmaking institution in an area already subject to regulation by a subordinate one. Examples of this type of public-to-public transition span the spectrum of hierarchical relationships in our constitutional system. The


95. One could scarcely capture in a footnote even a representative sample of recent changes to state public laws. For two particularly controversial recent state legislative enactments, see H. 1705, 112th Gen. Assemb., 1st Reg. Sess. (Ind. 2001), which regulated consumer credit in Indiana, and H.R. 350, 121st Gen. Assemb., Reg. Sess. (Ohio 1995), which comprehensively reworked Ohio's civil code regarding tort and other civil actions, but was declared unconstitutional in State ex rel. Ohio Academy of Trial Lawyers v. Sheward, 715 N.E.2d 1062 (Ohio 1999).

96. See supra notes 47–65 and accompanying text (describing the variety of recent novel and hybrid forms of lawmaking).


98. See supra notes 47–65 and accompanying text.

99. Horizontal cooperation among formally sovereign entities in the creation of transjurisdictional uniform law also reflects a form of intra-institutional transition, although through a shift to a higher level of social organization. This may or may not involve some form of a vertical integration through a formal institution (such as an administrative or consultative body) with authority to promulgate draft legislation. See Joel P. Trachtman, International Regulatory Competition, Externalization, and Jurisdiction, 34 HARV. INT'L L.J. 47, 49 (1993) (observing that international regulatory cooperation “constrains horizontal competition and is equivalent to a move up the scale of social organization to institutionalization (or regulation) at a higher level of social organization”).

100. The reverse process may also reflect an instance of inter-institutional legal transition. That is, when a superior institution removes legal mandates in favor of regulation by, for instance, institutions geographically closer to the governed—a process that when undertaken on a broad scale is often referred to as devolution—the result is a transition from one form of public regulation to another.
most familiar pattern is the preemption of state public law by new federal legislation on the basis of the Supremacy Clause. A similar, though now less common, phenomenon occurs when a legislature acts to supersede an existing framework of common law norms in an area that was itself public law in nature.

3. State-Induced Private Adjustment

The effect of changes in the law would not seem to be a matter of serious concern for legal regimes that are not mandatory in character. Because much of contract law, commercial law, and similar fields merely define the default rules of exchange, for instance, they remain subject to disposition by party agreement. As a result, it is appealing to assume that changes in this *jus dispositivum* (at least those not retroactive in application) impose no immediate adjustment costs on transactors. If they are not content with a new rule, they are free simply to contract around it.

This overlooks the benefits of a well-developed body of background law. It is now well recognized that it simply is impractical or too costly for transactors to craft all aspects of their relationship from scratch. Even for purely consensual relations, therefore, the state can serve a valuable function by supplying a stable set of cost-free default rules to operate in the background of party agreements. As familiarity grows over time, this default legal framework then can free transactors of the need to dicker over uncontroversial details, enable them to focus their negotiations on matters

101. U.S. CONST. art. VI. The Supremacy Clause also grants preemptive effect to treaties adopted in accordance with Article II, Section 2. The U.S. Senate ratification of a treaty designed to be self-executing, therefore, will also result in a hierarchical legal transition to the extent state law is in conflict. See also supra note 47 and accompanying text (describing the operation of self-executing treaties).

102. Examples of this type of regulatory reform include the replacement of common law evidentiary rules by the *Federal Rules of Evidence* (or, for that matter, state rules of evidence) and replacement of judge-made criminal law in those states that have adopted criminal codes.


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particular to their transaction, and reduce the risks of private formulation error. 105

Because of the importance such a framework assumes over time, a state
decision to alter even a background legal regime may induce a form of
private-to-private transition. 106 That is, not unlike new mandatory law, a
modification of default rules of exchange will require that private transactors
review and restructure their affairs to respond to the new opportunities and
obstacles. The particular form of sanction for noncompliance may be
different (state-enforced criminal or civil liability versus private loss), 107
but parallel adjustment incentives will mean that a change in default legal
rules can carry a transitional impact much in the same manner as the public
law transitions just discussed. 108 This is all the more true in our age of

105. See Charles J. Goetz & Robert E. Scott, The Limits of Expanded Choice: An Analysis of the
Interactions Between Express and Implied Contract Terms, 73 CAL. L. REV. 261, 262 (1985)
describing the “Expanded Choice postulate” that state supplied background rules “expand
contractors’ choices by providing standardized and widely suitable ‘preformulations,’ thus eliminating
the cost of negotiating every detail of the proposed arrangement”); id. at 263 (emphasizing “the
value of [state-supplied] implied terms as widely useful, predefined signals that reduce the inci-
dence of certain identifiable types of [private] formulation errors”); see also EASTERTROOK &
FISCHEL, supra note 104, at 34 (noting that “[c]orporate codes and existing judicial decisions
supply [default] terms ‘for free’ to every corporation, enabling ventures to concentrate on matters
that are specific to their undertaking”).

106. In theory, transactors may be able to avoid some of the adjustment cost for new default
rules by a wholesale choice of the law of a jurisdiction that has not adopted the proposed change.
A variety of complications undermine the attractiveness of this option. First, states maintain
a monopoly on the validity of choice of law clauses, as well on the invocations necessary for their
recognition. Moreover, even when permissible, a private choice of law requires party agreement.
In absence of express negotiation, therefore, a transactor cannot be assured that any particular
standardized choice of law clause will be operative. Finally, when—such as for the UCC in the
United States—all relevant jurisdictions have cooperated in creating uniform law, the choice of
law option is effectively meaningless. See U.C.C. § 1-105 (1999) (validating a party choice of law
only if the jurisdiction chosen bears a “reasonable relation” to the transaction at issue). For more
detail on the role of “exit” in assessing the impact of legal change, see infra notes 393–396 and
accompanying text.

107. State action also can induce substantial private-to-private transitions through litigation
as a result of the remedy sought for legal violations. Consider the AT&T antitrust case. The state
in that case sought to dismantle an existing system of private ordering operating in the form of a
large corporate enterprise. Upon a finding of an antitrust violation, and a subsequent consent
decree, the result was in effect state-mandated “private deregulation.” See United States v.
U.S. 1001 (1983). Legislative guidance on how that was to be accomplished did not come for
over a decade, which itself involved a form of vertical legal transition. See Telecommunications

108. See supra notes 73–102 and accompanying text (discussing private legal transitions that
arise from a change in a default legal regime).
comprehensive prescription of default rules through legislative action (witness the Uniform Commercial Code).\textsuperscript{109}

With this foundation, I can now state concisely the premise of the analysis to follow: Our increasingly fragmented and complicated political-legal environment has spawned an increase in the breadth, complexity, and velocity of legal transitions. What has been overlooked in this acceleration of law is the derivative increase in the friction associated with change itself.\textsuperscript{110} Whether beneficiaries or targets, legal actors—and in the aggregate the legal system as a whole—will incur costs simply in accommodating new legal norms. These costs of simple adjustment will arise, significantly, whatever substantive policy goals the norms pursue and however well they are crafted to achieve those ends.

Part II examines these legal transition costs in detail. To set the context for that analysis, I first turn to a brief discussion of why certainty and stability is of value for legal actors in the first place. Through this review of the force of established law we will set a foundation for a deeper understanding of the costs of undisciplined change, and thus of the benefits of mitigating transitional friction before it arises.\textsuperscript{111}

C. The Value of Legal Certainty

It is one of the requirements of a just legal system that lawmakers reasonably communicate the content of the law to the governed. As the Supreme Court often has emphasized, a legal norm so unclear in its substance that citizens "of common intelligence must necessarily guess at its meaning and differ as to its application, violates the first essential of due process of law."\textsuperscript{112}

\textsuperscript{109.} As noted above, the Uniform Commercial Code in recent years itself has been subject to a comprehensive round of revisions. See supra note 52 and accompanying text.

\textsuperscript{110.} Although the literature is limited, some scholars have touched on the notion of legal transition costs (most often with reference to the doctrine of stare decisis), but without a comprehensive analysis of the phenomenon. See Lawrence E. Blume & Daniel L. Rubinfeld, The Dynamics of the Legal Process, 11 J. LEGAL STUD. 405, 408–10 (1982) (noting a departure from precedent involves transition costs); Lee, supra note 27, at 652 (observing that the overruling of precedent by the Supreme Court imposes adjustment costs); see also Clayton P. Gillette, Lock-in Effects in Law and Norms, 78 B.U. L. REV. 813, 821 (1998) (noting that the relative merit of an existing legal norm must involve consideration of the transition costs of adopting a new one); cf. Gregory E. Maggs, Reducing the Costs of Statutory Ambiguity: Alternative Approaches and the Federal Courts Study Committee, 29 HARV. J. ON LEGIS. 123, 127 (1992) (analyzing the costs of statutory ambiguity).

\textsuperscript{111.} See infra Parts III.B–C (analyzing the available means of mitigating legal transitions and the role of mediating institutions in ameliorating the impact of legal change).

Avoidance of uncertainty in the articulation of legal mandates is not only a matter of minimal justice. Prudential considerations also suggest that clarity in the meaning and effect of law provides affirmative benefits to individual legal actors, and thus in the aggregate to society in general. Some degree of legal certainty in fact is essential to the very functioning of a capitalist system. Indeed, certainty may have value even apart from the substance of the particular legal norm at issue. "In most matters," as Justice Louis Brandeis famously observed, "it is more important that the applicable rule of law be settled than it be settled right."

Clear and stable legal norms provide benefits to legal actors in a variety of ways. First, they promote efficient decisionmaking by affected firms and individuals in the arrangement of their affairs. Bolstered by judicial adherence to precedent, settled rules of law provide the framework for less costly, more accurate, and thus more effective planning for future activity. In consensual transactions, the predictability enhanced by established law enables more efficient drafting of contracts and other interparty legal documents intended for future, especially multiple or repeat, use.

(1964) (noting "the requirement of the Due Process Clause that a criminal statute give fair warning of the conduct which it prohibits").

113. This insight was one of the significant contributions of Max Weber. See 2 MAX WEBER, ECONOMY AND SOCIETY 883 (Guenter Roth & Claus Wittich eds., 1968); see also Anthony D'Amato, Legal Uncertainty, 71 CAL. L. REV. 1, 5 n.11, 8 (1983) (citing Weber and discussing the importance of legal certainty for the rule of law).


115. A focus on legal certainty does not mean that narrow rules always should be preferred over flexible standards. Some important equitable values of their nature are not susceptible to precise articulation for all factual scenarios within their scope. Moreover, as I explain below, when insufficient information is available about the regulated activity flexible standards may be the preferred normative model. See infra notes 387-392 and accompanying text.

116. For an introduction to the voluminous debates over the proper role of the doctrine of stare decisis, see supra note 27. See also infra notes 400-407 and accompanying text (examining the doctrine within the framework of transition cost analysis).

117. See KARL N. LLEWELLYN, THE CASE LAW SYSTEM IN AMERICA (Paul Gewirtz ed., Michael Ansaldi trans., 1989), reprinted in 88 COLUM. L. REV. 989 (1988) (discussing from a comparative perspective the work of Karl Llewellyn, including his views on the value of legal certainty); Easterbrook, supra note 27, at 430 (asserting that certainty through adherence to precedent enables both political and private actors to plan more efficiently "against the background of known rules"); Lee, supra note 27, at 651 (observing that the certainty provided by the doctrine of stare decisis "enables more efficient planning"); Jonathan R. Macey, The Internal and External Costs and Benefits of Stare Decisis, 65 CHI.-KENT L. REV. 93, 107 (1989) (arguing that legal certainty, as supported by adherence to precedent, "permit[s] better planning by legal actors").

118. See Kahan & Klausner, supra note 15, at 719-20 (arguing that established background law promotes "drafting efficiency" in the preparation of standardized forms); Robert E. Scott, The Case for Formalism in Relational Contract, 94 NW. U. L. REV. 847, 854 (2000) (suggesting that formal adherence to established rules promotes stability and facilitates the creation of "standardized terms that parties can use thereafter in signaling their intentions").
Legal certainty also can lead to a progressive decrease in the costs associated with obtaining professional advice. Familiarity with settled legal norms in a particular field gradually enlarges the pool of practitioners with the expertise to offer advice, as well as the depth and accuracy of that expertise. The resultant increase in competition leads to higher quality legal and other professional advice. The net effect is less costly and more efficient expert guidance as private actors plan for and execute legal transactions.\(^{119}\)

Familiarity with an established body of law among legal actors themselves likewise may lead to a reduction of transaction costs through strengthened bonds of interfirm trust.\(^{120}\) Not unlike the function of rules of grammar, a settled legal regime provides a framework for efficient communication between transactors. This in turn decreases the costs and risks in the initial negotiation and later performance of consensual transactions.\(^{121}\) Derivatively, the certainty provided by a settled body of law leads to a reduction in dispute resolution costs, both by narrowing the universe of potential controversies and by facilitating settlement when controversies do arise.\(^{122}\)

A related, if more subtle, benefit flows from the effect legal certainty has on the development of private forms and practices. Clarity and stability in positive legal norms can set the foundation for establishment of private conventions in the interstices of the law. For individual firms, legal cer-

\(^{119}\). See Kahan & Klausner, supra note 15, at 726 (arguing that the use of established standardized terms results in efficiency gains from “higher quality and lower cost legal and professional services in the future, as lawyers and accountants gain (and retain) expertise by encountering questions or disputes regarding a particular contract term”).


\(^{121}\). See Kahan & Klausner, supra note 15, at 727 (describing the efficiency benefits that flow from transactor familiarity with established standardized terms). Charles Goetz and Robert Scott have observed a similar phenomenon in the use of conventional “preformulated” contract terms. See Goetz & Scott, supra note 105, at 287 (arguing that as such terms become established through repeated judicial interpretation, they fulfill a “labeling” function by “provid[ing] a uniform, and therefore intelligible, system of communication”).

\(^{122}\). The proposition that certainty in the law decreases dispute resolution costs is a well-accepted one. See, e.g., Ehrlich & Posner, supra note 35, at 265 (arguing that “[a]n increase in the predictability of the outcome of litigation should result in an increase in the settlement rate . . . [and] reduce the total costs of legal dispute resolution”); Lee, supra note 27, at 643 (arguing that judicial adherence to established doctrine decreases the costs associated with litigation). For more on this point, see infra notes 175-194 and accompanying text.
Certainty encourages investment in cost-saving administrative practices, such as in the form of intrafirm standardization.123 Similarly, predictability can speed the development of efficient interfirm conventions. These operate to fine-tune rights and obligations only incompletely or imperfectly defined in the positive law. This benefit of certainty is captured in the notion that an established legal regime can facilitate the creation of networks of private contractual formulations for issues left unresolved in the regime's express provisions.124

Certainty in the law, like elsewhere in human affairs, is a relative concept. In its purest form it likely does not exist at all.125 And some equitable values may not be susceptible to precise articulation in any event. But the longer a given body of law remains in force—and especially the more it is subject to judicial interpretation and is applied in diverse factual circumstances126—the greater the benefits of certainty and predictability it may offer to legal actors in the arrangement of their affairs.127

These considerations alone suggest that a loss of the certainty that has developed in a given body of law over time may result in significant costs. As we shall discuss in more detail below, the costs involved in accumulating a storehouse of interpretive precedent128 as well as in developing familiarity among legal professionals and transactors129 may become wasted investments upon the repeal or replacement of an established legal regime. But we shall also discover that the costs of legal transitions are deeper and more profound than the loss of certainty in this narrow sense. A fuller understanding requires an analysis not only of the loss of accumulated legal certainty, but also of the new burdens imposed, when an established legal norm is replaced with a new and untested one.

123. For a more detailed review of the benefits of standardization, see infra notes 250–253 and accompanying text.
124. See Kahan & Klausner, supra note 15, at 763–64 (discussing the role of the law in facilitating the creation of private networks of standardized contractual terms); Klausner, supra note 15, at 837 (observing that "[l]egislatures, in enacting corporate law, and courts, in deciding corporate law cases, in effect serve as standard-setters and hence as facilitators of contractual networks"). For a detailed examination of the legal transition costs associated with the loss of established networks of contracts, see infra notes 274–294 and accompanying text.
125. As Oliver Wendell Holmes observed, "the logical method and form flatter that longing for certainty and for repose which is in every human mind. But certainty generally is illusion, and repose is not the destiny of man." Holmes, supra note 37, at 466
126. This is a well-recognized benefit of judicial interpretation. See Klausner, supra note 15, at 777 ("The benefit of judicial interpretation lies in the reduction of uncertainty."). For more on this point, see infra notes 175–178 and accompanying text.
127. For a more detailed examination of this process of progressively enhancing the certainty in a body of law, see infra notes 175–194 and accompanying text.
128. See infra notes 195–198 and accompanying text.
129. See infra notes 140–155 and accompanying text.
II. THE COSTS OF TRANSITION BETWEEN LEGAL REGIMES

In almost any form of social organization, a decision to alter or replace a norm of guidance or control will involve some level of transitional friction. As one moves up the scale from small and homogeneous private groupings to broad governmental regulation of a diverse polity, the extent and complexity of this friction is only likely to increase. The next step in appreciating the significance of this phenomenon is to examine in detail the distinct sources and types of costs that arise from such a transition in state-created legal regimes.

A. Learning Costs

Much as lawmakers may deny it, and the public may decry it, crafting legal norms to address the complexity and variability of human affairs is a difficult and complicated enterprise. An increasingly sophisticated modern polity, as well as a heightened diversity both among lawmakers and the governed, has necessitated increasingly sophisticated legal accommodation. A consequence is that the law itself is increasingly specialized, detailed, and complex. This fact has become so ingrained in our collective consciousness that one need hardly examine the Internal Revenue Code (with attendant regulations), the Bankruptcy Code

130. The desire of lawmakers to distill the law into simple, easily digestible propositions is a long-standing one. See JOHN HENRY MERRYMAN, THE CIVIL LAW TRADITION 39–40 (2d ed. 1985) (noting the efforts of Frederick the Great of Prussia in the early 1800s to prescribe the resolution for all conceivable factual disputes in the form of a civil code containing in excess of 17,000, supposedly uncomplicated, provisions); Paul Edward Geller, Staffing the Judiciary and "Tastes" in Justice: A Commentary on the Papers by Professors Bell and Clark, 61 S. CAL. L. REV. 1849, 1859 (1988) (observing that "[o]ne purpose of the French Civil Code [of 1804] was to establish a universal handbook of general rights and duties from which any reasoning layperson could draw directives for action in particular cases").

131. See, e.g., Mike Archer, Plain English Puts People in Charge, ORLANDO SENTINEL, Mar. 11, 2001, Lake Sentinel section, at 1 ("[Average citizens] get knocked to their knees by a barrage of complicated legal language.... As residents, they should be able to participate in decisions that affect their lives. The law confirms that right. But for the average person, the language barrier effectively prevents it."); Mae M. Cheng, Immigration Q & A: Can In-Laws Get Their Visas Extended?, NEWSDAY, Nov. 10, 2000, at G2 (noting that because of the complexity in "immigration and welfare laws, it is very difficult for the average person to figure out the benefits for which they are eligible"); John D. McKinnon, For Taxpayers, Life Just Got Much More Complex, WALL ST. J., June 1, 2001, at A2 (noting that complexity in the recent changes to the tax code "will generate huge headaches for tens of millions of taxpayers" and quoting an e-mail to an ABA internet site to the effect that "[t]he administrative burden on families will be daunting").

133. See 26 C.F.R. § 1.01 (2000).
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(with attendant rules\textsuperscript{135}), or the various federal securities acts\textsuperscript{136} (with implementing regulations\textsuperscript{137}) to illustrate the point. And, unfortunately, complexity often travels with the unwanted companions of formulation error, vagueness and ambiguity, unintended gaps in coverage, and the principle of unforeseen consequences.\textsuperscript{138}

The law, in short, must be learned, and the process of doing so involves costs. Firms and individuals must determine what laws are relevant to their activities; they must assess the scope and effect of the applicable ones; and they must master the complexities of the more detailed or technical provisions. Most often, lay actors do not incur these learning costs through first-hand investigation. Instead, it is typically more efficient for them to purchase legal knowledge from professionals with specialized education and expertise in the fields of law relevant to their affairs.\textsuperscript{139} Not all actors, of course, purchase knowledge from specialized professionals in the planning of legal transactions. Some consciously choose to run the risks of misinformation rather than incur the learning costs required for mastery of the law.\textsuperscript{140} Others will lack the resources or experience to seek out professional legal advice in advance of their legally relevant conduct. This only means, however, that the learning costs are borne at the point of legal sanction, rather than in advance of (or in avoidance of) such a consequence.

Not all legal learning costs, however, are borne directly by regulated firms and individuals. A variety of public and private institutions contribute in various ways to the accumulation of knowledge about the law. The public court system, for instance, subsidizes the learning of the law by society at large through judicial opinions on the resolution of legal disputes.\textsuperscript{141} This is particularly true in countries such as the United States that follow

\textsuperscript{138} For a more detailed examination of the errors that may accompany the formulation of legal norms, see infra notes 297–302 and accompanying text.
\textsuperscript{139} See Kahan & Klausner, supra note 15, at 723 n.24 (noting the efficiencies from purchasing legal and other professional advice that may arise from "economies of scale and scope and from movement along the learning curve"); see also Klausner, supra note 15, at 783–84 (examining the same contention).
\textsuperscript{140} Cf. Kaplow, supra note 26, at 572–76 (discussing the significance of private decisions not to become informed about the law regarding the choice between rules and standards). To the extent that new legal mandates increase learning costs, they likely also will add to the number of legal actors that choose to run the risk of being misinformed about the law. See infra notes 324–329 and accompanying text (discussing such "ignorance costs").
\textsuperscript{141} For more on this role of courts as "mediating institutions," see infra notes 408–410 and accompanying text.
the common law tradition of detailed and reasoned judicial opinions. Indeed, by elaborating on and adding coherence to the law in this way, court opinions in effect create public goods, accessible to all and exhaustible by none.

Legal scholars perform a similar function. The production of law review articles, treatises, and other legal literature creates a ready base of knowledge for consumption by legal practitioners and other professionals. Public interest institutions (such as legal clinics) also serve as a source of knowledge for those segments of society that are unable to bear legal learning costs on their own. Legal professionals can also provide efficiencies in learning the law; for as they become familiar with a particular legal regime, the per transaction cost of researching and communicating its content to subsequent clients decreases.

As a result, the learning costs for a given body of law are likely to decrease over time. The longer the law remains in effect, the greater the opportunity for interpretive court opinions and scholarly analysis. Familiarity among legal professionals likewise lessens risks and thus reduces costs.

142. See Michael Wells, French and American Judicial Opinions, 19 YALE J. INT'L L. 81, 109 (1994) (observing that the "disparity between the typical French opinion and the American model is worthy of attention, because American theorists regard the reasoned opinion as crucial to the success of the whole legal system").

143. The key attributes of public goods are that they are "nonexcludable," which means that one user cannot exclude use by others, and "nonrivalrous," which means that one person's consumption of the good does not diminish its availability for use by others. Robert G. Bone, A New Look at Trade Secret Law: Doctrine in Search of Justification, 86 CAL. L. REV. 241, 262 n.96 (1998) (describing these two characteristics of public goods); see Clarisa Long, Patents and Cumulative Innovation, 2 WASH. U. J.L. & POL'Y 229, 231 (2000) (same).

144. Through their support of legal education and scholarly output by faculty members, public law schools also internalize some of the costs of learning the law. Similarly, law students, even those at private law schools, in effect subsidize the dissemination of knowledge about the law through their paid tuition and fees.

145. The prevalence and efficiency of modern means of communication (including television, the Internet, and so on) also assist in the dissemination of knowledge about the law, in particular for those otherwise unwilling or unable to seek out professional legal advice.

146. See Kahan & Klausner, supra note 15, at 723 (observing that one of the "learning benefits" of a standardized contract term is that its use "may reduce the costs and improve the quality of [professional] advice because many [legal] professionals will be familiar with the term from past experience"); Kaplow, supra note 26, at 574 n.40 (observing that legal advice costs may decrease over time as lawyers and law firms gain familiarity with a given issue).

147. This is not to say that any particular existing legal norm necessarily will be more valuable as compared to all alternatives. Another substantive solution may offer greater net societal benefits, in particular if the existing norm has become ossified in light of social or technological change. See infra notes 369-374 and accompanying text (discussing in more detail the role of legal transition costs in evaluating proposed changes in the law). The simple message here is that as knowledge of an established legal norm accumulates, the costs associated with learning its content will decrease.
through improved quality of advice. In addition, interaction among practitioners in the same and related fields leads to a dispersion of the collective learning benefits among all participants in a legal community. The body of knowledge and experience so accumulated over time functions to decrease the learning costs of the law for covered firms and individuals.

The introduction of a new body of legal norms, therefore, will impose a new round of learning costs. Whether in the form of a statute, administrative regulation, or judicial opinion, a new rule of law must be identified, analyzed, and digested. The extent of these new learning costs also is likely to increase in direct relation to the ambition, novelty, and complexity of the reform project. An incrementally new common law rule, for example, likely will impose lower learning costs than a comprehensive legislative product.

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148. A similar phenomenon occurs even without the involvement of legal professionals. General (if sometimes imperfect) knowledge of the law can be expected to diffuse throughout society through the informal interaction of affected individuals. For example, a lay employee need not wade into the details of the Employee Retirement Income Security Act (ERISA) in order to learn from experience and communication with colleagues that plan administrators owe some generalized duty of fairness in plan decisions. See 29 U.S.C. § 1104(a)(1) (1994) (providing that administrators must discharge their duties with respect to a plan "solely in the interest of the participants and beneficiaries").

149. See Kahan & Klausner, supra note 15, at 738-40 (examining how the interaction of law firms and other professionals disperses the accumulated learning benefits on commonly used contractual terms); see also id. at 719-25 (discussing the "learning benefits" that arise from the use of widely accepted standardized contract terms); Steven Walt, Novelty and the Risks of Uniform Sales Law, 39 VA. J. INT'L L. 671, 692-93 (1999) (describing the learning benefits that flow from prior experience with and information about the law). For a discussion of the related notion that the accumulation of judicial precedent on open-ended legal standards can decrease the uncertainty costs, see infra notes 225-231 and accompanying text.

150. As I have noted, one of the means by which legal learning is disseminated is through court opinions on private disputes. See supra notes 141-143 and accompanying text. Nonetheless, there may be insufficient incentives for the production of these public goods. Notwithstanding the societal learning benefits, public litigation to resolve uncertainties may reflect a positive externality for the participants. That is, the legal system requires the parties to bear their own litigation costs, but does not permit them to internalize the resulting learning benefits. As a consequence, the existing system may create insufficient incentives for an optimal amount of judicial precedent on newly created legal norms. See Walt, supra note 149, at 692-703 (discussing this point in terms of a "learning externality").

151. Cf. Lee, supra note 27, at 657 (noting with regard to the Supreme Court that "when the Court abandons one of its decisions, private and public actors will be forced to incur additional costs in response to the replacement precedent").

152. Indeed, even those not directly affected may incur legal and other learning costs from investigating the scope and effect of new laws. That is, firms and individuals will incur legal and other professional service costs simply in determining that a new legal norm does not affect their affairs.

153. As we have seen, however, this is also the trend of lawmaking in this country. Recall that recent decades have witnessed a progressive eclipsing of the common law approach in favor of
These legal learning costs in fact will arise at each of several levels of a learning chain. A first order exists at the level of legal professionals: judges, law professors, and, most significant, legal practitioners. These professionals must master the provisions of the new law, resolve questions of scope and limitation, and unravel issues of meaning and effect. These activities involve costs, not only in direct economic terms, but also in the form of investments of time and foregone opportunities.\textsuperscript{154} As commercial enterprises, law firms ultimately pass along much of these learning costs to affected legal actors in the form of increased service fees.\textsuperscript{155}

Indeed, professional learning costs will arise even if the new body of law merely builds upon or extensively borrows from the regime it replaces. Consider the revision of Article 9 of the Uniform Commercial Code.\textsuperscript{156} Although it has introduced a number of innovations, the revised article is substantially based on the core principles of its predecessor.\textsuperscript{157} It nevertheless contains a number of significant substantive innovations, as well as technical challenges such as a reworked numbering system.\textsuperscript{158} The simple lack of familiarity with the content of this new body of law, and in particular with the extent of its novelty, will impose learning costs on legal profes-

\textsuperscript{154} As noted above, in most cases learning costs ultimately are borne by those who seek advice from legal practitioners. See supra note 139 and accompanying text. Nonetheless, in some cases these costs of new legal norms in part may be internalized by law firms and other professionals for commercial reasons. For instance, law firms—in particular large ones whose economies of scale permit continuous and comprehensive monitoring—may produce complimentary summaries of new developments in the law in order to attract new clients and retain existing ones.

\textsuperscript{155} At some level, the interests of lawyers in this regard may be contrary to those of society at large. To the extent that new law imposes additional learning costs, including through the need for increased professional services, it will benefit the economic interests of lawyers. See also Kaplow, supra note 26, at 620 (observing that "[s]ince some of the promulgation costs [of law] and much of the costs of advice and enforcement consist of fees for lawyers' services, the profession as a whole has a general interest that tends to oppose that of society").

\textsuperscript{156} Nearly all of the states have now adopted revised UCC Article 9, which governs the creation, perfection, and priorities among security interests in personal property. For most, though not all, of the states, the revised article entered into effect on July 1, 2001. See U.C.C. \textsection 9-701 (2000).

\textsuperscript{157} See Steven L. Harris & Charles W. Mooney, Jr., Filing and Enforcement Under Revised Article 9, 54 BUS. LAW. 1965, 1966 (1999) (setting forth the observation of the reporters for revised Article 9 that "[t]he two Articles follow the same general approach to providing a comprehensive scheme for the regulation of security interests in personal property and fixtures").

\textsuperscript{158} See Michael W. Dunagan, Vehicle Repossessions and Resales Under Revised U.C.C. Article 9: The Requirements and the Consequences of Non-Compliance, 54 CONSUMER FIN. L.Q. REP. 192, 193 (2000) (observing that "[s]ome of the most significant differences between the old and revised Article 9 involve changes in the statutory format, such as a new numbering system").
sionals in the field of secured financing.\textsuperscript{159} This is true even though one of the purported purposes of revised Article 9 was to clarify and simplify the law.\textsuperscript{160}

A second order of learning costs arises from the process of educating affected legal actors (especially repeat players\textsuperscript{161}) about the impact of the new law on their specific operations and activities. It is at this level that the bulk of the practical learning of the law is accomplished. Even when firms purchase knowledge from specialized professionals, the specifics of the law must be fleshed out and given practical meaning, the law's complexities must be distilled into a digestible form, and its application to actual transactions and disputes must be clarified. To carry forward the revised Article 9 example, the necessity of educating secured lenders about how the new law affects their specific operations will create a separate layer of learning costs.\textsuperscript{162}

Finally, the knowledge acquired by a firm about a change in the law must be translated for consumption and implementation by its lay employees—a third order of learning costs. Without effective education procedures for employees, a firm's initial learning about the law means little. To carry that knowledge into effect, firm agents "on the ground" must internalize the new requirements of the law. In a similar way, employees must develop sufficient practical knowledge about new legal mandates in order to understand and adhere to new or updated firm compliance regimes.\textsuperscript{163} One need only cite experience with antidiscrimination law to

\textsuperscript{159} Revised Article 9 has already spawned many seminars and law review symposia as well as innumerable articles, books, and other legal works. See, e.g., Barkley Clark, Revised Article 9 of the UCC: Scope, Perfection, Priorities, and Default, 4 N.C. BANKING INST. 129 (2000); Edwin E. Smith, Overview of Revised Article 9, 73 AM. BANKR. L.J. 1 (1999); Symposium on Revised UCC Article 9, 74 CHI.-KENT L. REV. 857 (1999).


\textsuperscript{161} The learning costs associated with legal change will be of particular concern for long-term participants in the affected field. For one-shot or very infrequent players (say, a new business in need of a start-up loan) a change in the law is unlikely to impose new learning costs. In contrast, a repeat player with established policies and procedures will incur a new round of learning costs with each change in the law. Nonetheless, certain changes in the law will advantage active repeat players to the extent they are able to spread private adjustment costs over a greater number of transactions. See infra note 267 and accompanying text (discussing private adjustment costs for frequent participants in a given activity).

\textsuperscript{162} For an analysis of the technical transition rules of revised Article 9, see Caroline N. Brown, U.C.C. Revised Article 9: The Transition Rules, 79 N.C. L. REV. 993 (2001). See also infra notes 357–358 and accompanying text (noting the typically narrow focus of such transition rules).

\textsuperscript{163} Some laws in fact require that firms develop monitoring and record-keeping systems to ensure that their employees comply with their substantive legal mandates. Alternatively, under
illustrate this point. The continuing violations of the law in this field in part can be attributed to the failure of affected actors effectively to incur this significant, third stage of learning costs for recent legal developments.\footnote{164. See, e.g., Romano v. U-Haul Int'l, 233 F.3d 655, 670 (1st Cir. 2000) (affirming a punitive damages award against an employer for sexual harassment by its employees because it did not show that it had "an active mechanism for renewing employees' awareness of the policies through either specific education programs or periodic re-dissemination or revision of their written materials," nor that its "supervisors were trained to prevent discrimination from occurring"); Equal Employment Opportunity Comm'n v. Wal-Mart Stores, Inc., 187 F.3d 1241, 1249 (10th Cir. 1999) (upholding a punitive damages award against Wal-Mart based on actions by its employees because the evidence revealed "a broad failure" on its part to educate employees and supervisors on the requirements of the Americans with Disabilities Act).}

All of these learning costs are associated with legal change. The new norms may indeed introduce substantive improvements to the law. The mere transition between old and new nonetheless may involve potentially substantial learning costs for firms and individuals as they become familiar with, and give practical effect to, a new legal regime.

B. Uncertainty Costs

The costs of uncertainty that arise from legal transitions may appear similar to the learning costs just discussed. They are, however, conceptually different and ultimately more significant. Learning costs involve determining the content of a new law, mastering its complexities, sorting out its scope. Even after the most detailed and careful analysis, however, numerous questions are likely to remain. No body of law, for example, can plausibly address all matters within its scope, or anticipate all future developments in a given field of human activity.\footnote{165. It is a well-recognized phenomenon that, to some degree, every body of legal rules is incomplete, for (among other things) lawmakers lack the ability to foresee all issues that may arise within the regulated field. See, e.g., William N. Eskridge, Jr., Spinning Legislative Supremacy, 78 GEO. L.J. 319, 333 (1989) ("Every statute is enacted against a congeries of background assumptions about law, society, and the operation of the statute itself. These assumptions often turn out to be wrong, or insufficiently sophisticated, as circumstances change over time . . . "). The precise degree to which legal norms are inherently indeterminate, however, is highly controversial. For an introduction to the literature on the subject, see H.L.A. HART, THE CONCEPT OF LAW 125 (1961), which discusses the two "connected handicaps" of "ignorance of fact" and "indeterminacy of aim" in the identification of general standards of conduct, and Jules L. Coleman & Brian Leiter, Determinacy, Objectivity and Authority, 142 U. PA. L. REV. 549 (1993).}

These concerns are only compounded by questions of norm hierarchy as a body of law grows in complexity and detail.\footnote{166. For an elaboration on this point, see infra notes 185-190 and accompanying text.} The resulting normative gaps, both open and hid-
den,167 almost unavoidably leave a greater degree of "open texture"168 in new legal texts than in established ones.

In short, even after all that is learnable about a new body of law is learned, some level of uncertainty likely will remain. Eventually, an institution with formal authority to render final interpretations—typically, though by no means always,169 a competent court—can be expected to resolve many (perhaps most) disputed issues of law under a new legal regime.170 In the interim, however, legal actors will bear the costs of contending with the new uncertainty.171

Uncertainty costs arise in what might be viewed as both negative and positive forms. Negative uncertainty costs, which I will address first below, reflect the loss of the accumulated experience with a legal regime over time. Positive costs, on the other hand, reflect the uncertainty created by doubts over the precise meaning of, and simple lack of familiarity with, a new body of law. The two notions obviously are closely related, and indeed may be viewed as opposite sides of the same conceptual coin. But as we continue to examine the broad variety of legal transition costs, there is a value in pulling apart these two aspects of uncertainty and analyzing them separately.

167. For a discussion of hidden gaps in legislative texts, see Van Alstine, supra note 47, at 768–75.
168. HART, supra note 165, at 124–25 (coining the phrase "open texture" to describe the indeterminacy in both legislation and judicial precedent).
169. In our modern administrative state, the interpretive function is also fulfilled by regulatory agencies acting within the scope of authority delegated by the legislature. While not binding per se, the Supreme Court has made clear that an interpretive decision by a federal administrative agency on an issue within its area of expertise is entitled to substantial deference. See Chevron v. Nat'l Res. Def. Council, Inc., 467 U.S. 837 (1984). For more on this point, see infra notes 411–414 and accompanying text, discussing the role of administrative agencies in mitigating legal transition costs. In theory, the legislature itself could adopt authoritative interpretations of its own statutory provisions as uncertainties emerge over time. For reasons of efficiency and the dynamics of group decisionmaking, however, this is rarely done. Interestingly, a French attempt in the early 1800s to require that all interpretive decisions be made by a legislative commission proved to be a terrible failure. See JOHN P. DAWSON, THE ORACLES OF THE LAW 1 376–80 (1968) (discussing the failure of this experiment prescribed by the French Constitution of 1791).
170. Alternatively, in the case of a private dispute resolution the uncertainty will remain until a private adjudicative body (such as an arbitral tribunal) renders a final decision. The expenses of resolving legal disputes in this forum also reflect uncertainty costs; but because arbitral decisions commonly are not made publicly available, they will not provide future benefits for non-parties. I explore this point in greater detail below. See infra notes 431–435 and accompanying text (discussing the role of public interpretive decisions in mitigating legal transition costs).
171. Professor Louis Kaplow also addressed uncertainty in his significant work on transition policy. The focus of that analysis, however, was not on doubts about the content of law after adoption. Rather, it was on uncertainty over prospective changes in governmental policy, and the role this form of uncertainty plays in shaping transition compensation policy. See Kaplow, supra note 11, at 513 (observing at the outset of his analysis of transition policy that "[t]he central feature of any transition situation is the existence of uncertainty concerning future government policy prior to the government action").
1. Negative Uncertainty Costs: The Loss of Accumulated Certainty

The certainty offered by an express legal provision—whether a positive law norm or a private form—essentially has two components: drafting precision and interpretive gloss. The first of these reflects what might be termed the provision’s inherent certainty. As is readily apparent, there is likely to be a close relationship between the clarity of a new legal norm and the degree of care that is taken in articulating its intended content. This drafting precision thus delivers a built-in degree of certainty for later interpreters and other affected legal actors.

What is more significant at this point in the analysis is the role of interpretive precedent. Simply stated, legal precedent (in particular a common law system) decreases uncertainty. Whenever a competent court issues an interpretive ruling, that precedent reduces in some way the uncertainty surrounding the legal provision. In so distilling the content


173. Lawmakers that take care in drafting legal norms in this way in effect internalize the costs of legal change. For more on this point, see infra notes 375–399 and accompanying text, which analyzes the available means of mitigating legal transition costs.

174. As will be discussed in more detail below, however, the creation of a new body of law—even one designed to improve on a predecessor—carries a new risk of drafting error. See infra notes 297–302 and accompanying text.

175. This point has been made by a variety of prominent scholars in the past. See OLLER WENDELL HOLMES, JR., THE COMMON LAW 111–12 (Little, Brown & Co. 1946) (1881); William M. Landes & Richard Posner, Legal Precedent: A Theoretical and Empirical Analysis, 19 J.L. & ECON. 249, 271–72 (1976); see also Klausner, supra note 15, at 777 (noting that “scholars writing from a variety of perspectives have observed that precedents in general reduce the uncertainty of the legal rule they interpret”). But see D’Amato, supra note 113, at 10 (observing that the proliferation of potentially inconsistent precedent on a single issue may actually increase uncertainty).

176. I use this term “competent” here in the jurisprudential sense of a judicial body acting on an actual controversy and within its prescribed jurisdiction and scope of authority.

177. An interpretive decision that marks a substantial deviation from an accepted view on the content of a legal norm can also initiate its own phase of legal transition costs. Of particular concern in this regard will be controversial, and therefore potentially erroneous, decisions by lower courts until the legal issue is definitively resolved by the supreme court in the relevant jurisdiction. For a prominent example of this situation, see In re Peregrine, 116 B.R. 194 (C.D. Cal. 1990), which held that state law procedures for the perfection of security interests in copyright receivables were preempted by the Copyright Act. See also Alice Haemmerli, Insecurity Interests: Where Intellectual Property and Commercial Law Collide, 96 COLUM. L. REV. 1645, 1652 (1996) (observing that the field of security interests in copyright law “has been cast into utter confusion” by the In re Peregrine case).
of the law, the ruling provides guidance to future legal actors in the arrangement of their affairs.  

Interpretive precedent plays a particularly important role for comprehensive bodies of law. Here, repeated judicial examination can fill gaps, resolve ambiguities, delineate scope, and in general bring coherence even to a large set of detailed and complicated rules. Consider, for example, the numerous cases that have interpreted the Bankruptcy Code since enactment. Beyond resolving specific interpretive controversies, the cumulative effect of these decisions is to create cohesion in a body of law—an overarching theme that governs the interaction of its constituent parts. This process thus adds value even to provisions that have not yet been subject to formal judicial examination.

Legal norms of low inherent certainty also are likely to benefit considerably from interpretive gloss. Where a legal norm is ambiguous or otherwise crudely drafted, judicial interpretation may be the only effective means of bringing coherence to the law. To illustrate this point, consider the Supreme Court's role in clarifying the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Ambiguous and sometimes contradictory liability provisions in the act spawned nearly twenty years of confusion in the field. In the face of congressional inaction, the

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179. A search of electronic databases revealed over 46,000 reported opinions on the interpretation or application of the Bankruptcy Code.

180. In most civil law systems, the interpretive decisions even of supreme courts in theory do not have formal precedential effect. Nonetheless, even in such jurisdictions formal decisions by supreme courts carry at least a strong persuasive effect for subsequent courts. See Thomas Lundmark, Book Review, 46 AM. J. COMP. L. 211, 212 (1998) (reviewing INTERPRETING PRECEDENT: A COMPARATIVE STUDY (D. Neil McCormick & Robert S. Summers eds., 1998)) (observing that a recent report on a variety of jurisdictions found that "all of the civil law jurisdictions that were studied recognize the binding or persuasive quality of precedents in practice, even if not in theory").

181. See supra notes 172–174 and accompanying text (discussing the notion of inherent certainty).


Supreme Court ultimately intervened with an opinion that resolved a range of contentious liability issues under the act.184

Interpretive precedent will be of value even for legal provisions of seemingly high precision. Most important, judicial review can resolve issues of norm hierarchy. Every new legal norm must find its “fit” with related regimes and within the legal system’s overall hierarchy of norms. The common law must yield to contrary statutory provisions, for example, and these in turn to the Constitution. Through a process of “testing,”185 judicial review can clear away uncertainties not only about the content of a new legal provision, but also about its conformity with superior norms. This validation process is necessary even for highly specific rules.186

Similarly, judicial precedent is necessary to define a new provision’s scope of effect in interaction with related bodies of law. Here we confront, for example, the perennial debates over whether a particular statutory scheme was intended to displace or merely to supplement the prior norms in the field.187 Consider as just one illustration the interaction between the Uniform Commercial Code and the preexisting common law.188 Even for terms of high precision (such as many of the provisions of Article 9), judicial testing is necessary to resolve when specific dictates of the code may (or

184. See United States v. Bestfoods, 524 U.S. 51, 61-73 (1998) (holding that parent companies could be held liable under CERCLA on piercing the corporate veil theories or if they acted as a direct operator of a facility that caused a violation).

185. Goetz & Scott, supra note 105, at 286-87 (coining the term and describing the role of the state in testing combinations of express and implied contractual terms for latent defects).

186. Another illustration of this phenomenon is when a competent court reviews whether a state statute or common law norm has been preempted by a federal statute on the basis of the Supremacy Clause. See U.S. CONST. art. VI, cl. 2.

187. One important aspect of these debates is whether a particular statute should be viewed as a true code. See supra notes 30-32 and accompanying text (discussing the true codes common in Europe and South America). For a comprehensive examination of this issue, see Mark D. Rosen, What Has Happened to the Common Law?—Recent American Codifications, and Their Impact on Judicial Practice and the Law’s Subsequent Development, 1994 Wis. L. REV. 1119, 1199, which concludes that legislative enactments in the United States typically have adhered to a “perpetual index” model, which organizes and adjusts, but does not preempt, the preexisting legal order (often state common law).

must) yield to common law notions such as waiver and estoppel\textsuperscript{189} or, more controversially, to pervasive flexible norms such as the obligation of good faith performance.\textsuperscript{190}

Testing also can reveal hidden inconsistencies or latent ambiguities in legal text that is otherwise clear on its face. At some level, the normative content of every rule of positive law remains in doubt until the ultimate judicial authority in the relevant jurisdiction renders a final interpretive decision on its meaning and scope.\textsuperscript{191} The scrutiny occasioned by judicial review in this way can uncover depths of meaning in a legal provision or recognize implied restrictions not readily apparent from its text. When gaps remain, judicial examination can in an appropriate case utilize even highly precise provisions to construct conforming extensions by analogy, or through a more comprehensive process of inductive reasoning.\textsuperscript{192} The testing of a legal provision may be of even greater value when the response to such inquiries is in the negative. Certainty may be enhanced in a particular way when a final authority declares that the provision is not ambiguous or otherwise subject to a latent restriction.

Indeed, the value of a legal provision in this sense may grow with the mere passage of time. The absence of a formal interpretive decision in the context of an actual legal dispute may serve as an indicator that the provision is uncontroversial, and that others have not discovered a latent flaw in its apparent meaning.\textsuperscript{193}

The sum of these considerations is that the legal certainty provided by a given legal norm likely will grow over time. Through successive examination and clarification, interpretive decisions can be expected to remove

\begin{itemize}
\item \textsuperscript{189} See U.C.C. \textsection{} 1-103 (stating that, among others, the common law principles of “estoppel, fraud, misrepresentation, duress, coercion, mistake, bankruptcy, or other validating or invalidating cause” remain in effect unless displaced by “particular provisions” of the code).
\item \textsuperscript{190} For a detailed examination of the controversy over the conceptualization of the contractual duty of good faith, see infra notes 228–230 and accompanying text.
\item \textsuperscript{191} In our system, of course, the final expositor of the meaning of law is the judicial branch. This is particularly true for constitutional text, as the Supreme Court emphatically asserted in its recent decision on scope of congressional authority under the Commerce Clause. See United States v. Morrison, 529 U.S. 598, 614 (2000) (holding that “whether particular operations affect interstate commerce sufficiently to come under the constitutional power of Congress to regulate them is ultimately a judicial rather than a legislative question, and can be settled finally only by this Court” (quoting Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241, 273 (1964) (Black, J., concurring))).
\item \textsuperscript{192} For an examination of such a process in the case of true codes and similar legal texts, see Van Alstine, supra note 47, at 733–37.
\item \textsuperscript{193} Cf. Kahan & Klausner, supra note 15, at 720–21 (observing that “[t]he fact that . . . [a contract] term has persisted without having caused major problems is indicative of its workability” and that “prior users of the term may have noted problems in its formulation and modified the term accordingly”).
\end{itemize}
ambiguities, resolve inconsistencies, and otherwise define the contours of legal norms after adoption. The cumulative consequence is a progressive reduction in the universe of potential disputes over a new legal norm and thus a progressive increase in the certainty it affords legal actors contemplating future action.

When, then, a legal system chooses to repeal or replace an established legal norm—even one that upon original adoption was uncertain or otherwise suboptimal—it risks the loss of an important societal investment. The accumulation of interpretive precedent involves substantial private litigation and public adjudication costs. Over time, these costs, as we have seen, may provide a payoff in the form of increased legal certainty. To be sure, new legal norms themselves can enhance the certainty in a legal field by expressly resolving contentious issues and otherwise addressing the existing legal costs that inhibit socially beneficial activities. But without careful accommodation (about which more later), undisciplined reform may compromise the certainty that has coalesced around the established norms in the field with the result that the costs of development no longer bring benefits for future legal actors.

194. There is an affinity between the costs of creating certainty in a legal field over time and the notion of “sunk costs.” WILLIAM F. SAMUELSON & STEPHEN G. MARKS, MANAGERIAL ECONOMICS 238 (2d ed. 1995) (describing a sunk cost as one “that has already been incurred and cannot be recovered”); David Harbord & Tom Hoehn, Barriers to Entry and Exit in European Competition Policy, 14 INT’L REV. L. & ECON. 411, 414 (1994) (describing sunk costs as those costs that cannot be recovered upon the cessation of the related activity or even exiting from the industry).

195. See infra notes 330–337 and accompanying text (noting the costs incurred by public institutions from private litigation).

196. The legal benefits of accumulated certainty of course must be balanced with substantive benefits of legal change, which may include the clarification of unresolved issues in the law. As I discuss below, the proper role of the transition costs from changing the norm thus is as one material input in a reasoned decisionmaking process. See infra notes 369–374 and accompanying text.

197. See infra notes 375–399 and accompanying text (discussing the means by which lawmakers can address the accumulated certainty in a field of law and thus mitigate transition costs of legal change in advance).

198. In the same way, the repeal or replacement of an established body of law also will devalue the certainty that arises from the absence of disputes over a longer period of time. See supra note 193 and accompanying text (discussing the benefits that flow from the mere passage of time).

199. This point may obtain even if a new legal norm is designed merely to restate the precise substance of the one it replaces. A five-year effort in the Occupational Safety and Health Administration to simplify the wording of its regulations provides a good illustration. The clearly stated goal of this continuing effort is only to reformulate the regulations into “plain English,” and not to change their substance in any way. One example is an attempt to replace outmoded language in a 1971 regulation from “Means of Egress” to “Exit Routes.” Although all participants in the process have acknowledged that no substantive change is intended, the mere notion of rewording the regulation has generated considerable criticism based on the fear that something
2. Positive Uncertainty Costs: Contending with New Legal Norms

The adoption of a new body of law also will impose uncertainty costs when viewed ex ante. Beyond the potential loss of accumulated experience and knowledge, the adoption of newly articulated legal norms represents a new moment for questions of meaning, scope, and effect. When, as is now commonly the case, the source of new norms is a legislature, adoption also will initiate a new round of debate about institutional allocations of law-making authority. Ample illustration for this point can be found in the spirited modern debates over the power of federal courts to interpret and develop statutory law. All things being equal, in other words, new legal norms are likely to be more risky than the ones they replace.

This new round of potential uncertainty in the law imposes positive costs on legal actors in a variety of ways. The first relates to the process of planning to accommodate the unclear mandates of the law. Simply stated, uncertainty means risk, and risk avoidance involves planning costs. In the context of a new legal rule, this risk arises from the broadened realm of potential interpretations. Until authoritative interpretive action, legal actors must incur the increased expense of planning for, and executing schemes to address, the multiple contingencies that fall within the wider range of doubt. The consequence in the interim is less accurate and thus less efficient decisionmaking.

Just as with all other types of transition costs, examples of this phenomenon abound. To chose just one, consider the confusion created by the
Racketeer Influenced and Corrupt Organizations Act (RICO). The goal of the act may have been laudable. But uncertainties about RICO's precise meaning and effect (in particular with respect to civil liability) initiated an extended period of increased planning and litigation costs for affected legal actors. The more risk-averse ones simply may have refrained from potentially covered, but nonetheless legal, activities altogether.

Closely in parallel with these considerations is a likely increase in the cost of legal and other professional advice. Uncertainty in a new body of law, in particular an innovative or complicated one, may mean a reduction in competition from the smaller pool of professionals with sufficient resources to develop timely expertise. The likely result of the heightened uncertainty thus is both a decrease in the quality of professional services and an increase in the costs of obtaining competent advice.

The new moment of uncertainty also will translate into increased negotiation costs. For consensual transactions, uncertainty about the legal infrastructure broadens the range of issues in need of private resolution. In so doing, a new body of law may introduce friction into the negotiation of transactions within its scope. The resultant increase in the costs of private ordering will make some socially desirable transactions less efficient and deter others altogether.

Relatedly, a new legal regime of uncertain content likely will lead to increased dispute resolution costs. I have noted above that the accumulation

    Neither the RICO statute nor its judicial interpretations provide equivalent clarity or specificity [to the federal securities laws]. In this respect, uncertainty also imposes costs. In many cases, when the outcome is uncertain, a prudent defendant may assume the worst and proceed from there. This creates an incentive to avoid risky situations through extra investigation and settlement expenditures.
207. Id. Although uncertainty costs extend beyond the learning costs discussed above, there is a relationship between the two. Uncertainty can increase learning costs, as legal professionals must expend additional time and effort in an attempt to discern the content of the law. See Maggs, supra note 110, at 126 (noting that ambiguous statutes "augment the cost of legal research by increasing the number of cases and amount of other material that an attorney must consider to understand the law").
208. See supra notes 119, 139 and accompanying text (examining the role of legal and other professionals in legal learning and in reducing uncertainties in the law).
209. Cf. Kaplow, supra note 26, at 613 (observing parenthetically that the uncertainty from an open-ended legal term will impose "interim additional costs" on transactors from the necessity of "acquiring expensive, although only marginally helpful, advice" about potential meanings).
210. The risks of uncertain new legal rules may discourage transactors from undertaking socially desirable transactions in the first place. See infra notes 239-242 and accompanying text (analyzing this contention in more detail under the rubric of opportunity costs).
of interpretive precedent involves costs, and that these may become a wasted investment upon the repeal of the subject body of law.\textsuperscript{211} The introduction of a replacement regime begins the process anew. Ambiguous or uncertain terms first may increase the universe of potential disputes, and thereby the likely incidence of litigation.\textsuperscript{212} Similarly, because the meaning and effect of new norms may be difficult to predict, the new uncertainty may lead to a protraction of litigation once filed. Beyond a new round of public litigation costs,\textsuperscript{213} this likely also will mean an increase in the costs of negotiating out-of-court settlements.\textsuperscript{214}

Perhaps paradoxically, even the introduction of a body of law designed to reduce litigation can impose increased dispute resolution costs. Consider as an illustration the unfortunate story surrounding the Private Securities Litigation Reform Act (PSLRA) of 1995.\textsuperscript{215} One of the primary goals of the PSLRA was to inhibit securities fraud litigation.\textsuperscript{216} Not long after its adoption, however, Congress was confronted with evidence\textsuperscript{217} that the actual effect of the PSLRA was to foment litigation.\textsuperscript{218} Congress attempted to

\textsuperscript{211}. See supra notes 195-199 and accompanying text.

\textsuperscript{212}. See Lee, supra note 27, at 648-53 (asserting that the stability in the law gained by adherence to precedent lowers uncertainty and thereby decreases litigation costs); Macey, supra note 117, at 107 (asserting that the stability gained by adherence to precedent lowers uncertainty and thus "result[s] in less litigation"); Maggs, supra note 110, at 127 (observing that ambiguity in statutory norms "promotes litigation [that] ... consumes attorney's fees and the time of all the parties involved").

\textsuperscript{213}. See infra notes 329-337 and accompanying text (examining public litigation costs institutions upon a change in the law).

\textsuperscript{214}. Cf. Ehrlich & Posner, supra note 35, at 265 ("According to the economic analysis of the settlement of legal disputes out of court, an increase in the predictability of the outcome of litigation . . . should reduce the total costs of legal dispute resolution."); Landes & Posner, supra note 175, at 272 (observing that "uncertainty will increase the private costs of negotiating out-of-court settlements of disputes resulting from attempts to apply [an uncertain] statute because the outcome of litigation over the meaning of the statute will be difficult to predict").


\textsuperscript{218}. See Caioia, supra note 216, at 328-34 (noting that uncertainty about the meaning of new pleading requirements introduced by the PSLRA caused a three-way split among the circuit courts). For a review of this split, see Press v. Chemical Investment Services Corp., 166 F.3d 529
address this problem with a new statute, the Securities Litigation Uniform Standards Act (SLUSA) of 1998,219 designed to clarify the PSLRA. Unfortunately, the SLUSA itself has initiated a new round of litigation because of uncertainties about its precise effect.220 Notwithstanding the goal to decrease litigation, therefore, these repeated changes in the law in fact have imposed substantial transitional dispute resolution costs.221

Uncertainty costs nonetheless will vary with the nature of the new legal provision at issue. A narrow, rigid rule defining a specific right or obligation—a statutory provision requiring a particular act within a specific time, for instance222—in the typical case may raise few transitional concerns.223 Because of the relative precision of rigid rules, less is to be gained from interpretive precedent over time.224


220. One of the principal reasons for confusion here relates to cryptic references in the SLUSA to a dispute over the amended pleading requirements in the PSLRA. See S. REP. No. 105-182, at 5-6 (1998) (purporting to add a legislative intent to the PSLRA adopted three years earlier); H.R. CONF. REP. No. 105-803, at 15 (1998) (same); see also 1998 U.S.C.C.A.N. 767-68 (including a statement by President Bill Clinton upon signing the SLUSA of his view on the dispute). Although the purported purpose for these legislative references was to clarify the law, their actual effect may have been simply to add fuel to the controversy. See Nicole M. Briski, Comment, Pleading Scienter Under the Private Securities Litigation Reform Act of 1995: Did Congress Eliminate Recklessness, Motive, and Opportunity?, 32 LOY. U. CHI. L.J. 155 (2000) (noting the split in the circuit courts on the issue and arguing that the Supreme Court should step in to resolve the confusion); Christopher J. Hardy, Comment, The PSLRA's Heightened Pleading Standard: Does Severe Recklessness Constitute Scienter?, 35 U.S.F. L. REV. 565 (2001) (discussing the same confusion and arguing in favor of one particular circuit court view).

221. As we will see in more detail below, the essential question here is whether the desired long-term decrease in litigation costs ultimately will outweigh the increase in transitional dispute resolution costs. See infra notes 369-374 and accompanying text.

222. Rules of procedure provide a good example. See, e.g., FED. R. CIV. P. 12(a)(1)(A) (requiring an answer within twenty days of the service of the complaint); FED. R. APP. P. 4(a)(1)(A) (stating the general rule that a notice of appeal must be filed with the district court clerk within thirty days after the judgment or order appealed from is entered).

223. But even here, uncertainty costs may result from questions of validity and norm hierarchy. See supra notes 185-190 and accompanying text (discussing the uncertainty that may exist even for clear and narrowly tailored rules).

224. Crafting a norm as an inflexible rule instead tends to impose costs ex ante. That is, legal rules require lawmakers to bear the full cost of careful formulation and well as of negotiation and compromise at the time of drafting. To the extent that drafters refuse to internalize these costs, they in effect impose them on subsequent interpreters and other affected legal actors (whether public or private). In the legislative realm, this accounts at least in part for the substantial increase in attention by legal scholars and courts to issues of statutory interpretation. See supra note 24 (providing an introduction to the contentious literature on statutory interpretation). For an analysis of the value of careful drafting in mitigating the costs of legal transitions, see infra notes 380-382 and accompanying text.
In contrast, a new, open-ended standard of indefinite scope and content may leave substantial postadoption uncertainty. Legal norms in this form take on functional content only through progressive judicial interpretation and application in a variety of factual contexts over time. Upon adoption, therefore, legal actors will lack guidance on the content of the law, and thus on how to arrange their affairs efficiently ex ante and to resolve interpretive disputes ex post. This is the heart of uncertainty costs.

Take, for example, the pervasive legal obligation of good faith in the assertion of rights and the performance of duties. Although the notion began to take hold in this country in the middle of the last century, even

225. See Kahan & Klausner, supra note 15, at 724 (noting that judicial precedent is a form of “learning benefit” for contract terms and arguing that for terms structured as standards “the accumulation of judicial precedent would tend to be a major source of learning benefits”); Kaplow, supra note 26, at 577 (observing that, as compared to narrow rules, standards tend to increase ex post enforcement costs).

226. The formulation of legal norms as general standards rather than precise rules may occur either by design or as a result of the inability or unwillingness of lawmakers to make the necessary policy choices. See Maggs, supra note 110, at 132–33 (noting that in order to avoid controversy “lawmakers may choose to leave key issues unresolved in hopes that the judiciary will supply an answer and absorb the political consequences”). Some commentators have also argued that a preference for status quo reinforcing open-ended standards may result from the simple organizational structure of a lawmaking institution. See Schwartz & Scott, supra note 8, at 598–99 (arguing that the structure and composition of the private bodies involved in drafting uniform law will lead to excessive reliance on open-ended standards that merely confirm the status quo, except when concentrated interest groups are able to obtain targeted rules favorable to their interests).

227. See Kaplow, supra note 26, at 611 (noting that “to the extent laws are promulgated as standards, predictability will be enhanced by precedent to the extent precedent transforms standards into rules”).

228. A host of statutory regimes impose an obligation of good faith (or prohibit bad faith) for conduct within their scope. For a very recent example, see the Anticybersquatting Consumer Protection Act, which creates a cause of action to challenge bad faith registrations of Internet domain names. See 15 U.S.C. § 1125(d) (Supp. V 1999). Indeed, there is a burning controversy over whether a duty of good faith inheres in all statutory rights and obligations. Consider, for example, the debate over whether there is an inherent duty of good faith under the Bankruptcy Code (which contains no such express duty). See In re Khan, 35 B.R. 718 (Bankr. W.D. Ky. 1984) (finding an implied good faith requirement in Chapter 7). But see Katie Thein Kimlinger & William P. Wassweiler, The Good Faith Fable of 11 U.S.C. § 707(a): How Bankruptcy Courts Have Invented a Good Faith Filing Requirement for Chapter 7 Debtors, 13 BANKR. DEV. J. 61 (1996) (sharply criticizing the courts for creating such a requirement when Congress deliberately refrained from incorporating one in the code).

now considerable controversy remains over its conceptualization. There are substantial reasons for preferring such flexible standards in many circumstances as the most effective means of legal development. But without careful accommodation, the introduction of a legal norm in this form is likely to impose increased planning, dispute resolution, and related uncertainty costs for legal transactions within its scope.

Another effect of the uncertainty spawned by legal change is an increase the likelihood of a form of opportunism. Broadly, opportunism may be viewed as bad faith exploitation of uncertainty. As unpredictability in the law grows, so too will the latitude for dubious claims masked as legitimate argumentation. Specious or otherwise bad faith assertions can be detected and punished. The costs of doing so through litigation, however, are substantial, particularly in this country; and there is the low probability of formal sanction in any event. Until definitive judicial interpretation, therefore, the introduction of a new legal regime will


231. Ensuring situational fairness or a recognition of a need for the gradual evolution of a uniform foundation for multijurisdictional transactions, for example, may militate in favor of creating a general framework and leaving the law to a causistic application and development by courts over time. See also infra notes 387-392 and accompanying text (examining the role of transition cost analysis in choosing between rules and standards).

232. The notion of opportunism is most commonly discussed in contract law. See Timothy J. Muris, Opportunistic Behavior and the Law of Contracts, 65 MINN. L. REV. 521, 521-22 (1981) (defining opportunism in contract law as a situation in which one party "behaves contrary to the other party's understanding of their contract, but not necessarily contrary to the agreement's explicit terms, leading to a transfer of wealth from the other party"); see also Charles J. Goetz & Robert E. Scott, Principles of Relational Contracts, 67 VA. L. REV. 1089, 1139 n.118 (1981) (discussing opportunism in contract). For broader examinations of opportunism from a law and economics perspective, see RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 103 (5th ed. 1998), which discusses opportunism, and OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING 47 (1985), which defines opportunism as "self interest seeking with guile."

233. Cf. Muris, supra note 232, at 525 (discussing "subtle opportunism" in contract and noting that, because it is difficult to detect and is "easily masked as legitimate conduct, [it is]... discoverable only at a high cost").

234. I say "particularly" here because of the American rule on attorneys fees. Under this rule—which is contrary to the approach of most legal systems—even successful litigants must bear their own litigation costs.

235. Rule 11 sanctions for bad faith assertion of legal claims are rare. Indeed, in 1993, Rule 11 was amended to limit the circumstances in which a court may sanction a party (and her lawyers). See FED. R. CIV. P. 11 (amended Dec. 1, 1993).
increase the likelihood of opportunistic argumentation at the margins of the law. 236

Finally, in our increasingly complex legal landscape uncertainty may arise from the simple potential for legal transitions. We have seen above that the increase in the sources of legal norms has led to an acceleration of law itself. 237 A potential consequence is a decrease in the long-term stability of any particular legal solution, and thus a likely increase in the overall costs that flow from uncertainty in the law. 238

C. Uncertainty and Opportunity Costs

Legal transitions also may impose uncertainty costs in a more subtle form: By decreasing guidance on the content of the law, the introduction of new legal norms may deter activities a legal system would want to encourage. The net result is a form of opportunity cost, 239 because affected legal actors are unwilling to bear the increased risks that accompany the increased uncertainty in the law.

Such opportunity costs may arise in one of two separate but related situations. The first is a new legal regime designed to facilitate a particular type of transaction or activity, but that does so with insufficient clarity. If for instance a new legal norm only crudely defines rights or obligations, affected legal actors rationally may choose not to engage in transactions in that field of law. As the uncertainty moves up the scale of transactors' risk tolerance, therefore, it will work to deter even legal activity that may be beneficial to them, and thus to society as a whole. 240

236. There are also nonlegal disincentives to bad faith conduct. See, e.g., Charny, supra note 83, at 392–97 (discussing the social, relational, and other nonlegal sanctions for bad faith actions). The role of social norms in regulating private behavior has become a hotly debated subject in recent legal scholarship. For an introduction into the legal literature on social norms, see ERIC A. POSNER, LAW AND SOCIAL NORMS (2000), Cass R. Sunstein, Social Norms and Social Roles, 96 COLUM. L. REV. 903 (1996), and Symposium, Law, Economics, & Norms, 144 U. PA. L. REV. 1643 (1996).

237. See supra notes 39–65 and accompanying text.

238. See McKinnon, supra note 131 (quoting a tax lawyer as observing that because of the likelihood of repeated changes in the tax code in the future legislators have "create[d] a sense of uncertainty which is very difficult for people and a tremendous trap for the unwary").

239. See Klausner, supra note 15, at 777 (asserting that the costs that flow from uncertainty in the parallel case of private contract terms include "the opportunity cost of not taking actions that would enhance firm value but that nonetheless entail a risk of violating the term"); see also POSNER, supra note 232, at 6 (defining opportunity cost as "[t]he benefit foregone by employing a resource in a way that denies its use to someone else" and noting for purposes of example that "the major cost of higher education is the foregone earnings that the student would make if he were working rather than attending school").

240. See Richard Craswell & John E. Calfee, Deterrence and Uncertain Legal Standards, 2 J.L. ECON. & ORG. 279, 299 (1986) (observing that uncertainty in the law may lead to excessive
A second instance of opportunity costs in this sense occurs when the state too coarsely identifies the activities it intends to deter. As Justice Thurgood Marshall long ago observed in connection with the constitutional void-for-vagueness doctrine: "Uncertain meanings inevitably lead citizens to 'steer far wider of the unlawful zone'... than if the boundaries of the forbidden areas were clearly marked."241 This is particularly so if the sanctions for violation are serious, such as in criminal law, or if the risk of exemplary damages is great. Here, the sanctions alone tend to cause excessive risk aversion, an effect only exacerbated by uncertainty in the definition of the prohibited activity in the first place.242 The result is that potentially affected actors will avoid questionable, but nonetheless legal, activity entirely.

Because it is likely to increase uncertainty, legal change will carry a heightened risk of such opportunity costs. The net result is a loss to society as a whole from the unwillingness of transactors to engage in or fully exploit beneficial, legal activity, even when the very purpose of new legal norms is to improve the legal environment for that activity.

D. Private Adjustment Costs

Even in our highly regulated modern legal world, the norms of positive law, of necessity, play only a limited role in the details of human affairs. This is so because the breadth and diversity of human activity preclude
lawmakers from addressing all issues in any particular field of law.\textsuperscript{243} Moreover, pragmatic considerations most often mandate that the details of compliance—the precise manner in which firms and individuals ensure their activities remain within the confines of the law—be left to the legal actors themselves.\textsuperscript{244}

As a result, nearly all areas of the law remain subject to a complex interaction between legal norms laid down by the state and private norms designed to supplement, implement, and (when allowed) adjust the positive law. Seen another way, beyond the patent function of defining express norms of conduct,\textsuperscript{245} positive law also fulfills a broader role of facilitating the creation of private conventions in the interstices of the law.\textsuperscript{246}

When, then, the state decides to change the law, transition costs will arise from the effect on the private conventions established within the framework of the old legal order. These private order costs can be distilled into two main categories: The first, which I discuss immediately below, is what might be termed intraparty transition costs. Broadly, these arise from the need to review and adjust internal forms and practices in response to a change in the law. The second category relates to the validity and meaning of interparty practices: the costs that flow from the impact on contractual and other conventions developed between private parties to regulate their interaction.

1. Intraparty Adjustment Costs

   a. Private Drafting Costs

   We have noted above that one of the benefits of stability in the law is that it encourages legal actors to create efficient standardized conventions to regulate their affairs within the confines of the law.\textsuperscript{248} Indeed, almost any

\textsuperscript{243} In addition, as noted in greater detail below, the common infirmities of vagueness, ambiguity, and lack of foresight will leave some degree of indeterminacy even in express rules of law. See infra notes 297–302 and accompanying text. These likewise will necessitate the development of private norms to fill the gaps in the regulatory scheme of any particular body of law.

\textsuperscript{244} The evolved administrative state has filled some of the void through delegations of lawmaking authority to ministerial actors. For examples of such delegations of implementing authority, see supra note 46 and accompanying text.

\textsuperscript{245} These norms may be either mandatory or "default" norms. For an examination of the impact of transition costs even for default rules, see supra notes 103–109 and accompanying text.

\textsuperscript{246} This observation is particularly apt for the United States, where the basic premise of the federal constitution is one of a limited government. As a result, the operative principle is that private action is permissible unless and until prohibited by affirmative governmental action (including through the recognition of private liability).

\textsuperscript{247} See infra Part II.D.2.

\textsuperscript{248} See supra notes 123–124 and accompanying text.
body of law designed to govern continuing activity will stimulate the development of a number of internal forms (employment policies, instruction manuals, and the like), many of which are highly firm-specific, if not proprietary.

Such intrafirm standardization carries a variety of advantages. First, the distillation of accumulated experience into a permanent form creates learning benefits. These flow from the ability to dispense with de novo development of contracts and similar forms for subsequent transactions as well as de novo training of firm employees. Standardization thus reduces the per transaction cost of repeat activities by freeing transactors from the resource costs of crafting individualized terms for each new transaction.

Similarly, standardization permits retention of progressive improvements from review and testing over time. As a reflection of accumulated wisdom and experience, it also should be less subject to formulation and interpretation error. Finally, standardization may create intrafirm efficiencies in interaction with third-party professionals. Repeat use of a standard form can enhance its familiarity among legal and other advisors, which in turn will reduce the cost and improve the quality of their advice. All things being equal, therefore, a well-established private form is likely to be more efficient than a new one.

The development of private conventions, however, involves costs. In addition to the resources for initial formulation, there will be opportunity costs associated with the engagement of firm agents. Not unlike the norms of positive law, the internal assimilation of a convention also will involve learning and uncertainty costs. And transaction costs will arise from progressive refinements over time.

A decision to replace an established convention, therefore, may initiate a new round of such costs. To illustrate this point, consider the commonplace, nonlegal illustration of a change from one word processing

249. These benefits are not limited to multiperson firms. Individuals also can secure efficiencies for repeat activities through a distillation of past experience in the form of routines and habits.

250. See Kahan & Klausner, supra note 15, at 725–26 (discussing the “network benefits” that arise from the use of standardized terms); Klausner, supra note 15, at 786–89 (same).

251. See Goetz & Scott, supra note 105, at 286–87 (arguing that the use of standardized contract terms “greatly simplifies and reduces the cost of contracting”).

252. Cf. id.; Kahan & Klausner, supra note 15, at 720–21 (arguing that the use of standardized industry contract terms will reduce the cost of formulation errors).

253. These benefits of familiarity by external advisors with established private forms parallel those of familiarity of legal practitioners with an established body of law. See supra notes 144–146 and accompanying text (discussing the learning benefits of stability in the law).

254. See supra Part II.A (analyzing the learning costs of new law), II.B (examining the uncertainty costs of new law).
program to another (from, say, WordPerfect to Word because of a change in firm policy). Here, the loss of the accumulated knowledge of firm agents will require retraining, including through expertise purchased from external consultants. Moreover, the net loss of experience will decrease efficiencies in the interaction among firm employees, and in their ability to transfer those efficiencies to new staff. Firm-specific refinements to the old program as well as the established interfaces with other firm practices likewise may be compromised. Finally, the lack of familiarity with the new program will enhance the costs of internal and external quality control, as well as the likelihood of error in future transactions.

In a similar way, intraparty adjustment costs will result from a repeal or replacement of the legal environment in which a private convention was developed. A change in the law will first require private actors to reexamine their existing forms to address new legal opportunities and risks. Necessary adjustments then will carry the cost of formulation and implementation. The replacement of an established private formulation also may compromise the accumulated learning and related benefits of standardization, and increase the likelihood of interpretive error by firm agents in the future.

Consider, as a brief example, the changes to the contract formation rules initiated by the original adoption of the Uniform Commercial Code. Although not mandatory, these changes imposed upon transactors the costs

255. Marcel Kahan and Michael Klausner aptly refer to these efficiencies as “internal network benefits.” See Kahan & Klausner, supra note 15, at 727–28 (analyzing private decisions to replace established contract terms).

256. See id. (observing that a decision to replace a standardized contract term will result in the loss of such internal learning and network benefits).

257. Cf. id. (illustrating intrafirm switching costs with the example of a change from an IBM personal computer to a Macintosh).

258. Cf. id. (discussing the switching costs that arise when parties change standardized contract terms); Lewis A. Kornhauser, An Economic Perspective on Stare Decisis, 65 CHI.-KENT L. REV. 63, 86 (1989) (discussing the “adjustment costs” that affected parties must incur to “adapt their behavior” to a change in tort law). For a discussion of switching costs in product markets, see supra note 13, which cites economics literature on private switching costs.

259. Though analogous, these intraparty adjustment costs are different in kind from the broader learning costs discussed separately above. At issue with private forms is not the cost of learning the content of new law; rather, it is the cost of reviewing and adjusting those forms to address the changes in the law, as well as the loss in efficiency that results from doing so.

260. One prominent example of the changes initiated by the Uniform Commercial Code was section 2-207. That section introduced complicated revisions to the common law rules governing contract formation through the exchange of standardized forms. See U.C.C. § 2-207 (2001). For an introduction to the contentious debates over this provision, see Douglas G. Baird & Robert Weisberg, Rules, Standards and the Battle of the Forms: A Reassessment of § 2-207, 68 VA. L. REV. 1217 (1982), and John E. Murray, Jr., The Chaos of the “Battle of the Forms”: Solutions, 39 VAND. L. REV. 1307 (1986). See also infra notes 313–319 and accompanying text (discussing other problems with the interpretation of section 2-207).
of reviewing and redrafting existing contract forms to adjust to the new risks. Years of trial and error in the courts also resulted in new requirements for transactors desiring certain protections in the formation process.\textsuperscript{261} The result was additional rounds of review and adjustment costs, some of which are still being incurred nearly forty years after the initial adoption of the code.\textsuperscript{262}

b. Private Administrative Costs

Private adjustment costs also will arise from required changes to intrafirm administrative practices and procedures. Particularly in large or decentralized firms, such formalized practices (working in tandem with standardized forms) secure compliance with the law as well as uniform implementation of firm policy. They are utilized, for example, by managers to ensure proper dissemination of legally relevant information;\textsuperscript{263} by corporate compliance officers to secure adherence to regulatory requirements; by human resource directors to ensure uniform investigation of employee complaints; and by purchasing and sales managers to control the creation of contractual obligations.\textsuperscript{264} The regularization of such practices can bring efficiencies that parallel those for standardized forms (learning benefits, reduction in error costs, and so on).\textsuperscript{265}

Like standardized forms, then, a change in the legal infrastructure can impose private adjustment costs through its effect on established administrative methods and practices. Upon a change in applicable legal norms, private actors will be required to reexamine their implementation regimes.

\textsuperscript{261} See Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91, 102 (3d Cir. 1991) (holding that a conditional acceptance can be manifested merely in a party's conduct); Dorton v. Collins & Aikman Corp., 453 F.2d 1161, 1168 (6th Cir. 1972) (holding on the same issue that an acceptance that is "subject to" additional terms was not sufficient to preclude contract formation); Constr. Aggregates Corp. v. Hewitt-Robins, Inc., 404 F.2d 505 (7th Cir. 1968) (holding that under U.C.C. § 2-207 an offeror need merely indicate that its acceptance is based on additional terms in order to preclude contract formation); Roto-Lith, Ltd. v. F.P. Bartlett & Co., 297 F.2d 497 (1st Cir. 1962) (holding that under U.C.C. § 2-207 any new material terms transform a purported acceptance into a rejection and counteroffer).

\textsuperscript{262} It is interesting to note that the UCC drafting bodies are now busily at work redrafting UCC Article 2, which will initiate a new round of such private adjustment costs. For the most recent draft of the revision, see \textit{Drafts of Uniform and Model Acts}, at http://www.law.upenn.edu/611/ulc/ulc.htm (last modified Oct. 4, 2001).

\textsuperscript{263} See, \textit{e.g.}, U.C.C. § 1-201(27) (1999) (making any notice to an organization effective unless it has systems in place that ensure communication of information to relevant officers in a timely manner).

\textsuperscript{264} Administrative contracting practices give practical value to standardized contract documents. Standard business terms, however carefully crafted, are of little value if agents do not take care that they are employed in conformity with the firm's contract formation policies.

\textsuperscript{265} See \textit{supra} notes 250-253 and accompanying text.
for conformity with the new law. When necessary, adjustments will have to be made, with the attendant costs of creation and implementation. In some cases, a change in the law will cause affected legal actors to create entirely new administrative structures to secure the advantages and avoid the negative consequences of the new legal regime. And, significantly, these private adjustment costs may not fall equally on all affected actors.

Although in different degrees, nearly every change in the law will involve private adjustment costs of this kind. To name just one example, consider once again the recently adopted revision of UCC Article 9. The numerous changes to the law governing secured credit initiated by this new body of law will require that lenders and credit seekers review and revise their internal forms and business practices to accommodate the new risks and opportunities.

It is important to emphasize, finally, that these administrative adjustment costs—like all of the other legal transition costs under discussion here—are different in kind from substantive compliance costs. Many legal regimes affirmatively require the creation of private administrative practices. Take, for example, the Foreign Corrupt Practices Act (FCPA). This act establishes (among other things) criminal liability for failure to devise and maintain “a system of internal accounting controls” for certain foreign activities. In contrast to the transitional adjustment costs just discussed,

266. Administrative adjustment costs parallel, but are different from, the “third order of learning costs” discussed above. See supra notes 163–164 and accompanying text. The latter refers to the costs of disseminating knowledge of the law to lower-level firm employees. Administrative adjustment costs, in contrast, involve the initial expense of developing and implementing firm practices to ensure compliance with legal mandates and firm policy on a continuing basis.

267. Some changes in the law may bestow a competitive advantage on frequent players who are able to spread their adjustment costs over a greater number of transactions. See Larry T. Garvin, The Changed (and Changing?) Uniform Commercial Code, 26 FLA. ST. U. L. REV. 285, 343 (1999) (noting that the adoption of revised UCC Article 9 may disadvantage “small banks and relatively infrequent credit users” because “just like their more active competitors, they will have to change their forms and, in a good many instances, their methods of doing business, but they will have fewer transactions over which to spread their costs”).

268. See supra notes 156–160 and accompanying text (discussing the potential uncertainty costs of revised Article 9).

269. See Garvin, supra note 267, at 343 (noting the need of lenders and credit users to change their forms and business methods in response to revised Article 9).


these private accounting controls are part of the direct compliance costs contemplated by this act.273

2. Impact on Accrued Private Networks

One of the principal benefits of stability in the law governing consensual transactions is that it facilitates the creation of networks of interparty contractual formulations.274 Similar to intraparty forms,275 these networks develop from the need to resolve issues left unsettled in the express provisions of positive law.276

As Professors Charles Goetz and Robert Scott have observed, private contract terms (like state-supplied default rules277) are likely to grow in value as they become accepted across a particular transaction type.278 Once established in this way, standardized formulations serve as a stable, and thus more accurate, medium of communication between transactors.279 By gradually

273. Nonetheless, even in such cases private adjustment costs may arise from any subsequent legal change. For example, Congress has already amended the Foreign Corrupt Practices Act on two separate occasions. Similar administrative adjustments costs can result from legal transitions initiated by judicial action. See Davis v. Monroe County Bd. of Educ., 526 U.S. 629, 648-49 (1999) (holding that school districts can be held liable under Title IX for "deliberate indifference" to student-on-student sexual harassment if they do not respond to known peer harassment in a manner that is not clearly unreasonable); Faragher v. City of Boca Raton, 524 U.S. 775, 807-08 (1998) (holding that an employer has an affirmative defense to liability under Title VII for acts of its employees if it can prove that it "exercised reasonable care to prevent and correct promptly any sexually harassing behavior, and...that plaintiff employee unreasonably failed to take advantage of any preventive or corrective opportunities provided by the employer or to avoid harm otherwise").

274. See supra note 124 and accompanying text; see also Kahan & Klausner, supra note 15, at 763-64 (noting that through their creation of mandatory and default corporate law rules, "[s]tate legislatures and judiciaries...implicitly perform the function of standard-setting organizations"); Klausner, supra note 15, at 837 (observing that "[l]egislatures, in enacting corporate law, and courts, in deciding corporate law cases, in effect serve as standard-setters and hence as facilitators...of contractual networks").

275. See supra notes 245-248 and accompanying text.

276. Most provisions of law governing consensual transactions are in the form of default rules subject to change by the parties. See, e.g., U.C.C. § 1-102(3) (2001) (stating that "[t]he effect of provisions of [the UCC] may be varied by agreement").

277. See supra notes 175-194 and accompanying text (discussing how the certainty in an existing body of law is likely to increase over time).

278. See Goetz & Scott, supra note 105, at 286-87 (advancing this point and referring to standardized terms as "preformulations").

279. Professors Goetz and Scott refer to this as the "labeling function" of standardized terms. Id. at 287.
increasing the number of mature contract terms, the process of standardization also can broaden the pallet of reliable options; this permits transactors to choose secure formulations that are more carefully tailored to their specific needs.\textsuperscript{280}

Moreover, and more important, standardized contract terms can offer the benefit of formal judicial interpretation. As acceptance of a particular term across a group of transactors grows, so too does the likelihood of judicial interpretation.\textsuperscript{281} Once blessed with an officially recognized meaning in this way, an established private formulation offers greatly enhanced reliability (and thus decreased risk).\textsuperscript{282} Over time and in a stable legal environment, then, private actors (especially repeat players) are increasingly likely to develop networks of efficient contractual formulations whose meanings are protected by official endorsement.\textsuperscript{283}

Just as a stable legal environment can facilitate the evolution of private contractual networks, however, a change in the background legal regime can compromise them.\textsuperscript{284} Most plainly, the creation of new mandatory law (so-called "immutable rules"\textsuperscript{285}) will displace contrary contractual terms.

\begin{itemize}
\item[280.] See id. at 287–88 (arguing that standardization "provides private parties with more 'off-the-rack' choices and thus offers a 'better fit' for those predisposed to purchase a standard cut and size").
\item[281.] This means that each new user of a widely accepted term in effect confers a benefit on other users. Similar to a video game system (say, the Sony PlayStation), the value of a particular contractual formulation will grow with each new user. This is so because an increase in the number of users enhances both the likelihood and effectiveness of interaction with others, and therefore the value to each individual user. See Kahan & Klausner, supra note 15, at 733–35 (suggesting that new adopters of standardized contract terms confer positive network externalities on existing users); see also Klausner, supra note 15, at 798–805 (discussing the notion of network externalities in greater detail). Later adopters of contractual formulations also confer a benefit on existing users by increasing the likelihood of judicial interpretation. See Kahan & Klausner, supra note 15, at 729 (arguing that increased adoption of a particular term confers positive learning and network externalities on existing users).
\item[282.] See Goetz & Scott, supra note 105, at 288 (referring to the benefits of official "recognition," and concluding that "[c]ontract interpretation ... serves to determine and announce relatively reliable definitions of contractual formulations that are protected by official acceptance").
\item[283.] As a result, an official judicial interpretation of even a privately generated contractual term creates a "public good." See supra notes 141–143 and accompanying text (discussing the notion of a public good and observing that judicial opinions creates public goods with regard to the learning costs of law); see also Goetz & Scott, supra note 105, at 286 (arguing that "[t]he state's recognition of the evolutionary trial and error process" for the creation of standardized contract terms "functions as a regulatory scheme designed to promote these 'public goods'").
\item[284.] In this respect, the loss of private contractual networks closely parallels the learning and uncertainty costs discussed above. Like those forms of general transition costs, the replacement of an established body of background law will impose costs from the uncertainty about the continued validity and effect of old private formulations and from the necessity to develop and learn about the content of new ones.
\item[285.] Ayers & Gertner, supra note 103, at 87 (describing immutable rules as ones that "cannot be contracted around; they govern even if the parties attempt to contract around them").
\end{itemize}
But even changes to default rules—those that are subject to disposition by the parties—may upset established private formulations. In a default legal regime, the challenge for interpreters is to determine which private terms are intended to supplant and which merely to supplement the state-supplied background rules.\textsuperscript{286} By sanctioning specific invocations over time, the process of official recognition permits transactors to signal their intent with increasing precision. A change to the content of default rules, then, can upset the careful balance of interactions developed within the framework of the prior legal order.

The net effect of this impairment of established contractual networks is the imposition of private adjustment costs. First, like intraparty forms, the initial development of interparty formulations involves significant internal transaction costs.\textsuperscript{287} These include the resource costs of time, effort, and the like expended in developing, testing, and revising a standardized term.\textsuperscript{288} In addition, there will be learning costs associated with accumulating and disseminating knowledge about the term’s intended meaning.\textsuperscript{289}

Moreover, because final control over interpretation and enforcement resides with the state,\textsuperscript{290} there are serious exogenous development risks.\textsuperscript{291}

\begin{thebibliography}{99}
\bibitem{286}See Goetz & Scott, \textit{supra} note 105, at 281 (describing as “trumps” those contractual signals that are designed to displace default contractual terms).
\bibitem{287}See Kahan & Klausner, \textit{supra} note 15, at 727–28 (noting the loss of internal learning benefits and related costs that arise from switching from an established contractual term to a new one); see also Goetz & Scott, \textit{supra} note 105, at 276–78 (noting that “the process of contractual formulation is subject to inherent endogenous hazards that emerge and undergo correction only over time”).
\bibitem{288}In some cases, the costs of developing standardized formulations are borne by industry associations and other standard-setting organizations. Examples include the Corporate Trust Indenture Project of the American Bar Foundation and the Generally Accepted Accounting Principles of the Financial Accounting Standards Board. See Kahan & Klausner, \textit{supra} note 15, at 761–63 (citing these examples and discussing their role as standard-setting organizations). In the international arena, prominent examples include the International Commercial Terms (INCOTERMS) and the Uniform Customs & Practices for Documentary Credits (UCP) promulgated by the International Chamber of Commerce. See also infra note 380 (describing the role of standard-setting organizations in internalizing the costs of developing private formulations).
\bibitem{290}An apparent exception to this rule occurs with private arbitration. Nonetheless, even in this case final control over the interpretation and enforcement of privately generated contract terms rests with third parties, namely, the independent arbitrators.
\bibitem{291}See Kahan & Klausner, \textit{supra} note 15, at 720 (“A newly customized contract term . . . may often entail relatively high error costs.”); see also Goetz & Scott, \textit{supra} note 105, at
\end{thebibliography}
These flow from the fact that the precise effect of innovative terms will remain unclear—and latent errors undetected—until formal judicial interpretation. In the interim, therefore, innovators of contract terms will bear the costs of the uncertainty.

Each transition in a background legal regime risks the reimposition of these costs. Without careful accommodation, private parties may lose the accrued benefits of established private networks, and thus be forced to incur again the development costs for new ones. Moreover, the replacement of a settled regime may recreate the environment of risk associated with generating new private formulations in the first place. Each change in the law thus risks reinitiating the long period needed for private networks to percolate and evolve, with all of the attendant planning, negotiation, and dispute resolution costs of establishing secure private formulations.

E. Error Costs

Legal transitions also may occasion an increase in error costs. Broadly, these costs arise from imperfections in the articulation, or inaccuracies in application, of the law. Just as the adoption of new legal norms may create a new moment for uncertainty about their meaning and effect, it may initiate a new cycle for potential error in their formulation and interpretation.

A first form of error costs arises at the point of production. Lawmakers are neither omniscient nor perfectly prescient, and language itself

278 (discussing the risks of innovation in private contractual terms that flow from the absence of prior testing by courts "for various types of formulation errors").
292. See supra notes 185–192 and accompanying text (analyzing the role of judicial “testing” in defining the content and validity of legal norms).
293. See Goetz & Scott, supra note 105, at 278 (arguing that innovation involves risks for private contractors and observing that "[s]ince the legal system retains ultimate power over interpretation and enforcement, parties cannot be certain what effect will be given to any formulation until it is tested").
294. See infra notes 375–392 and accompanying text (analyzing the available drafting and implementation techniques to mitigate transition costs in advance).
295. See Goetz & Scott, supra note 105, at 265–66 (examining the error costs that arise from the formulation of contract terms); Lee, supra note 27, at 653 (discussing the error costs avoided by adherence to a permissive system of stare decisis).
296. See supra notes 200–203 and accompanying text.
297. The costs of formulation error are conceptually distinct from the uncertainty costs discussed above. Formulation errors arise when lawmakers unintentionally choose inaccurate signals upon adopting the agreed content of a legal directive. Although there may be substantial overlap in some cases, uncertainty costs, in contrast, issue from the inability of later interpreters to identify or agree on the precise content of a legal directive, and the litigation and related expenses of removing such doubts about its meaning and effect. Moreover, uncertainty costs can arise from the affirmative choice of flexible standards over more specific rules. On this latter point, see supra notes 225–231 and accompanying text.
298. See supra notes 165–168 and accompanying text (discussing indeterminacy in legal norms).
can be a blunt instrument for articulating specific directives intended for general application. Because of this, legal norms are subject to the commonplace formulation errors of unintended vagueness or ambiguity, 299 incompleteness, 300 overbreadth, 301 and (more destructive) inconsistency. 302

The very initiation of law thus may contain its own seeds of error. 303 In turn, each new change in the law represents a new moment for mistakes in production. This is not to say that contemporary lawmakers somehow are more prone than their predecessors to signal their intent inaccurately. It simply means that, like most human enterprises, some built-in error rate will attend every attempt to articulate new legal norms. 304 Moreover, over time past formulation errors commonly are ironed out or reconciled in some way. Detailed judicial inquiry—although controversial in modern scholarly debate 305—often will uncover (or construct) the “true” meaning behind faulty legislative signals. Subsequent legislative tinkering can achieve the same end. Witness, for instance, the cumulative effect of judicial and

299. A legal norm is vague when interpreters cannot divine its intended meaning and thus determine whether it applies to any particular factual circumstance. Ambiguity, in contrast, arises if a norm is subject to more than one possible meaning, such that its application to two identical factual circumstances may generate different legal outcomes. See E. Allan Farnsworth, “Meaning” in the Law of Contracts, 76 YALE L.J. 939, 953 (1967) (explaining the difference).

300. Drafting defects of this nature occur when a legal norm fails to give express guidance on a contingency, even though it is within the norm’s intended sphere of application. See Goetz & Scott, supra note 105, at 268–70 (describing the formulation error of incompleteness).

301. Most often, overinclusiveness results from the inability of lawmakers to foresee future developments in the regulated field of human activity. See, e.g., William E. Kovacic, Law, Economics, and the Reinvention of Public Administration: Using Relational Agreements to Reduce the Cost of Procurement Regulation and Other Forms of Government Intervention in the Economy, 50 ADMIN. L. REV. 141, 144 (1998) (noting that “[s]ome degree of overinclusiveness is the inevitable product of the drafter’s inability to foresee...all contingencies that might dictate departures from a given [legal] standard”).

302. In this instance, the law gives legal actors conflicting instructions on what is compelled or permitted. A final, fortunately uncommon, type of formulation error results from mechanical or similar administrative mistakes in the physical reduction of legal norms with a clearly intended content. See, e.g., John E. Murray, Jr., The Revision of Article 2: Romancing the Prism, 35 WM. & MARY L. REV. 1447, 1473–74 (1994) (noting that a curious deletion of critical words in a section of the Uniform Commercial Code “may have been a printer’s error”); see also Goetz & Scott, supra note 105, at 268 (discussing “administrative” formulation errors in private contractual terms resulting from inaccurate transcription or inadvertent omission or misstatement).

303. Sometimes lawmakers will intentionally leave a legal norm ambiguous and thus defer resolution of an issue or delegate authority over it to another legal institution (most often, administrative agencies or the courts). This does not reflect a formulation error in the narrow sense. It may, however, generate significant transitional uncertainty costs.

304. See Maggs, supra note 110, at 142–48 (describing twenty “recurring ambiguities” in statutes identified in a five-year study of Supreme Court opinions); see also id. at 150 (concluding that such recurring ambiguities “would appear to result primarily from Congress’ inattention rather than deliberate action” such as delegating an issue to the courts).

305. See supra note 24 (citing recent literature on the contentious debate over judicial use of legislative history in the interpretation of statutes).
Costs of Legal Change

legislative refinement of the Federal Rules of Evidence in the last half century.\(^{306}\)

Error correction, however, involves costs. Formulations later discovered to be erroneous can lead private actors to make wasteful investments. Avoidable public costs also will arise from the judicial time and resources wasted on investigation and analysis;\(^{307}\) parallel litigation costs will be imposed on private participants in the process. Because the introduction of an untested legal norm represents a new moment of potential formulation error, each change in the law thus risks a new round of this form of transition costs.

A second form of error arises at the point of application. Even when lawmakers adopt legal norms that (reasonably) accurately signal their intent, courts or administrative authorities may erroneously interpret them. Such interpretive error in effect imposes a new content on a legal rule, indeed one that is at odds with its true content. Mistakes in interpretation, like those in formulation, can be corrected.\(^{308}\) Subsequent judicial review, for example, can reverse a misguided decision by a lower court,\(^{309}\) or overturn a court’s own improvident judgments. On issues of statutory law,\(^{310}\) legislatures

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307. Even in absence of formulation error in the sense discussed in the text above, faulty legislative signals may lead to judicial interpretations not desired by the legislature. A result is a new round of legislative drafting costs to clarify the ambiguity. See Maggs, supra note 110, at 129–30 (noting that statutory ambiguity increases “replacement costs” as the legislature is forced “to expend its energy” to change a judicial interpretation it views as incorrect).

308. This phenomenon may occur in the interpretation of the common law as well. The error here arises when a lower court (or a federal court sitting in diversity) misinterprets state supreme court precedent on an issue of state common law. When the misguided view operates as precedent in a jurisdictional sub-unit, such as in a state or federal appellate district, error costs will arise much in the same way as with erroneous interpretations of statutory law.

309. A separate form of error relates to the application of legal norms to the facts of a particular case. These errors of application are common and in large measure unavoidable. They do not trigger the types of legal transition costs under discussion here, however, as long as the erroneous factual application of the law does not infect the interpretation of the legal principle at issue in later disputes.

310. In theory, legislatures also have the power to overturn court decisions on issues of common law. In the relatively rare case that they do so, however, legislatures typically act simply to displace judicial authority on the issue in its entirety, not to correct any judicial “error” in the interpretation of the common law.
also retain the power to correct faulty interpretive decisions, even by a supreme court.\(^{311}\)

The correction of interpretive error, however, likewise involves costs. Similar to formulation errors, these costs will include the public and private process costs associated with correction itself.\(^{312}\) What may be more important is the effect on private investment. The erroneous interpretation may compromise investments founded on the original meaning of a legal rule. Even if corrected, the investments may become permanently wasted by mere passage of excessive time until the correction. The same will occur for new investments encouraged by the mistaken interpretation itself.

Consider once again the complex contract formation rules of UCC section 2-207.\(^{313}\) Shortly after the code's widespread adoption, the U.S. Court of Appeals for the First Circuit interpreted section 2-207 in a way clearly at odds with the provision's text and official comments.\(^{314}\) Subsequent courts in other jurisdictions refused to follow the interpretation,\(^{315}\) and scholars were openly critical.\(^{316}\) In spite of this, the matter remained uncorrected in the First Circuit for well over a quarter century,\(^{317}\) until the court reversed itself and joined the consensus view.\(^{318}\) In the interim, however, the interpretive error thwarted the code's core directive to advance national uniformity on one of the most significant issues in commercial

\(^{311}\) The evidence suggests, however, that Congress in fact rarely acts to overturn Supreme Court interpretations of federal statutes. Cf. William N. Eskridge, Jr., Overriding Supreme Court Statutory Interpretation Decisions, 101 YALE L.J. 331, 335 (1991) (noting that Congress has been unable or unwilling to overrule judicial interpretive decisions in any systematic fashion).

\(^{312}\) See supra note 307 and accompanying text.

\(^{313}\) U.C.C. § 2-207 (2001) (governing contract formation and content in the case of a "battle of the forms").

\(^{314}\) See Roto-Lith, Ltd. v. F.P. Bartlett & Co., 297 F.2d 497, 500 (1st Cir. 1962).

\(^{315}\) See, e.g., Daitom, Inc. v. Pennwalt Corp., 741 F.2d 1569, 1576-77 (10th Cir. 1984) (rejecting Roto-Lith); Luria Bros. & Co. v. Pielot Bros. Scrap Iron & Metal, Inc., 600 F.2d 103, 113 (7th Cir. 1979) (same); C. Itoh & Co. v. Jordan Int'l Co., 552 F.2d 1228, 1235 (7th Cir. 1977) (same); Dorton v. Collins & Aikman Corp., 453 F.2d 1161, 1168 (6th Cir. 1972) (same).

\(^{316}\) See JAMES J. WHITE & ROBERT S. SUMMERS, THE UNIFORM COMMERCIAL CODE (5th ed. 2000); Arthur Taylor von Mehren, The "Battle of the Forms": A Comparative View, 38 AM. J. COMP. L. 265, 280-81 (1990); see also John E. Murray, Jr., A Proposed Revision of Section 2-207 of the Uniform Commercial Code, 6 J.L. & COM. 337, 345 (1986) (stating years before the First Circuit reversed itself that "[t]he consensus is clear that Roto-Lith is unreliable precedent").


The result was a sustained period of excessive uncertainty and related dispute resolution costs as the erroneous view fomented avoidable controversies.

As this case illustrates, the risk of interpretive error increases with a new body of law, in particular a complex or innovative one. Some degree of error is inherent in any interpretive enterprise. But over time the accumulation of precedent on the same and related issues, of detailed scholarly analysis, and of simple familiarity, work to diminish the risk of misinterpretation of an established body of law.

Interpretive error costs spawned by changes in the law also may be private in nature. Even with careful professional advice, private actors may misgauge the import or effect of the new law, a circumstance that is only likely to increase in frequency as the new norms grow in complexity and detail. The consequences of such private interpretive error are the same: Investments inspired by the erroneous interpretation may become wasted upon a contrary final interpretation by a competent authority.

Finally, private error costs also include what might be termed "ignorance costs." Legal change increases the likelihood that private actors will not even be aware of the rules of law relevant to their affairs. This may lead both to an increase in unlawful activity, as legal actors unwittingly violate unknown prohibitions, and to those actors' failure to engage in socially desirable actions a new body of law may have been designed to promote.

319. See U.C.C. § 1-102(2) (2001) (stating that one of the primary goals of the code was to bring about national uniformity in commercial law).
320. See Goetz & Scott, supra note 105, at 272 (observing that "the inherent fallibility of the interpretive process generates an irreducible risk of error").
321. See supra notes 146-150 and accompanying text (discussing the role of legal practitioners in learning the law and communicating its content to clients).
322. There is admittedly substantial overlap between the costs of private interpretive error and the broader category of uncertainty costs. The principal value of examining private interpretive error separately lies in recognizing the tangible effects of actual decisions made on the basis of erroneous understandings of effect of new law.
323. Although founded on an erroneous interpretation of the law (as opposed to an unanticipated transition in governmental policy), these losses parallel those discussed by Louis Kaplow in his analysis of the effects of substantive changes in the law on long-term private investments. See Kaplow, supra note 11, at 515-19.
324. There is some level of a tradeoff between ignorance costs and learning costs. As noted above, some legal actors may choose to run the risk of being misinformed about the law rather than incur the costs of learning about its content. See supra note 140. The point about transitional ignorance costs is that the adoption of new law increases the likelihood that affected actors will not even be aware of the need to become informed in the first place.
325. See Maggs, supra note 110, at 127 (observing the statutory ambiguity can lead to "increased unlawful activity").
Advancements in international private law provide a good example. Commentators have observed, for instance, that there is an appalling lack of knowledge that an international treaty has displaced much of the Uniform Commercial Code for international sales transactions, even those involving Canada and Mexico. The consequence is that transactors have not adjusted their contracting practices to take advantage of the benefits and avoid the hazards of these changes in the law.

F. Public Transition Costs

The analysis to this point has focused on the costs legal transitions impose on private actors. Though less significant, the state also may experience increased costs from new legal regimes. These public transition costs flow primarily from the fact that the state is a participant not only in production of the law, but also in its administration and application.

The most significant public impact will be an increase in public dispute resolution costs. The state maintains an elaborate apparatus for the resolution of societal disputes, both public and private. It employs judges, clerks, and support personnel; administers filing systems; and constructs and

326. See supra notes 239–242 and accompanying text (noting the opportunity costs of uncertain law).


328. See, for example, James E. Bailey, Facing the Truth: Seeing the Convention on Contracts for the International Sale of Goods as an Obstacle to a Uniform Law of International Sales, 32 CORNELL INT’L L.J. 273 (1999), in which James Bailey observes that many U.S. businesses, lawyers and courts have yet to realize that contracts they assume are governed by the Uniform Commercial Code (UCC) are actually governed by the CISG. The dearth of U.S. caselaw concerning the CISG despite its ten years of applicability to the majority of U.S. international sales transactions is itself evidence of the lack of awareness of the CISG in the United States.

Id. at 280.

maintains court buildings. Even for purely private disputes, the state makes this system available at a "price" that does not even remotely approximate its costs. The public court system, in other words, represents an extensive state subsidy for the resolution of disputes.\footnote{See Leandra Lederman, Precedent Lost: Why Encourage Settlement, and Why Permit Non-Party Involvement in Settlements?, 75 NOTRE DAME L. REV. 221, 259 (1999) (observing that "taxpayers as a whole subsidize trials by bearing much of the costs of the public court system"); Rex E. Lee, The American Courts as Public Goods: Who Should Pay the Costs of Litigation, 34 CATH. U. L. REV. 267, 270 (1985) (observing that a public court system subsidizes private litigation).}

As we have seen, the introduction of new legal norms may lead to an increase in uncertainty in the law.\footnote{See supra notes 194–203 and accompanying text.} When this is the case, a likely consequence is an increase in the frequency of disputes\footnote{See supra notes 211–212 and accompanying text.} (both legitimate and specious\footnote{See supra notes 232–236 and accompanying text (discussing the likelihood of increased opportunism from uncertain law).}) and a decrease in the likelihood of their extrajudicial settlement.\footnote{Through the subsidy provided by its court system, the state itself will bear an appreciable part of the costs of this increased activity.\footnote{See supra notes 130–164 and accompanying text (describing the general phenomenon of legal learning costs).} Moreover, legal transitions will impose learning costs\footnote{This effect may be diminished substantially when an area of the law is entrusted to courts of special jurisdiction. For example, the Federal Circuit Court of Appeals (with regard to matters of patent law) and the Delaware Court of Chancery (for corporate law matters) are more likely to follow developments in their respective fields and thus have a shorter learning curve for relevant changes in the law. For a discussion of why a greater reliance on specialized courts might decrease the costs of legal transitions, see infra notes 416–423 and accompanying text.} for state judicial officers as well (especially those in courts of general jurisdiction\footnote{Similar costs may arise when one governmental unit imposes administrative obligations on another—for example, when the federal government imposes new mandates on the states. Recently, the U.S. Supreme Court has emphasized the constitutional limits on this practice. See Printz v. United States, 521 U.S. 898 (1997); New York v. United States, 505 U.S. 144 (1992). When permissible, inferior governmental units, similar to private legal actors, will incur transition costs from the need to adjust forms and practices to new legal mandates that are relevant to their activities.}). These may lead to more prolonged, and therefore more costly, proceedings.

Similar public transition costs will arise from the impact of new legal norms on the hybrid work of administrative agencies.\footnote{Similar costs may arise when one governmental unit imposes administrative obligations on another—for example, when the federal government imposes new mandates on the states. Recently, the U.S. Supreme Court has emphasized the constitutional limits on this practice. See Printz v. United States, 521 U.S. 898 (1997); New York v. United States, 505 U.S. 144 (1992). When permissible, inferior governmental units, similar to private legal actors, will incur transition costs from the need to adjust forms and practices to new legal mandates that are relevant to their activities.} In their (now
expansive) capacity as adjudicatory bodies, administrative agencies will incur increased dispute resolution costs that parallel those noted immediately above. In their executive function, the accommodation of new legislative directives will resemble private adjustment costs. These will include transitional drafting and administrative costs similar to those private actors bear in adapting their affairs to new legal norms.

III. THE IMPLICATIONS OF TRANSITION COST ANALYSIS

A. Assessing the Impact of Legal Change

The analysis in Parts I and II above exposes a latent flaw in the standard model of lawmaking. However framed or articulated, the dominant currency of lawmaking projects is benefit. In some (though by no means all) cases, lawmakers weighing a reform proposal also may consider the substantive disadvantages that might flow from its adoption. The value of


341. See supra notes 248–262 and accompanying text.

342. See supra notes 263–273 and accompanying text.

343. There is a fine line between public administrative transition costs and the inherent costs of executing the law. The development of certain administrative mechanisms may be the very goal of a statutory enactment. The costs of creating and equipping the Equal Employment Opportunity Commission (EEOC) to administer (among others) the Age Discrimination in Employment Act (ADEA), the ADA, Title VII of the Civil Rights Act of 1964, the Equal Pay Act of 1963, and aspects of the Rehabilitation Act of 1973 might serve as a good example here. See 42 U.S.C. § 2000e-4(g) (Supp. V 1999) (granting the EEOC oversight authority over the noted acts as provided therein). In other contexts, in contrast, the commonplace costs of creating forms and adjusting practices to accommodate new statutory mandates may reflect simple transition costs. The extent of the latter often escapes attention in the focus on the substantive legislative goals.

344. Although substantially less significant, a final note is appropriate on the costs of drafting new legal norms. At the congressional level alone, the process of developing and formulating law involves extensive committees, legislative staff, and associated administrative support. These purely public drafting costs properly may be viewed as an essential governmental function. But there are related private costs as well. A prominent example here is the work of the private American Law Institute in the drafting of the Uniform Commercial Code. See supra notes 51–53 (discussing the work of the American Law Institute and the National Council of Commissioners on Uniform State Laws in drafting and revising the Uniform Commercial Code).

345. One example is in the field of federal air quality mandates. In fact, as the Supreme Court recently held, the Clear Air Act bars the Environmental Protection Agency from considering economic compliance costs in setting certain air quality standards. See Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 486 (2001).

346. See infra note 359 (noting the variety of federal statutes that require a substantive cost-benefit analysis in the promulgation of new administrative regulations).
enhanced patient health protections may be balanced against increased insurance costs, to pick a topical example. But among policymakers and commentators alike, the almost singular focus, in terms of both advisability and execution, is on how a proposed change can correct some perceived problem or otherwise improve the substance of the law.

A recognition of legal transition costs injects a potentially serious distortion into this standard calculus. As I observed at the outset, a parallel phenomenon exists in purely private decisions to switch between commercial products. I noted that the switching costs of doing so can be so great as to counsel against even the adoption of an otherwise superior alternative. Professors Marcel Kahan and Michael Klausner also have expanded these insights to party-generated contract terms. They too have argued that the presence of switching costs may cause transactors not to switch even to a more efficient new term. This is so because internal learning and network benefits associated with established standard terms as well as transitional administrative constraints may make the costs of switching greater than the expected benefits of adopting purportedly superior terms.

In some respects, legal transitions may present an even more challenging problem. Because they are externally imposed by lawmakers, the adoption of new legal norms may be infected by a particularly acute form of fiscal illusion. This term describes the likely tendency of lawmakers to

347. See supra notes 13–14 and accompanying text.
349. See Kahan & Klausner, supra note 15, at 728 (arguing that “[s]witching costs may create pressure for a firm to avoid adopting terms in a new contract that deviate from those in its existing contracts”).
350. More broadly, Professors Kahan and Klausner have suggested that the network and learning externalities associated with established contractual terms may be an impediment to socially optimal contracting. See id. at 729–36.
351. For a discussion of the learning and network benefits of private forms, see supra notes 250–253, 276–283 and accompanying text.
353. As noted in the introduction, the decision by private firms to incorporate in Delaware reflects a parallel phenomenon. See supra note 16 and accompanying text (citing literature on the transaction cost reasons for why Delaware remains the preferred state of incorporation).
354. Powerful interest groups also can influence the content of changes in the law. Although this aspect of the lawmaking process most often is viewed with criticism, see supra note 50 (citing scholarly analyses of interest group public choice theory), concentrated interest groups also may serve as an external constraint on the adoption of new legal norms that may entail substantial legal transition costs. An equal risk exists, however, that these interest groups will exercise their power with regard to the form and structure of new legal norms in such a way as to secure advantages over other affected legal actors. See, e.g., supra note 267 (noting the observations of one commentator that the adjustment costs associated with the recent revision of UCC Article 9 may confer a competitive advantage on large repeat players).
overestimate the benefits and underestimate the costs of new legal norms. And the systemic neglect of this phenomenon has meant that, in contrast to private decisionmaking, there is little incentive for lawmakers to consider the costs of transition in reviewing proposed changes to the law.

Public lawmaking decisions of course involve a broader field of policy considerations than do purely private switching choices. Competing and perhaps incommensurable value judgments also can vary widely, not only among policymakers, but from context to context as well. Moreover, legal transition costs—like the substantive benefits and burdens of proposed legal reforms—are not susceptible to precise, objective determination ex ante. The transitional impact of legal change can be studied, however, and what can be studied can be improved.

My goal in the sections to follow is to frame the debate on an issue that thus far has been largely neglected. As a systemic phenomenon, lawmakers should at a minimum be sensitive to the impact of legal transition costs in weighing proposed changes in the law. A deeper understanding of the dynamics of change also may yield insights on the proper form and structure of reform projects, as well as on the means by which lawmakers might prospectively mitigate the costs associated with transitions in the law.

B. Managing Legal Transitions

1. Transition Costs and the Lawmaking Process

It would appear at first glance that there is at least some awareness among lawmakers of the impact of precipitous changes in the law. Some statutes, for instance, contain formal provisions denominated “transition rules.” These, however, tend to address only technical matters such as effective dates or the validity of actions taken under the old regime (such as filings).

355. See Kaplow, supra note 11, at 567–70 (observing that lawmakers are susceptible to fiscal illusion, in which they tend to overestimate the benefits and underestimate the costs of new legal rules).

356. Cf. Lee, supra note 27, at 658 (noting that the litigation, adjustment, and error costs of departing from precedent “do not lend themselves to precise, objective measurement”).


358. See, e.g., U.C.C. §§ 9-701 to 9-708 (2001) (setting forth the rules for revised Article 9 governing filings and similar actions taken under the former article); Pub. L. No. 105-206,
A number of state and federal statutes also require some form of cost-benefit analysis, most often as a means of regulatory oversight. Although often couched in expansive terms, however, these statutes typically target only the economic costs of complying with the substantive dictates of administrative regulations.

Taken at its broadest level, a recognition of legal transition costs will require that lawmakers and scholars incorporate a broader calculus in advocating changes to the law. Some legal reforms of course will have merit irrespective of the learning, uncertainty, adjustment, and related costs associated with their implementation. But the analysis for others will be more complicated. And some may involve such severe transitional friction as to warrant rejection altogether.

The impact of legal transition costs thus can be arrayed along a spectrum. When the costs of a proposed change are high, lawmakers should place elevated demands on the probability and extent of its substantive benefits in relation to the existing regime. This framework helps to explain why certain reform projects properly are rejected even though they may offer improvements in the law. Consider as an example the perennial calls for a change from an income to a consumption-based tax system. Although lacking the conceptual framework advanced here, a principal ground for the failure of these proposals (whatever their substantive merit) is the substantial transition costs that their adoption would entail.


360. See Hahn, supra note 359, at 912 (noting in the conclusion of a comprehensive review that state and federal efforts to require cost-benefit analyses relate to broader “economic costs” of proposed regulations, with no discussion of legal transition costs in the sense analyzed here).


A sensitivity to legal transition costs counsels similar caution in other circumstances. The first is with innovation in highly stable areas of the law. Even when extant legal solutions may be suboptimal in some way, the risk of compromising the accumulated certainty surrounding the old norms, the learning and adjustment costs involved with the new, and the risk of future error costs might outweigh any purported benefits of a proposed revision. One might explain on this basis the opposition to the comprehensive revisions of the various articles of the Uniform Commercial Code, in particular the pending work on Article 2, as well as the unease of some commentators with the progression of established commercial law into the international dimension. Such considerations suggest an initial preference for targeted revisions over comprehensive overhaul in established fields, whatever defects might exist in the existing regime.

Perhaps paradoxically, a concern about transition costs also yields a cautionary message for the regulation of areas of high instability. If a field is subject to rapid technological or social innovation, the transition costs involved in the adoption of mandatory norms may be substantial. Instability in the target subject matter increases the risk of wasteful legal learning costs—as lawmakers repeatedly reassess transient legal solutions—as well as related uncertainty and private adjustment costs. One might cite as an


363. As I discuss immediately below, legal innovation of course also can serve interests of legal certainty, both by resolving contentious issues and by clearing away existing impediments to beneficial activities. See supra notes 359-374 and accompanying text.


[a]s a whole Article 2 is not broke—I know no one who thinks it is. After a little use, all
codes reveal a few unfortunate turns of phrase, structural inconsistencies, overly idealistic
assumptions, and gaps that cannot reasonably be closed by the statutory language.

Blemishes of that sort never justify revision—because similar problems inevitably show
up in the revisions themselves not long after enactment.

Id.

365. See, e.g., Stephan, supra note 28, at 761-87 (criticizing the process for the creation of international commercial law as well as the content of existing efforts); Walt, supra note 149, at 698-705 (suggesting that excessive novelty may hinder the success of efforts to unify international sales law).

366. Transition cost concerns may not be as serious if the new legal regime is not mandatory in character. Substantial instability in a field increases the likelihood that transactors will incur the costs of private regulation through detailed contractual arrangements (or otherwise withdraw from the market entirely). In such a case, the adoption of default legal rules may not impose substantial transition costs. To the contrary, it may decrease uncertainty costs by establishing a background framework for an evolution of more efficient private formulations in the field.
example comprehensive proposals to regulate the Internet or other legal aspects of electronic commerce and communication.\textsuperscript{367}

Transition cost analysis suggests that similar caution should be exercised for reforms in fields that are already highly regulated. Of particular concern in such circumstances will be the learning costs for comprehensive rule revisions, the risk of uncertainty (including uncertainty regarding interface with related legal regimes), and future private adjustment costs. Complicated legal environments in which multiple jurisdictions or vertically related authorities regulate the same subject raise like transitional concerns. When, for example, a field is subject to comprehensive state, national, and international regulation (in, say, intellectual property law), large-scale reform at any level without careful accommodation is likely to risk severe legal transition costs.\textsuperscript{368}

Legal change of course can be beneficial. Many existing bodies of law, for instance, are themselves highly uncertain or otherwise substantively defective. Moreover, the existing legal costs of a socially desirable activity may be the problem a new body of law is designed to redress. The adoption of new legal norms thus may serve, among other things, to clarify contentious legal problems, simplify excessive complexity, facilitate new and valuable forms of human interaction, and otherwise advance the interests of legal certainty. Among the best examples here is the beneficial role of uniform law in facilitating transjurisdictional interchange.\textsuperscript{369} The very purpose of uniform legal rules is to address the learning costs of gathering reliable information about foreign legal systems,\textsuperscript{370} uncertainties about the content

\textsuperscript{367} One particularly controversial example is the Uniform Computer Information Transactions Act, an attempt at a comprehensive regulation of electronic and computer-generated transactions. See Uniform Computer Information Transactions Act, at http://www.law.upenn.edu/bll/ulc/ulc_frame.htm (last visited Oct. 10, 2001).

\textsuperscript{368} The point about accommodation here is that, as I discuss below, lawmakers can choose to internalize future transition costs through more careful and thorough drafting of new legal norms. See infra notes 375-392 and accompanying text.


\textsuperscript{370} See Charny, supra note 369, at 436 (observing that uniformity across jurisdictions "saves the decisionmakers and transactors the costs of having to develop and learn a multiplicity of rules"); Ribstein & Kobayashi, supra note 369, at 138 (noting that uniform law can decrease information costs).
and choice of applicable law, and the absence of an effective framework for the development of private contractual networks.

The proper role of a sensitivity to legal transition costs, therefore, is as one important input in a reasoned decisionmaking process. Substantive benefit may remain the principal focus in the politics of legal change. As the likely extent of transition costs increases, however, this input suggests that lawmakers should proceed with increasing care in weighing any particular law reform proposal (whether regulatory, deregulatory, or otherwise).

2. Mitigating Legal Transition Costs

Stated briefly, the message of much of the analysis to this point is that the costs of legal change are real and potentially substantial. This does not mean, however, that there is something inherently inefficient about legal innovation. Rather, as we shall see below, lawmakers have at their disposal a variety of means to mitigate transitional friction, even for large-scale or complex legal reforms.

A sensitivity to legal transition costs could manifest itself in two principal ways. The first—which follows on the broader discussion immediately above—is a systemic preference for targeted change over comprehensive reform. In new or highly unstable areas, for example, initiating change carefully and within the framework of the existing legal regime can diminish substantially the likely transition costs. Similarly, when experience with a new field is limited—or when there is significant heterogeneity in

371. See Ribstein & Kobayashi, supra note 369, at 138 (noting that uniform law can decrease “inconsistency costs” and litigation costs); see also David W. Leebron, An Analysis of Harmonization Claims, 10 COLUM. J. ASIAN L. 305, 311-12 (1996) (observing that the harmonization of trade rules can resolve questions of “jurisdictional interface”).

372. See Bruce H. Kobayashi & Larry E. Ribstein, Uniformity, Choice of Law and Software Sales, 8 GEO. MASON L. REV. 261, 273 (1999) (observing that “uniform law can facilitate the development of a repository of judicial decisions and privately developed forms and devices that aid interpretation and application of specific statutory terms”).

373. See Gillette, supra note 110, at 821 (observing that the relative merit of an existing legal norm must involve consideration of the transition costs of adopting a new one); see also Richard A. Posner, Cost-Benefit Analysis: Definition, Justification, and Comment on Conference Papers, 29 J. LEGAL STUD. 1153, 1154 (2000) (arguing that cost-benefit analysis can be a valuable tool as an “input into decision,” even when doubts exist about its normative value).

374. See supra Part I.B (discussing the variety of forms of legal transitions).

375. See supra notes 361-368 and accompanying text.

376. There is strong evidence that Congress systematically fails to address the impact of transition costs (at least with regard to the effect of uncertain statutory provisions) when adopting comprehensive reforms. As Professor Gregory Maggs observed on the basis of a five-year study of Supreme Court statutory interpretation cases, “Congress in several instances seems to have created a large number of idiosyncratic statutory ambiguities by making sweeping reforms of the law without sufficiently contemplating the consequences.” Maggs, supra note 110, at 152.
the regulated community—transition cost concerns might suggest an initial policy preference for flexible standards.377

One might cite as a positive example here the recent federal Electronic Signatures Act.378 Sensitive to its field of rapid technological innovation, the act prefers a minimal and flexible enabling approach over comprehensive regulation. Similarly, recognizing the risk of destabilizing other, established legal regimes, lawmakers carefully carved from its scope those areas already subject to long-standing legal regulation and interpretive precedent.379

As an alternative or partial complement, lawmakers can seek to internalize transition costs ex ante. The ready point here is that increased care in choice and articulation can prospectively mitigate much of the learning, uncertainty, and kindred costs of new legal norms.380 Some good work has already been done on this score.381 And, admittedly, lawmakers often may lack the will to incur the political and transaction costs of precise drafting.382 But it is here that the insights of transition cost analysis may play a significant role. A more enlightened awareness of the tangible costs of undisciplined legal reform should give increased impetus to the perennial calls for more responsible legislative drafting.383

377. To be sure, an initial preference for careful and targeted change may involve a trade-off as against the potential benefits of comprehensive legislative guidance. My suggestion is that in the described situations an attempt at large-scale regulation creates a greater risk of error and instability in the law, and thus a greater likelihood of substantial—or successive rounds of—transition costs.


379. See 15 U.S.C. § 7003 (describing the numerous established bodies of law exempt from the scope of the act).

380. Standard-setting organizations also can internalize transition costs in purely private matters. Private standards can both solve coordination problems and address the learning and uncertainty costs of introducing new standardized formulations. See Kahan & Klausner, supra note 15, at 762 (observing that "to the extent that a standard-setting institution bears the cost of developing a standard contract term, its efforts to avoid formulation error and to educate lawyers, other professionals, and [a given] community provide a subsidy to early-adopting firms").

381. See Maggs, supra note 110, at 133–36 (discussing the efforts of scholars to develop "drafting checklists" for legislators, to "normalize[e] the structure and phrasing of statutes," and to understand the relative merits of rules versus standards in drafting legislation); see also Fed. Courts Study Comm., Report of the Federal Courts Study Committee 89–93 (1990) (recommending the use of detailed legislative checklists as well as the adoption of broad "fallback rules" to govern recurring issues). For more on the rules and standards debate, see infra notes 387–392 and accompanying text.

382. In addition, the "inventiveness of reality" places practical limits on the predictive abilities of lawmakers in any event. See also Konrad Zweigert & Hans-Jürgen Puttfarken, Statutory Interpretation—Civilian Style, 44 TUL. L. REV. 704, 704 (1970) (using this phrase).

383. See Maggs, supra note 110, at 133–36, 154–60 (describing efforts to assist lawmakers in avoiding statutory ambiguities); Fed. Courts Study Comm., supra note 381, at 89–93 (recommending certain legislative drafting techniques to limit interpretive problems for federal courts).
Similarly, transition cost analysis should stimulate greater attention in the introduction of new legal norms to accumulated certainty in a field. Drafters may prospectively mitigate legal transition costs by more carefully addressing—either through express approval or rejection—the experience gained with past legislative enactments and interpretive precedent over time. Increased sensitivity to such costs also should spur lawmakers to consider the interface with related bodies of law, and thereby resolve thorny issues of norm hierarchy before they arise.

The work of the drafters of the Uniform Commercial Code may provide a model here. Through official comments appended to each section, the drafters carefully addressed where the code builds on, and where it rejects, past law. Through the same vehicle the drafters also accommodated the interaction with affiliated legal regimes.

In parallel with these considerations, transition cost analysis also may inform (and benefit from) the enduring debate over the proper balance between rules and standards. Generally, the choice of narrow rules involves ex ante drafting costs, whereas flexible standards tend to impose costs at the point of application. As Louis Kaplow has argued, if a particular norm is to be applied many times to familiar and substantially uniform conduct, a legal system likely is better served by lawmakers bearing the upfront costs of drafting a rule. Viewed in the framework of the present analysis, in such cases the accumulated legal knowledge about a regular, stable activity should permit lawmakers to internalize much of the transi-

384. In doing so, lawmakers address negative uncertainty costs of legal change. See supra notes 172–199 and accompanying text (analyzing the costs that legal change may impose through the loss of the accumulated certainty in the subject field of law).

385. See supra notes 187–190 and accompanying text (discussing the interface resolution costs that may arise from legal change).

386. As a result, the code was able to both reap the benefits of the accumulated certainty of the past and ease the assimilation of its newer or more innovative provisions. See Gregory E. Maggs, Karl Llewellyn’s Fading Imprint on the Jurisprudence of the Uniform Commercial Code, 71 U. COLO. L. REV. 541, 565–66 (2000) (noting that the purpose of the comments was to provide detailed guidance to the courts in applying the code). See generally Robert H. Skilton, Some Comments on the Comments to the Uniform Commercial Code, 1966 WIS. L. REV. 597 (discussing the background and purpose for the code’s official comments).

387. For an introduction to the voluminous literature on the rules versus standards debate, see supra note 26.

388. See Kaplow, supra note 26, at 585–86 (noting that rules involve the costs of governmental acquisition and dissemination of information upfront whereas standards tend to impose such costs at the time of application); see also supra notes 222–231 and accompanying text (analyzing the uncertainty costs associated with crafting new legal norms as rules versus standards).

389. See Kaplow, supra note 26, at 579–86.
tion costs of new legal norms at the drafting stage. In contrast, when insufficient information is available about the covered conduct—such as in new or unstable areas or where substantial heterogeneity exists—standards may be the preferred normative model. Even with standards, however, lawmakers may be able to reduce transition costs at the drafting stage through careful attention to the experience and precedent already accumulated in the field.

Finally, it is important to observe that the impact of transition costs will vary according to the opportunities for exit. For default legal regimes (such as, for example, on most issues of corporate law) the ability of transactors to contract around changes in the law may reduce (though not eliminate) their transitional impact. This may be done either by adopting express agreements to the contrary or by choosing the law of an entirely different jurisdiction. Even with new default legal norms, however, increased sensitivity to learning and adjustment costs may be warranted if the theoretical opportunities for exit are effectively meaningless.

Lawmakers are not required, of course, to incorporate transition cost concerns in their decisionmaking at all. But even for those skeptical of substantive cost-benefit comparisons, there is value in recognizing that

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390. See supra notes 380-386 and accompanying text (suggesting that where substantial legal certainty already exists in a given field, lawmakers may be able to internalize much of the costs of legal transitions through careful drafting).

391. See supra notes 375-377 and accompanying text (suggesting that because of transition cost concerns in such circumstances lawmakers should prefer flexible standards); see also Kaplow, supra note 26, at 617 n.175 (arguing that the choice of flexible standards of imprecise content may be appropriate "to the extent uncertainty concerning application of the law reflects genuine uncertainty about the appropriate content of the law").

392. See supra notes 225-231 and accompanying text (examining the importance of precedent for open-ended standards); see also Kaplow, supra note 26, at 577-79 (observing that over time precedent can transform a standard into a rule).

393. See supra notes 103-109 and accompanying text (noting that transition costs concerns arise even for default legal regimes).

394. Similarly, where exit opportunities exist the presence of legal transition costs may dissipate the value of a body of law designed to facilitate a particular activity. See Walt, supra note 149, at 698 (arguing that excessive innovation in the United Nations convention governing international sales law may encourage transactors to opt-out of its application).

395. See U.C.C. § 1-105(1) (2001) (providing that the parties may agree that the law of another jurisdiction shall govern a transaction otherwise within the scope of the code).

396. An example is in areas where the uniform law movement has been highly successful. In most fields covered by the Uniform Commercial Code, for example, all of the fifty states and the District of Columbia have made their laws nearly identical. The code then invalidates any choice of the law of a foreign jurisdiction unless it bears a "reasonable relation" to the transaction at issue. Id. § 1-105 (setting forth the reasonable relation rule).

transition costs represent a source of friction for any legal change, whatever its normative content. As a result, the prospects for any particular reform project likely will improve with the degree to which it is sensitive to the phenomenon. The failure of the recent workplace ergonomics regulations in large measure may be explained on this basis.\(^{398}\) As this example suggests, the appeal even of a reform of substantial merit will diminish if it does not adequately address the legal costs (and the consequent political resistance) associated with its introduction.\(^{399}\)

3. Transition Cost Analysis and Stare Decisis

There is also an affinity between transition cost analysis and the normative foundation for the doctrine of stare decisis. Deference to precedent imposes impediments to rapid or improvident shifts in the law (whether liberal or conservative\(^{400}\) in nature). Stare decisis thus operates as a built-in stabilizing mechanism. By centralizing authority in higher courts, and by constraining even their situational discretion, the doctrine both enhances legal certainty and minimizes the velocity of change.\(^{401}\) A derivative consequence is that it functions to decrease the aggregate costs that flow from legal transitions.

Seen in this light, there is a natural attraction between the value of deference to precedent and a sensitivity to transition costs.\(^{402}\) As others

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399. Whatever its substantive merit, a principal criticism of the ergonomics regulation—viewed in the framework of the present analysis—was that it involved substantial and long-term legal transition costs. See Albert B. Crenshaw, Fax Attack Helped Kill Ergonomics Regulations, WASH. POST, Mar. 12, 2001, at E3 (quoting the argument of a president of a small business association that “[s]mall business was concerned about the enormous complexity and vagueness [because although the rule goes] on for hundreds of pages, there still were no specific guidelines that an employer could use”); Next Steps on Ergonomics, WASH. POST, Mar. 26, 2001, at A24 (noting that opponents of the regulation asserted “that they did not oppose protecting workers from repetitive stress injuries on the job” and would support an ergonomics rule if it were “better and differently crafted”). The analysis of transitional learning and uncertainty costs in supra Part II provides a framework for understanding these concerns.

400. I use the term “conservative” here in the popular political sense, not in the more precise sense of a preference for the status quo. Many policymakers and commentators described as conservative in fact are advocates for substantial changes in the law, often in order to return the law to legal approaches that were rejected upon adoption of the current status quo.

401. By mandating deference to precedent, stare decisis also creates a disincentive to repeat litigation over an established legal solution as well as to strategic bad faith behavior. See supra notes 232–236 and accompanying text (discussing the likely relationship between legal uncertainty and opportunism).

402. Judge Frank Easterbrook, for one, has highlighted the surprising lack of any effective theory of stare decisis. See Frank H. Easterbrook, Stability and Reliability in Judicial Decisions, 73 CORNELL L. REV. 422, 422 (1988) (lamenting with regard to stare decisis that “no one has a prin-
have recognized, a principal justification for the doctrine of stare decisis is that the systemic benefits of stability in many cases can counsel adherence even to a rule that has become partially outmoded or otherwise substantively inadequate. These commentators thus have argued that courts should be hesitant to overrule an established precedent if the litigation, private adjustment, and similar costs of change are likely to be high.

These analyses fit comfortably within the broader conceptual framework advanced here. Stare decisis also may advance other normative values, and as I have noted costs and benefits do not lend themselves to neat, objectively measurable comparison in any event. But a sensitivity to the legal costs of transition can be a valuable input in a decision on whether, and if so in what circumstances, a court should depart from established precedent. This may be particularly true when the precedent is an essential element in a highly complicated body of related legal norms.

C. The Role of Mediating Institutions

A final step in understanding the costs of legal change is to recognize the means by which a variety of institutions work to ameliorate the impact of new law ex post. Through courts and similar bodies, legal systems provide a public apparatus for fine tuning new legal norms that are coarse or otherwise uncertain. I will refer to these as mediating institutions. As we will see below, the presence of effective mediating institutions can diminish substantially the transition costs associated with the introduction of new law.

In this country, the role of mediating institution traditionally has been played by the courts. Through interpretive decisions, the judiciary can speed clarification and resolve ambiguities in the law. The value of this

ciplied theory to offer"). This may be so in part because of the unclear interaction between the perceived value of any new legal norm and the costs associated with its introduction.

403. See Kornhauser, supra note 258, at 86-89 (analyzing the economic costs of departing from precedent); Lee, supra note 27, at 657-58 (describing the Supreme Court's stare decisis decisions as an effort to minimize the costs of change).

404. See Kornhauser, supra note 258, at 86-89 (analyzing the propriety of stare decisis in light of "adjustment costs"); Lee, supra note 27, at 657-59 (arguing that courts should adhere to precedent when litigation costs, adjustment costs, and error costs are high); see also Lawrence E. Blume & Daniel L. Rubinfeld, The Dynamics of the Legal Process, 11 J. LEGAL STUD. 405, 418 (1982) (concluding that courts should be hesitant to change precedent where the costs of change are high).

405. See supra note 255 and accompanying text.

406. See supra notes 373-374 and accompanying text (arguing that the proper role of transition cost analysis is as an input in a decisionmaking process on legal change).

407. See supra note 179 and accompanying text (discussing the heightened value of legal precedent in a highly complicated body of law).
function is then enhanced by a tradition of thorough, sometimes scholarly, opinions. As I have observed above, by unpacking and adding coherence to the law in this way, courts in effect create public goods.\(^{408}\) Bolstered by the doctrine of stare decisis, the net effect of these public goods is a decrease in societal legal learning and uncertainty costs.\(^{409}\) Moreover, the judiciary often is the only body with the independence and flexibility to correct interpretive and similar legal errors in a timely fashion.\(^{410}\)

More recently, administrative bodies have come to fulfill a similar function. As comprehensive legislative lawmaking placed increasing strains on the efficacy of courts as mediating institutions, legislators began to delegate to administrative bodies the authority to fine-tune the law.\(^{411}\) The net effect, once again, was the creation of an institutional structure designed to mediate the effects of unrefined statutory norms. The Supreme Court’s now-famous decision in *Chevron v. National Resources Defense Council* \(^{412}\) might be seen in the same utilitarian terms. The *Chevron* Court held that interpretive decisions of administrative agencies are entitled to substantial judicial deference.\(^{413}\) In so doing, it enhanced the efficacy of administrative bodies in mitigating the transition costs of legislative law.\(^{414}\)

Each of these structures functions reasonably well within its area of competence. But as legal change continues to accelerate in both frequency and complexity,\(^{415}\) there may be grounds for more critical examination. The rising significance of legal transition costs in our modern polity suggests that lawmakers should consider whether systemic changes might improve the efficacy of these and other mediating institutions. Because transition costs themselves reflect a systemic phenomenon, this subject should provide fertile ground for future scholarly analysis. The above analysis nonetheless permits a variety of initial observations here.

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408. See supra notes 141–143 and accompanying text.
409. The importance of courts as a mediating institution is augmented by a legal education system that continues to regard judicial opinions as the primary vehicle for transferring legal knowledge.
410. See supra notes 295–329 and accompanying text (analyzing the potential error costs of legal change).
411. See supra note 46 (citing prominent examples in which Congress has granted rule-making authority to administrative agencies).
413. See id. at 844 (holding that interpretive decisions of administrative agencies within their fields of delegated expertise are entitled to substantial deference by reviewing courts).
414. Other public and private institutions also operate as informal mediating institutions with regard to the learning costs of new law. See supra notes 144–150 and accompanying text (examining the role of legal scholars and practitioners in disseminating knowledge about the law).
415. See supra notes 39–65 and accompanying text (discussing the "acceleration of law").
Transition cost analysis might first give impetus to critical examinations of our existing court system. In large measure, the present system was structured in an era of slow accretion of common law norms and of a substantially more limited federal role in governance. As a result of federal law expansion into new fields and absorption of matters traditionally left to the states, however, an increasing mass of material has been entrusted to the federal system.

The U.S. Supreme Court, with few exceptions, nonetheless remains the only entity able to provide final, national guidance on the meaning and effect of federal law. As federal law expands, therefore, so too do delays in the definitive, national resolution of intercircuit conflicts, the correction of interpretive errors, and the clarification of other uncertainties in the law. Framed in the present analysis, the result is increased legal transition costs for each change involving federal law. To be sure, a legal system must balance the uncertainty costs of delay with the error costs of haste. But even with a perfectly tailored certiorari policy, practical considerations limit the Supreme Court to a review of only a small number of cases per year (and these often are on issues of constitutional law). In this light, a fuller appreciation of the impact of legal transition costs may give renewed energy to proposals to reform the review process or otherwise introduce new structures to speed national resolution of uncertainties in the law.

416. One notable exception is the U.S. Court of Appeals for the Federal Circuit. For an examination of this model, see infra note 422 and accompanying text.

417. The most significant impact of delay is an increase in uncertainty costs, as the lack of definitive guidance on the content of the law hampers efficient planning and spawns avoidable disputes. See Kaplow, supra note 26, at 614 (suggesting that our present legal system may be deficient because “massive costs of delay in settling the law are regularly incurred” and because of “substantial duplication” of the costs devoted to resolving a legal issue).

418. The question of the efficacy of the present court system is thus broader than the contentious debate over how quickly the Supreme Court should intervene to resolve intercircuit splits. In some cases, concerns about excessive haste may justify some patience while difficult issues percolate in the lower courts. See Maggs, supra note 110, at 131–32 (describing the debate on this issue).

419. For suggestions in this vein, see COMM’N ON REVISION OF THE FED. COURT APPELLATE SYS., STRUCTURE AND INTERNAL PROCEDURES: RECOMMENDATIONS FOR CHANGE, 67 F.R.D. 195 (1975), which published the so-called Hruska Commission Report, criticized the “failure of the federal judicial system to provide adequate capacity for the declaration of national law,” id. at 217, and advocated the creation of a National Court of Appeals; FED. COURTS STUDY COMM., supra note 381, at 126, which proposed legislation authorizing Supreme Court reference of some issues to an en banc panel of a circuit court; and Maggs, supra note 110, at 169–70, which suggested consideration of a system in which federal courts would be required to defer to the first circuit court decision on the interpretation of a statute. See also Hellman, Intercircuit Conflicts, supra note 25, at 248 (lamenting that with the exception of the creation of the Federal Circuit Court of Appeals, “Congress has taken no steps to expand the capacity of the system to resolve issues at the national level”).
Consider then as a comparison point European court systems. Established almost exclusively to interpret and apply legislative law, these systems quickly adopted specialized courts (that is, for example, administrative courts for administrative matters), each with its own independent appellate and supreme court.\(^{420}\) One important consequence is a more expeditious national resolution of contentious issues.\(^{421}\) The United States has followed this model only in limited circumstances—most notably with creation of the U.S. Court of Appeals for the Federal Circuit.\(^{422}\) Transition cost analysis might give support for increased scholarly inquiry into whether this model should be expanded to other fields.\(^{423}\)

Similar utilitarian considerations suggest more active reliance on other forms of mediating institutions and structures. The somewhat controversial\(^{424}\) practice of informal legal guidance by administrative agencies,\(^{425}\) for instance, might find justification in transition cost concerns. For new bodies of law not entrusted to administrative agencies, more extensive use of standing liaison\(^{426}\)

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420. In each of the specialized areas there are local courts, appellate courts, and a separate supreme court (for example, the Supreme Administrative Court or Supreme Civil Court). The decisions of such supreme courts then operate as the definitive national resolution of the legal point at issue, subject only to a review for constitutional conformity by a Supreme Constitutional Court. See Erhard Blankenburg, Patterns of Legal Culture: The Netherlands Compared to Neighboring Germany, 46 AM. J. COMP. L. 1, 37–40 (1998) (discussing the court system in France); Nicolas Marie Kublicki, An Overview of the French Legal System from an American Perspective, 12 B.U. INT'L L.J. 57 (1994) (discussing the court system in Germany).

421. In addition, the expertise developed by the specialized courts over time should reduce public learning and error costs. A likely derivative benefit is a reduction of litigation costs from more efficient administration of disputes.

422. The Federal Circuit has sole appellate authority over certain defined subject matters, such as patent law and claims against the federal government. See 28 U.S.C. § 1295 (2000). With regard to this experiment, see generally Rochelle Cooper Dreyfuss, The Federal Circuit: A Case Study in Specialized Courts, 64 N.Y.U. L. REV. 1 (1989).

423. Cf. D’Amato, supra note 113, at 1 (observing that, even with uniform law, the presence of multiple interpreting institutions without an effective final arbiter may lead to an overall increase in legal uncertainty); Kaplow, supra note 26, at 613–15 (discussing the costs of delay and duplication of litigation efforts that arise in our present court system).


425. See, e.g., 12 C.F.R. § 907.4 (2000) (delineating the authority of the SEC with regard to no-action letters); 26 C.F.R. §§ 1.367(a)–3(c)(9) (2000) (delineating the authority of the IRS with regard to "private letter rulings").

426. A proposal along this line was advanced in April 1990 by the Federal Courts Study Committee, a body created by Congress to propose improvements in the federal court system. See Judicial Improvements and Access to Justice Act, § 102, 28 U.S.C. § 331 (2000). To address the costs of statutory ambiguity, the committee recommended the creation of a new body in the judicial branch identified as the Office of Judicial Impact Assessment. This body would have the authority to review proposed new legislation for potential uncertainties and to inform Congress of interpretive problems that arise in the courts. See FED. COURTS STUDY COMM., supra note 381, at 89–90. For more on the report of the committee, see Maggs, supra note 110, at 154–66.
and oversight commissions\textsuperscript{427} may dissipate transitional friction by identifying prospective problems and monitoring subsequent developments. One might cite the semiofficial Permanent Editorial Board for the Uniform Commercial Code as a generally positive example here.\textsuperscript{428} More common judicial reference to the work of scholarly commentators also should assist in mitigating the learning and uncertainty costs of new law, as the experience with the elaboration of European codes has demonstrated.\textsuperscript{429} Like considerations should spur more extensive study of the value of legislative and judicial metarules of interpretation.\textsuperscript{430}

On a separate track, transition cost concerns suggest that our legal system should not be entirely complacent about the increasing privatization of dispute resolution.\textsuperscript{431} I have noted above the public goods aspect of judicial opinions in reducing the learning, uncertainty, and similar costs of new law.\textsuperscript{432} Private arbitration removes these benefits from the public domain.\textsuperscript{433}

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\textsuperscript{427.} Legislative bodies now extensively engage private commissions in the review and drafting of new statutory regimes. See supra notes 50–56 and accompanying text. Increased awareness of the transition costs associated with new law might counsel more common reliance on expert oversight bodies to monitor the law after adoption.

\textsuperscript{428.} A recent report of the board illustrates its role as a mediating institution. As noted above, the introduction of the revised Article 9 may involve substantial transitional friction. See supra notes 156–160 and accompanying text. To address such concerns, the Permanent Editorial Board disseminated a report on the effect of revised Article 9 during the transitional phase. See Permanent Editorial Board Report, June 13, 2001: Article 9 Perfection Choice of Law Analysis Where Revised Article 9 Is Not in Effect in All States by July 1, 2001 (June 13, 2001), available at http://www.ali-aba.org/ali/peb60l_part1.htm.

\textsuperscript{429.} See INTERPRETING STATUTES: A COMPARATIVE STUDY 474 (D. Neil MacCormick & Robert S. Summers eds., 1991) (noting the valuable role of scholarly analysis in the interpretation of European codes); Bruce W. Frier, Interpreting Codes, 89 MICH. L. REV. 2201, 2205 (1991) (discussing the important interaction “between ‘case law’ (jurisprudence) and academic writing (doctrine)” in the interpretation of the French civil code).

\textsuperscript{430.} See, e.g., William N. Eskridge, Jr., Public Values in Statutory Interpretation, 137 U. PA. L. REV. 1007, 1036–51 (1989) (discussing the value of a variety of metarules, clear statement rules, and presumptions in statutory interpretation); see also FED. COURTS STUDY COMM., supra note 381, at 93 (recommending legislative adoption of “fallback rules” to address recurring issues of statutory interpretation); Maggs, supra note 110, at 158–60, 167–68 (discussing the Study Committee recommendation and separately advocating judicial creation of similar fallback rules).

\textsuperscript{431.} In a variety of recent decisions the Supreme Court has expanded the permissible scope of arbitration. See, e.g., Circuit City Stores, Inc., v. Adams, 532 U.S. 105 (2001) (holding that the Federal Arbitration Act also permits the arbitration of most employment contracts); Green Tree Fin. Corp. v. Randolph, 531 U.S. 79, 81 (2000) (emphasizing the “liberal federal policy favoring arbitration agreements” and holding that arbitration agreements may be enforceable even if they do not allocate the costs of the arbitration (citations omitted)).

\textsuperscript{432.} See supra notes 141–143 and accompanying text.

\textsuperscript{433.} A similar criticism has been leveled at the seeming preference of public court systems for private settlement of public litigation. See Owen M. Fiss, Against Settlement, 93 YALE L.J. 1073, 1085–86 (1984) (observing that settlements can deprive a legal system of the benefits of formal judicial interpretations of disputed legal issues). Some arbitral decisions are made publicly available, and thus also can create public goods regarding the interpretation and application of
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Nonpublic dispute resolution may advance other valid societal interests, but as it continues to expand in both breadth and judicial acceptance, a recognition of the impact of legal transition costs may counsel increased critical attention.

Most aspects of mediating institutions, as the cited subjects illustrate, reflect policy choices. To be sure, public policy and pragmatic considerations will limit the realistic alternatives; and the implications of transition cost analysis will vary with the regulated context and the regulating agency. Nonetheless, the simple message here is that a fuller understanding of the role of mediating institutions may yield valuable insights into how a legal system can more effectively mitigate the costs of legal change, or in some circumstances avoid them altogether.

CONCLUSION

One of the essential measures of a legal system's legitimacy is its ability to respond to progress in the human affairs it regulates. By their basic nature, properly functioning democratic institutions can be expected—subject to certain constitutional constraints—to engage in an almost

law. The common practice of publication of arbitral awards in labor law in the Bureau of National Affairs' Labor Relations Reporter provides a good example.

434. See Steven H. Goldberg, "Wait a Minute. This Is Where I Came in." A Trial Lawyer's Search for Alternative Dispute Resolution, 1997 BYU L. REV. 653, 679-80 (1997) (discussing the advantages of private arbitration over formal public litigation); see also Walt, supra note 149, at 696-97 (noting that private arbitration permits transactors to capture the benefits of novel contract terms, and thereby address the positive learning externality that public litigation would otherwise create).

435. See FOUCHARD, GAILLARD, GOLDMAN ON INTERNATIONAL COMMERCIAL ARBITRATION 189 (Emmanuel Gaillard & John Savage eds., 1999) ("The disclosure of awards is universally considered to contribute to the predictability of results, and the codification of usages by a professional organization will very often be the result of the publication of such decisions."); Christopher B. Kaczmarek, Public Law Deserves Public Justice: Why Public Law Arbitrators Should Be Required to Issue Written, Publishable Opinions, 4 EMPLOYEE RTS. & EMP. POL’Y J. 285, 297-99 (2000) (discussing the advantages of the publication of private arbitral awards).

436. Cf. Kaplow, supra note 26, at 613 (citing the delays, the common preference of courts for narrow rulings, the Supreme Court's certiorari policy, and the limited scope of declaratory judgments, and stating that "most of these features reflect choices rather than inherent features of a legal system").

437. The complicated lawmaking process under the U.S. Constitution and the Bill of Rights place serious limitations on the adoption of law by fleeting majorities. As James Madison observed in the Federalist Papers, one of the core purposes of these aspects of the Constitution was to render the majority "unable to concert and carry into effect schemes of oppression." THE FEDERALIST NO. 10, at 20 (James Madison) (Roy P. Fairfield ed., 1966); see also Vincent Blasi, The Pathological Perspective and the First Amendment, 85 COLUM. L. REV. 449, 453 (1985) (observing that the Constitution was designed as "a force for tempering the shortsightedness and unruleiness of electoral politics ... [and] a check against majority oppression of minorities").
ceaseless process of review for necessary and appropriate adjustments in the law. This should be particularly true in a dynamic and consciously heterogeneous polity.

My objective in this Article has been to fill a gap in our understanding of the dynamics of legal change. The analysis demonstrates that, apart from customary debates about substantive benefits and costs, legal systems will experience friction simply in adjusting to the existence of new legal norms. As a systemic phenomenon, an analysis of these legal transition costs touches upon strands of a variety of debates about the proper form, function, and application of law. What I have attempted here is to pull together these scattered strands and integrate them into a broader analytical framework.

The first essential element in this framework is a recognition that the learning, uncertainty, adjustment, and kindred costs of legal change are real and potentially substantial. Admittedly, these costs are not susceptible to neat, objective quantification ex ante. But along with substantive public policy considerations—the expected societal benefits of new legal solutions, the degree of ossification in existing ones, and so on—a sensitivity to legal transition costs should be a valuable, perhaps necessary, input in a reasoned decisionmaking process on proposed legal reforms.

The more important, positive implication of transition cost analysis lies in its role in facilitating the assimilation of new legal norms. Recognition of the tangible effects of undisciplined legal change underscores for lawmakers the importance of the available drafting and implementation techniques that can mitigate transitional friction before it arises. A more enlightened awareness of the impact of transition costs thus should ease both the adoption and acceptance of new law.

More broadly, transition cost considerations may warrant enhanced critical examination of what I have referred to here as mediating institutions. A deeper understanding of the role of courts, agencies, and similar institutions should yield insights into how a legal system can more effectively ameliorate the transitional impact of changes in the law. I have advanced a variety of primary observations on this score. The systemic nature of legal transition costs also should make this subject a rich field for further scholarly analysis.

"Th[e] search for static security—in the law and elsewhere—is misguided. The fact is that security can only be achieved through constant change...." 438 As Justice William O. Douglas's insightful words make clear, there is not an inherent antagonism between legal innovation and a

438. WILLIAM O. DOUGLAS, STARE DECISIS 7 (1949).
respect for the values of certainty and stability. The core message of the analysis here is that a failure to appreciate the legal costs of change nonetheless may make the law less effective and less responsive, and ultimately compromise the value of otherwise beneficial legal reforms.