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THE INSTITUTIONAL DYNAMICS OF TRANSITION RELIEF

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Whether and how to provide transition relief from a change in legal regime is a question of critical importance. Legislatures and agencies effect changes to the law constantly, and affected private actors often seek relief from those changes, at least in the short term. Scholarship on transition relief therefore has focused almost entirely on examining when transition relief might be justified and now recognizes that there may be settings where relief from legal transitions is appropriate. Yet largely absent from these treatments is an answer to the question of which institutional actor is best positioned to decide when legal transition relief is appropriate and what form it should assume. In this Article, we address this issue in two parts: Can the private market develop adequate risk-spreading devices such that government relief is unnecessary? If government relief is warranted, what government actors are best suited to provide relief? We find that private markets will be unable to provide adequate transition insurance due to insurmountable pricing difficulties, and that the task must thus fall to governmental actors. We then analyze the available governmental actors and conclude that, in many cases, an independent agency will be best positioned to make reliable and welfare-enhancing decisions regarding transition relief.

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INTRODUCTION

In this Article, we consider which type of institution should provide legal transition relief and analyze the form that it should take. These questions are of great importance because the issue of legal transition relief—whether and how an institution should compensate parties because a change in the law adversely affects them—arises any time a new legal regime would render illegal behavior that societal actors previously have engaged in legally.¹ Relief from the legal transition can assume many forms. Transition relief may allow societal actors already engaging in the behavior in question to continue to do so (at least to some degree) on a going-forward basis—often called “grandfathering.”² Or, it may offer them some form of monetary or other compensation for the loss of that ability. Transition relief can benefit—and, conversely, its absence can harm—producers, consumers, employees, and investors. To mention just two contemporary examples, both greenhouse gas regulation (at both the domestic and international levels)³ and efforts to rein in executive compen-

¹ Transition relief, when provided by the government, usually has assumed the form of “grandfathering” preexisting behavior or compensating for its discontinuation. *See, e.g.*, Louis Kaplow, *Transition Policy: A Conceptual Framework*, 13 J. CONTEMP. LEGAL ISSUES 161, 163 (2003) [hereinafter Kaplow, *Transition Policy*] (“[A] variety of transition provisions can be implemented, including partial or full compensation of losses and taxation of gains, grandfathering, phase-ins, and so forth.”); *cf.* Jacob E. Gersen & Eric A. Posner, *Timing Rules and Legal Institutions*, 121 HARV. L. REV. 543, 584 (2007) (arguing that “Delay Rules” provide partial compensation alternative to generally assumed choice between “just compensation” and “no compensation”). This is not always the case, however. On occasion, the government grants a firm or industry valuable new rights at the same time that it imposes costly regulation—a type of regulatory tradeoff. The Hatch-Waxman Act, which established the modern regulatory regime concerning general pharmaceutical drugs, is an example of this type of regime. Pub. L. No. 98-417, 98 Stat. 1585 (codified as amended in scattered sections of 15, 21, 35, and 42 U.S.C.); *see also* Henry Grabowski, *Patents and New Product Development in the Pharmaceutical and Biotechnology Industries*, 8 GEO. PUB. POL’Y REV., Spring 2003, at 7, 11–14 (describing tradeoffs involved in statutory scheme). The arguments that we offer regarding transition relief apply equally to all types of government-provided relief, and so, in the Sections that follow, we discuss transition relief generally, with occasional references to particular grandfathering regimes for purposes of explication.

² *See, e.g.*, Jonathan Remy Nash & Richard L. Revesz, *Grandfathering and Environmental Regulation: The Law and Economics of New Source Review*, 101 NW. U. L. REV. 1677, 1678 (2007) (discussing grandfathering of pollution sources under Clean Air Act of 1970).

³ *See, e.g.*, Eric A. Posner & Cass R. Sunstein, *Should Greenhouse Gas Permits Be Allocated on a Per Capita Basis?*, 97 CAL. L. REV. 51, 57–65 (2009) (highlighting unique issues associated with allocating greenhouse gas emissions permits at international level); Robert N. Stavins, *A Meaningful U.S. Cap-and-Trade System To Address Climate Change*, 32 HARV. ENVTL. L. REV. 293, 320–21 (2008) (proposing system that both auctions and grandfathers permits, with grandfathering phased out over time).

sation at major financial corporations spark questions of transition relief.⁴

For many years, the traditional law and economics literature advocated strongly against legal transition relief. Led most prominently by Louis Kaplow, scholars argued that we should treat legal transitions no differently from other types of transitions faced by societal actors.⁵ Societal actors typically receive no aid from the government with respect to changes in technology or the economy. Similarly, the argument went, the government should not offer legal transition relief to private parties.⁶ Recent commentary, however, questions the scope of Kaplow's claim. Scholars have pointed out that considerations of efficiency, incentives for socially desirable investments, governmental legitimacy, and fairness might justify legal transition relief.⁷

While these discussions are important, we identify two centrally important questions for which scholars have yet to find satisfactory answers. First, while societal actors often hedge against transitions in technology and the economy by obtaining insurance in the private market, such a market does not exist with respect to legal transitions. We consider why such an insurance market has failed to develop.

⁴ See, e.g., Stephen Labaton & Eric Dash, *Huge Bonus Hangs over Pay Review*, N.Y. TIMES, Aug. 13, 2009, at B1 (reporting Citibank's argument that compensation it owes to trader is exempt from federal review on ground that "it is part of a contract signed before the law establishing the review system was passed").

⁵ E.g., Louis Kaplow, *An Economic Analysis of Legal Transitions*, 99 HARV. L. REV. 509, 533–36 (1986) [hereinafter Kaplow, *Legal Transitions*] (asserting that natural disasters and government-created risks are analogous); Kaplow, *Transition Policy*, *supra* note 1, at 176–77, 179 (same).

⁶ Kaplow, *Legal Transitions*, *supra* note 5, at 528–31.

⁷ See, e.g., Lawrence Blume & Daniel L. Rubinfeld, *Compensation for Takings: An Economic Analysis*, 72 CAL. L. REV. 569, 582–99 (1984) (contending absence of private insurance against government action may necessitate compensation for government takings in order to minimize suboptimally low investments); Kyle D. Logue, *Tax Transitions, Opportunistic Retroactivity, and the Benefits of Government Precommitment*, 94 MICH. L. REV. 1129, 1138–43 (1996) (arguing that without transition relief, tax incentives may become more expensive to government); Jonathan Masur, *Judicial Deference and the Credibility of Agency Commitments*, 60 VAND. L. REV. 1021, 1025, 1041–47 (2007) (asserting transition relief may be appropriate to induce actors to undertake socially desirable voluntary projects); Jonathan Remy Nash, *Allocation and Uncertainty: Strategic Responses to Environmental Grandfathering*, 36 ECOLOGY L.Q. 809, 831, 833–34 (2009) [hereinafter Nash, *Allocation and Uncertainty*] (arguing that transition relief occasionally may enhance government legitimacy); Nash & Revesz, *supra* note 2, at 1727–28, 1730–32 (noting that limited transition relief might be justified on grounds of investment efficiency and fairness); Steven Shavell, *On Optimal Legal Change, Past Behavior, and Grandfathering*, 37 J. LEGAL STUD. 37, 44–50 (2008) (advocating transition relief where social costs of transition relief's absence outweigh social costs of transition relief); cf. Saul Levmore, *Changes, Anticipations, and Reparations*, 99 COLUM. L. REV. 1657, 1665–66 (1999) (describing transition relief as way to compensate politically powerful interests who otherwise would stand to lose under, and therefore would oppose, new legal regime).

Second, commentators who advocate transition relief in limited circumstances⁸ do not confront the critical question of what institutional structure is best designed to ensure that transition relief is meted out only where justified and in an appropriately limited form.

This Article addresses these shortcomings. First, we undertake a careful examination of the potential for a private market for legal transition insurance. We conclude that this potential is indeed rather low, but we also argue that most of the accepted explanations for the absence of such a market are not plausible. The major impediment to a private market for legal transition insurance is the chore of pricing. While this conclusion ultimately supports the view that a private insurance market is unlikely to arise in the short term, it also suggests that a functioning market is not the pipe dream that many have thought it to be. It is conceivable that information and derivative markets might facilitate pricing for insurers. In the end, however, we remain doubtful that information markets robust enough to sustain a functioning private insurance market can arise.

Concluding that the likelihood of an imminent private market solution to the problem of legal transitions is low, we turn to the question of which institutional structure is best suited to governmental provision of transition relief. The key to our solution is the disaggregation of transition relief into various steps and the allocation of individual duties based on institutional competency. Specifically, we argue that there are many circumstances in which we might appropriately leave the general decision whether to allow for any transition relief to the legislature, while an independent agency might best make decisions as to the form of transition relief and its allocation among competing claimants. This solution maintains legislative input on questions related to legitimacy and fairness while diminishing the opportunity of some actors to seek rents via political lobbying.⁹

This Article proceeds as follows. Part I provides an overview of the existing literature. It discusses the prior general law and economics proscription against legal transition relief and then canvasses

⁸ See, e.g., Nash & Revesz, *supra* note 2, at 1727–28 (advocating limiting transition relief to actors who invest in advanced control technology ahead of legal requirements).

⁹ We note at the outset that we are not concerned here with every conceivable type of regulation that a legislature or agency might implement. Our focus is on economic regulations of all types—environmental protections, workplace safety laws, food quality regulations, etc. We place to the side all strictly “social” regulation, such as rules regarding marriage or abortion. Issues stemming from California’s recent prohibition on same-sex marriage after its prior legalization, for instance, are beyond the scope of this Article. While we recognize that the line between these two categories may not be entirely clean or precise, we will generally focus on only those types of regulations that money alone can compensate.

various commentators' justifications for limited legal transition relief. We hasten to note that in describing the potential welfare benefits of transition relief we rely entirely on this prior work. We premise our argument on the notion that in certain circumstances transition relief can be beneficial, and we do not intend to reargue that point here. Part II examines the absence of a private market in insurance against the risks of legal transitions and finds pricing to be the largest impediment. Part III analyzes whether information and derivatives markets could aid in solving these pricing problems, and it concludes that such markets are unlikely to be of sufficient help. Finally, having concluded that no private market for regulatory insurance is likely to develop, we turn our attention in Part IV to the question of which institutions might be best situated to decide whether and how to issue transition relief. We argue that an independent agency should play a larger role in providing transition relief. In particular, such an agency should have a say as to the form of transition relief and should generally handle its allocation.

I

THE TRADITIONAL LAW AND ECONOMICS VIEW OF LEGAL TRANSITION RELIEF

In this Part, we present the existing law and economics literature on relief from legal transitions. First, we describe the general proscription against such relief as expounded by Louis Kaplow. Second, we discuss the growing recognition that transition relief can be socially beneficial in particular circumstances. Third, we survey the basic arguments for and against private and public providers of transition relief. We wish to emphasize that we intend to break no new ground in describing the arguments favoring transition relief in limited circumstances. We rely entirely on the arguments that exist in the literature, which we find largely persuasive.

A. *The Standard Treatment of Transition Relief*

The seminal treatment of transition relief is Louis Kaplow's 1986 article on the subject.¹⁰ In that article, Kaplow argued that relief from legal transitions was essentially never justified on a welfare basis. He grounded his argument on an analogy between legal regime changes and other types of changes that actors in society may face, such as

¹⁰ Kaplow, *Legal Transitions*, *supra* note 5.

economic and technological transitions and changes to health status.¹¹ The government does not ordinarily provide relief to actors that suffer as a result of economic or technological change and, Kaplow argued, the government should treat legal regime transitions no differently from economic and technological changes.¹²

Indeed, classical law and economics approaches imply that transition relief can be socially unproductive. The absence of government-provided relief encourages societal actors to act efficiently and to plan in anticipation of possible economic and technological changes.¹³ Were the government to provide legal regime transition relief, societal actors might be discouraged from anticipating looming changes in the law. Because efficiency considerations suggest that the law should encourage societal actors to anticipate such changes, Kaplow concluded that legal regime transition relief is generally normatively undesirable.¹⁴

At the outset, it is important to note that Kaplow's argument depends to some extent on the availability of private insurance for legal transitions.¹⁵ One way that societal actors can anticipate and guard against the risks of economic and social transitions is to purchase insurance against those risks; Kaplow anticipates that societal actors should also be free to guard against the risks of legal transitions by purchasing insurance against *those* risks.¹⁶ Yet, on this score, the analogy between social or economic changes and legal transitions falls short: While as a general matter markets exist for private insur-

¹¹ *Id.* at 533–36; see also DANIEL SHAVIRO, WHEN RULES CHANGE: AN ECONOMIC AND POLITICAL ANALYSIS OF TRANSITION RELIEF AND RETROACTIVITY 27–32 (2000) (discussing incentive effects on societal actors of ex ante likely direction of rule change).

¹² *E.g.*, Kaplow, *Legal Transitions*, *supra* note 5, at 533–36.

¹³ *Id.* at 528–31.

¹⁴ *Id.* With respect to policy-based changes in the law, Daniel Shaviro argues that it might be optimal both to compensate those who stand to lose under a new legal regime and also to seek compensation from those who stand to gain. SHAVIRO, *supra* note 11, at 99–100. He recognizes, however, that the political reality is that those who stand to lose are much more likely to obtain compensation than are those who stand to gain likely to be compelled to surrender it. *Id.* at 100–01. Given this asymmetry, he concludes that the better norm is to deny transition relief across the board. *Id.* at 101. For a discussion of Shaviro's view with respect to non-policy-based legal changes, see *infra* note 42 and accompanying text.

¹⁵ See Kaplow, *Transition Policy*, *supra* note 1, at 178–86 (predicting greater efficiency from private insurance scheme than from transition relief).

¹⁶ See, *e.g.*, Kaplow, *Legal Transitions*, *supra* note 5, at 527–28 (“Insurance is one of the more common techniques for mitigating risk . . .”).

ance against economic downturns,¹⁷ similar markets do not exist for private insurance against legal transitions.¹⁸

This dissimilarity poses a significant puzzle: Why have private insurance markets for legal transitions failed to arise? We take up this question, as well as the subsidiary issue of whether government might be able to foster the growth of such a market,¹⁹ in Part II. In addition, the absence of private insurance provides a first justification for some type of government-supplied transition relief. The fact that private insurance is often available as a hedge against economic change, but not against legal change, suggests that government-provided transition relief should, if anything, be *more common* in the setting of legal transitions.²⁰

B. *Carveouts to the General Proscription: The Argument for Transition Relief*

The absence of private insurance aside, a number of commentators working within the basic logic of Kaplow's argument have advanced theories of limited situations in which legal transition relief might be justified. We group these arguments into five broad categories: (1) concerns of efficiency; (2) promotion of socially productive investment; (3) political necessity; (4) enhancement of governmental legitimacy; and (5) concerns of fairness. We canvass these in turn.

First, transition relief may be necessary to further efficiency. Steven Shavell has explained broadly that there are circumstances where the social costs of the absence of transition relief outweigh the social costs of transition relief itself.²¹ Where investments for compliance are durable, the costs that a firm faces to comply with a new legal rule immediately upon its enactment—by, for example, retrofitting its factory—may far outweigh the marginal benefit gained.²² Shavell also

¹⁷ In addition to private insurance, some actors are able to hedge against future economic change using futures contracts. See, e.g., Eric J. Pan, *Single Stock Futures and Cross-border Access for U.S. Investors*, 14 STAN. J.L. BUS. & FIN. 221, 239 (2008) ("Futures contracts are used to lock in the price of assets in the future to protect the investor from adverse changes in the spot market price of the asset.").

¹⁸ See Blume & Rubinfeld, *supra* note 7, at 592–97 (explaining absence of private insurance markets against legal change).

¹⁹ See Kaplow, *Legal Transitions*, *supra* note 5, at 545 n.99 (noting possibility of government support of private insurance).

²⁰ This is not to suggest that, normatively, the absence of an insurance market should mandate transition relief. We mean only to suggest that the analogy between the settings is not so clear, and also that, as a positive matter, transition relief might be more common than government mitigation of natural social and economic change given the absence of a private insurance market for regulatory change.

²¹ Shavell, *supra* note 7, at 38.

²² *Id.* at 38–39.

argues that the costs of administering transition relief may justify delaying legal transitions: Where legal change is inefficient without transition relief, and where the costs of distinguishing between those who should enjoy relief and those who should not outweigh the benefits of offering any relief at all, the change should be delayed until it becomes efficient with no transition relief.²³

Second, policymakers may harness transition relief to encourage socially productive investment. There are several ways that this investment may manifest itself. We have each separately advanced arguments along these lines,²⁴ as have Kyle Logue²⁵ and Lawrence Blume and Daniel Rubinfeld.²⁶

Masur has explained that the availability of transition relief may induce actors to undertake voluntary projects. Consider that some societal actors may decide whether to undertake a project or investment depending upon whether they can expect the government to stand by the current legal regime.²⁷ On this basis, avenues should be available for government agencies to commit to the status quo on at least a limited basis.²⁸ The decision to do this should lie with the relevant government agency; presumably, an agency would opt to commit only to the extent that the societal benefits of such commitment outweighed its costs.

Nash and Richard Revesz have explained that efficiency may justify grandfathering existing investments for some reasonable time period in compliance with an old environmental legal regime:

One might argue that the incentive to anticipate legal change can be excessive in some cases. For example, an actor who foresees a change in technology and installs that technology might find that technology was about to advance again. Depending upon the cost of replacing old equipment with new and the rate at which technology is advancing, plant owners might rationally decide that it is too

²³ *Id.* at 39.

²⁴ See Masur, *supra* note 7, at 1041–47 (arguing that vulnerability to legal transitions may discourage investment); Nash & Revesz, *supra* note 2, at 1727–28 (noting that limited transition relief might be justified on grounds of investment efficiency).

²⁵ See Logue, *supra* note 7, at 1138–43 (arguing that without transition relief, tax incentives may become more expensive to government).

²⁶ See Blume & Rubinfeld, *supra* note 7, at 582–99 (contending that absence of private insurance against government action may necessitate compensation for government takings in order to minimize suboptimally low investments).

²⁷ Masur, *supra* note 7, at 1041–47.

²⁸ *Id.* at 1025; see also Christopher Serkin, *Entrenching Environmentalism: Private Conservation Easements over Public Land*, U. CHI. L. REV. (forthcoming 2010), available at <http://ssrn.com/abstract=1474288> (arguing that legislative entrenchment of preexisting private law might be proper in some circumstances, but only if appropriately limited).

costly to comply with all technological changes, even ones that they anticipate.

To remedy this situation, grandfathering may be desirable where precautionary investments are “durable” for some period of time, and especially where the cost of including pollution control technology in new plants is far less than the cost of installing such technology in existing plants.²⁹

Along similar lines, the large expenses generally associated with environmental regulatory compliance might discourage actors from voluntarily complying with impending regulation absent some assurance that a subsequent tightening of the regulatory standard would not soon render that investment obsolete. Once again, transition relief would be normatively desirable to the extent that it fostered the sizeable investments necessary to comply with existing legal regulation. Thus, for example, time-limited transition relief might be necessary in some situations to encourage welfare-enhancing investments.³⁰

Logue has argued that transition relief may protect the law’s ability to influence behavior. For example, Congress has at times attempted to alter taxpayers’ behavior using the tax code.³¹ For such so-called “incentive subsidies” to be effective, either taxpayers must be able to rely on the government’s commitment to retain those incentives or the government must offer greater subsidies to produce the same effect.³² Blume and Rubinfeld focus on compensation for takings³³ as an example of transition relief that encourages owners to undertake investments with respect to their property. They explain that the absence of private insurance against government action may necessitate compensation for government takings in order to minimize suboptimal investments.³⁴

A third justification for transition relief may stem from political necessity. Under Saul Levmore’s reasoning, Kaplow’s description of the nature of legal regime change paints a false choice.³⁵ Kaplow assumes that there can be a state of the world under a new legal regime without transition relief—call this state of the world *N*—and that state *N* is preferable to the status quo (state *S*). But it may be that state *N* is not attainable: Those who stand to lose in the transition

²⁹ Nash & Revesz, *supra* note 2, at 1727–28 (footnotes omitted).

³⁰ *Id.*; cf. Masur, *supra* note 7, at 1043 (noting that actors may avoid investments in absence of commitment to regulatory stability).

³¹ Logue, *supra* note 7, at 1138–39.

³² *Id.* at 1139.

³³ See generally U.S. CONST. amend. V (prohibiting taking of private property “for public use, without just compensation”).

³⁴ Blume & Rubinfeld, *supra* note 7, at 582–99.

³⁵ Levmore, *supra* note 7, at 1665–66.

from *S* to *N* may have enough political power to block that transition. They may demand and extract transition relief in exchange for allowing the new legal regime to be enacted. If that is true, then state *N* may not be a viable, attainable choice. Even if state *N* would be preferable to a state of the world where the new legal regime obtains but transition relief has been granted (call this state *N'*), the actual choice lies not between state *S* and state *N*, but rather between state *S* and state *N'*. If that is so, transition relief is normatively desirable so long as state *N'* is preferable to state *S* because transition relief will facilitate the attainment of this new legal regime. Without transition relief, the status quo *S* will remain entrenched.³⁶

Fourth, as Nash has explained elsewhere, the goal of maintaining governmental legitimacy may justify transition relief.³⁷ The absence of transition relief may generate externalities and impose costs on parties not directly affected by the transition.³⁸ Social norms may also dictate some transition relief.³⁹

Fairness concerns provide a fifth and final possible justification for transition relief:

[O]ne can argue that it is unfair to require actors who have invested in an upgrade before a new regulation takes effect to once again undertake costly compliance with a new standard. Thus, like considerations involving incentive effects, concerns of fairness may justify extending protection to societal actors who invest before a regulation takes effect for some reasonable period of time.⁴⁰

It may also be unfair to deny transition relief to a party that truly could not have anticipated the legal change. Logue notes that not all of the arguments for withholding transition relief from corporations apply with respect to individuals, implying that unsophisticated parties should receive relief more regularly than sophisticated ones.⁴¹ Daniel Shaviro makes a similar argument about non-policy-based legal changes, such as changes to the accounting rules under the tax laws. Insofar as these types of changes have less valence, they are more in the nature of housekeeping and much less predictable. Accordingly,

³⁶ *Id.*

³⁷ Nash, *Allocation and Uncertainty*, *supra* note 7, at 831, 833–34.

³⁸ *Id.* at 834 (suggesting that avoidance of externalities justified government relief to financial sector in recent economic crisis).

³⁹ *Id.* (arguing that transition relief may be justified “to protect lifestyles and community cohesion”).

⁴⁰ Nash & Revesz, *supra* note 2, at 1730–31 (footnote omitted).

⁴¹ See Kyle D. Logue, *Legal Transitions, Rational Expectations, and Legal Progress*, 13 J. CONTEMP. LEGAL ISSUES 211, 213 (2003) (noting that “competitive, evolutionary pressures” that make corporations likely to anticipate risks do not apply to individuals).

we should be more likely to afford transition relief with respect to them.⁴²

These justifications for transition relief fall into three general categories: justifications based on the notion that transition relief is economically beneficial on its own merits (rationales 1 and 2); a justification based on the idea that the new, superior legal regime is unattainable without the provision of transition relief (rationale 3); and justifications based on fairness or legitimacy (rationales 4 and 5). For ease of explication we will refer to the first category as the “economic” rationales for transition relief, the second category as the “political” rationale, and the third category as the “legitimacy” rationales. The distinctions among these three categories will be significant to the analysis in Part IV.

We believe that these scholars have successfully established the desirability of transition relief, at least in particular circumstances. For the balance of this Article, we put aside the question of whether transition relief is ever justified, treating it as a premise of our inquiry. That is not to say, of course, that it should become the norm in legal regime shifts. Transition relief will, we hope, remain quite rare. The question that remains is who should provide that relief when it is warranted.

C. *Private and Public Provision of Transition Relief*

The commentators who argue for government-provided legal transition relief generally assume that private insurance will not be available to fill the gap left in the absence of such relief.⁴³ Were private insurance available, it might help to address many of the identified problems. A market for private insurance against legal transitions presumably would provide assurance for continued investments in the face of legal uncertainty without actually requiring legal transition relief.⁴⁴ The availability of insurance might also ameliorate the polit-

⁴² SHAVIRO, *supra* note 11, at 101–03.

⁴³ See, e.g., Blume & Rubinfeld, *supra* note 7, at 572 (“Although one might expect investors to avoid the costs associated with risk by obtaining insurance in the private market, such insurance is not available because of market failure.”).

⁴⁴ Investors might well prefer that publicly owned and traded companies operate neutrally with respect to risk. An investor can hedge risk on her own simply by assembling a diverse portfolio of assets. In reality, of course, agency costs within firms often lead them to behave in risk-averse fashion. Executives seeking to protect their jobs will avoid risky behavior, even at the expense of lower expected net returns. See William W. Bratton, Jr., *Corporate Debt Relationships: Legal Theory in a Time of Restructuring*, 1989 DUKE L.J. 92, 128 n.163 (describing management’s risk aversion due to its “undiversifiable investment in human capital”); Reinier H. Kraakman, *Corporate Liability Strategies and the Costs of Legal Controls*, 93 YALE L.J. 857, 864 (1984) (noting that market pressures are unlikely to overcome top management’s aversion to risk). This risk-averse behavior makes regulatory

ical argument for legal transition relief: If the putative losers under a new legal regime would have their losses covered by private insurance, those parties would have reduced incentives to obstruct the new legal regime.⁴⁵ It might also mitigate fairness concerns.⁴⁶ The availability of private insurance, however, would not be a panacea. It would only lessen the concerns described above, not eliminate them, because the “recipients” of transition relief would be forced to pay for it to some degree through insurance premiums. It would also do little to cure inefficiencies related to transition costs (rationale 1) or shortfalls in governmental legitimacy (rationale 5).

At the same time, private insurance seems quite attractive when compared with the governmental alternative, at least on its face. A private insurance market would likely be superior to the government at assembling the information and processes necessary to arrive at the optimal level of transition relief—that is, the level at which the marginal benefit of additional transition relief equals its cost.⁴⁷ To be sure, a government actor may in many cases be better able to anticipate what regulations the government is on the verge of issuing. This will not always be true, however. Individual government actors may not be aware of what other governmental actors want or plan. Profit may also motivate private insurance companies to gather and aggregate that information, even if it is not as immediately available to them.

Even if government actors are better positioned to know what government regulations are impending, they are not as well positioned to assess how those regulations might impact prospective regulated

(or other) insurance potentially socially valuable even for publicly traded firms with diversified owners, which otherwise might manage risk effectively on their own.

There may also be some risks small enough to allow large firms to self-insure (i.e., absorb the risk and count on the firm’s large size to protect it against significant shocks). However, for smaller firms most regulatory risks will be too large to permit self-insurance; and some regulatory events—major carbon taxes, for instance—may be so significant that even large firms cannot self-insure. There are thus many contexts in which self-interested firm executives would pursue outside insurance.

⁴⁵ See Kaplow, *Transition Policy*, *supra* note 1, at 197–98 (noting that compensation for preexisting interests may reduce or eliminate resistance of those who otherwise would stand to lose under new legal regime and that “private insurance may also produce a similar effect”).

⁴⁶ If parties did not know in advance whether they would be winners or losers under a new legal regime, they would all elect to insure, leaving them in similar positions once the new regime was implemented. *But see* William A. Fischel & Perry Shapiro, *Takings, Insurance, and Michelman: Comments on Economic Interpretations of “Just Compensation” Law*, 17 J. LEGAL STUD. 269, 282–83 (1988) (discussing how insurance against takings would not cover demoralization costs—that is, negative feelings about government that result from exercise of eminent domain).

⁴⁷ Cf. Jonathan Remy Nash, *Framing Effects and Regulatory Choice*, 82 NOTRE DAME L. REV. 313, 340 (2006) (describing “optimal level of pollution” analogously).

entities.⁴⁸ In this regard, government lacks the information and incentives to select the optimal level of relief.⁴⁹ Suboptimal choices in setting the amount of relief—whether too little or too much—will lead to distortions in behavior and ultimately to inefficient outcomes. In contrast, a private insurance market is designed to respond to price signals and thus is likely to arrive at close to that optimal level (although it will not succeed when social benefits and costs differ from private benefits and costs).⁵⁰

Leaving aside informational shortcomings, a second problem of government provision of transition relief involves the government's likelihood of falling prey to those who seek transition relief and consequently meting out too much relief. Government is susceptible to interest group pressure from potential recipients, and transition relief will likely be valuable enough to spur societal actors to apply pressure. Transition relief is a likely subject of lobbying: "The clearer it is who the winners and losers will be, the more intense the lobbying and the

⁴⁸ See Bradley C. Karkkainen, *Bottlenecks and Baselines: Tackling Information Deficits in Environmental Regulation*, 86 TEX. L. REV. 1409, 1413–15 (2008) (detailing information deficits faced by government agencies in evaluating environmental regulatory decisions).

⁴⁹ Cf. Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333, 1342–43 (1985) (arguing that implementation of marketable pollution emission allowance scheme in place of environmental command-and-control regulation "would immediately eliminate most of the information-processing tasks that are presently overwhelming the federal and state bureaucracies" and "[i]nstead of giving the job of economic and technological assessment to bureaucrats, . . . would put the information-processing burden precisely where it belongs: upon business managers and engineers who are in the best position to figure out how to cut back on their plants' pollution costs").

Some commentators laud the notion of Congress setting the level of pollution under a cap-and-trade regime. See, e.g., *id.* at 1353 (noting regime's advantages over command-and-control policies); Cass R. Sunstein, *Administrative Substance*, 1991 DUKE L.J. 607, 636 [hereinafter Sunstein, *Administrative Substance*] (observing that one benefit of cap-and-trade system as compared to command-and-control regulation is that cap-and-trade systems put political and public focus on how much pollution will be allowed); Cass R. Sunstein, *Democratizing America Through Law*, 25 SUFFOLK U. L. REV. 949, 967 (1991) [hereinafter Sunstein, *Democratizing America*] (same). This argument is made, however, in the context of "democratizing" the development of environmental law by focusing attention on an issue that the public can easily digest, not on the idea that in fact government is by design more likely than a private market to arrive at an "optimal" level of pollution. See Jonathan Remy Nash, *Too Much Market? Conflict Between Tradable Pollution Allowances and the "Polluter Pays" Principle*, 24 HARV. ENVTL. L. REV. 465, 525 n.224 (2000) (noting possibility that democratically determined pollution cap might differ from optimal level of pollution).

⁵⁰ See Kenneth S. Abraham & Lance Liebman, *Private Insurance, Social Insurance, and Tort Reform: Toward a New Vision of Compensation for Illness and Injury*, 93 COLUM. L. REV. 75, 106–07 (1993) (discussing differences between social insurance and private insurance in context of tort reform); Abraham Bell & Gideon Parchomovsky, *Takings Reassessed*, 87 VA. L. REV. 277, 309 (2001) (describing how private insurance would not be perfect substitute for takings liability because it does not cover demoralization costs suffered by society when government takes property).

greater danger of legislation emerging that caters to the interests of powerful incumbents.”⁵¹ A captured governmental body will not generate transition relief that is socially desirable; rather, it will deliver relief to the actors who have “captured” the agency.⁵² And even if the government is not fully captured by special interests, it will still be subject to lobbying by those interest groups.⁵³

In addition, as Levmore notes, the possible advent of a new legal regime offers a particularly powerful opportunity for special interest groups with political power to threaten to block the enactment of the new regime.⁵⁴ Those groups may agree to allow the new regime to become law only upon securing transition relief.⁵⁵ Interest groups and politicians on the other side who highly value enactment of the new regime may be happy (under the circumstances) to make this trade.⁵⁶ In this sense, transition relief may be a goal often achievable through capture, lobbying, and barter, rather than on the basis of pure social welfare.

The weaknesses inherent in governmental provision of transition relief make market-based alternatives attractive. Yet no private market for transition relief has come into existence, and none is on the horizon. In the Part that follows, we explore and explain this puzzling lacuna.

⁵¹ Stuart Minor Benjamin & Arti K. Rai, *Fixing Innovation Policy: A Structural Perspective*, 77 GEO. WASH. L. REV. 1, 42 (2008).

⁵² For a review of capture theory, see Nicholas Bagley & Richard L. Revesz, *Centralized Oversight of the Regulatory State*, 106 COLUM. L. REV. 1260, 1284–92 (2006).

⁵³ See Bradford C. Mank, *Superfund Contractors and Agency Capture*, 2 N.Y.U. ENVTL. L.J. 34, 49 (1993) (arguing that “agency capture is a continuum” on which outside influence may not rise to level of total capture). Moreover, the success of interest groups at attaining transition relief at one stage may serve to fuel demands for additional transition relief—including extensions of earlier relief—at later stages. As Nash and Revesz explain: “Transition relief . . . generally gives rise to . . . an incentive for existing actors to try to preserve and extend transition relief so they can continue to extract the economic rents it creates.” Nash & Revesz, *supra* note 2, at 1729. Thus, lobbying begets transition relief, which may in turn beget more lobbying later for even more (or extensions of) transition relief.

⁵⁴ Levmore, *supra* note 7, at 1665.

⁵⁵ See, e.g., BRUCE A. ACKERMAN & WILLIAM T. HASSLER, *CLEAN COAL/DIRTY AIR* 44–54 (1981) (describing how polluting sources in eastern United States secured amendment of clean air legislation to limit ability of western states, where air was relatively cleaner, to attract prospective competitors through promise of less stringent air quality controls).

⁵⁶ Levmore, *supra* note 7, at 1665–66.

II

THE PRIVATE MARKET'S FAILURE

Regulated firms now confront a challenging landscape. On the one hand, there is a widely felt need for some type of transition relief, a need buttressed by sound economic theory. At the same time, government-provided relief—in the form of grandfathering—is widely opposed on the grounds that government will do a poor job of rationing the supply, both because of rent-seeking political activity and because government cannot accurately assess the market. The obvious remedy is a private market for regulatory insurance, and several commentators have suggested such a solution.⁵⁷ Yet no market has ever developed, for reasons no one has been able to explain adequately. In this Part, we attempt an explanation for this glaring market failure, and we propose a variety of measures that Congress might take to facilitate the development of private regulatory insurance.

A. The Need for Insurance

As the foregoing Part made clear, the possibility of state or federal regulation presents a set of business risks akin to the risk of loss from a fire or flood. Businesses will rationally wish to guard against many of these risks, and from the standpoint of overall social welfare, it will make sense in a variety of cases to allow businesses some protection against the costs and uncertainty that these regulatory transitions might create. Government-provided grandfathering is the traditional solution to such problems, but there are many reasons—political, market-related, and information-driven—to believe that government is a particularly ineffective purveyor of such relief.⁵⁸ Indeed, it is unlikely that government will succeed in allocating grandfathered relief in anything approaching an efficient manner.

Under these circumstances, the most evident solution would appear to be a private market for regulatory insurance. Firms would not be spared the costs of regulatory transitions, but they would be able to amortize those costs and deflect the risk and uncertainty associated with changes in the regulatory landscape. Regulated firms would then be able to make greater investments in new technologies and new lines of business without fear of unpredictable legal developments wiping them out. This loosening of firm behavior would likely

⁵⁷ E.g., Bell & Parchomovsky, *supra* note 50, at 307–10; Blume & Rubinfeld, *supra* note 7, at 590–92; Steve P. Calandrillo, *Eminent Domain Economics: Should “Just Compensation” Be Abolished, and Would “Takings Insurance” Work Instead?*, 64 OHIO ST. L.J. 451, 513–16 (2003); Kaplow, *Legal Transitions*, *supra* note 5, at 537–41; Shavell, *supra* note 7, at 78.

⁵⁸ See *supra* Part I.C.

have salutary overall effects on social welfare.⁵⁹ It is not surprising, then, that several commentators have suggested the value of a private market for regulatory insurance and transition relief. Indeed, while some have merely pointed to the obvious market need,⁶⁰ others

⁵⁹ Our claim that a functioning market for private regulatory insurance would enhance social welfare is based upon the arguments of numerous other scholars detailed in Part I. We do not intend to break any new ground on this question here. Nonetheless, we pause to address briefly one commonly raised objection to transition relief, namely, that it will disincentivize firms from adapting to new rules in socially beneficial ways.

Were it to exist, private regulatory insurance would be unlikely to generate this unwelcome effect so long as insurance contracts were structured properly. As we describe below in the subsection on moral hazard, these contracts should be written to provide fixed payouts in the event of regulation, not unlimited liability based upon an insured's actual losses. See *infra* Part II.B.1.a. Consider, for instance, the effect of a carbon tax on the American automobile industry. A carbon tax will make SUVs more expensive relative to smaller, more fuel-efficient cars. Consumers will accordingly shift some consumption to those smaller cars, and automotive companies will adjust production towards those types of vehicles as well.

This shift will occur irrespective of whether the industry is insured against carbon regulation: So long as insurance contracts are written to provide fixed payments in the event of regulation, insurance will not change firms' incentives at the margin. The firm will collect the fixed insurance payout regardless of what action it takes in response to the regulation. The firm will then make the same competitive decision it would have made absent insurance; it has no reason to adjust its behavior. Thus, the presence of insurance will not significantly dissuade firms from anticipating legal change, which is sometimes required as a matter of efficiency. See Michael J. Graetz, *Legal Transitions: The Case of Retroactivity in Income Tax Revision*, 126 U. PA. L. REV. 47, 65–66 (1977) (explaining that it is often efficiency enhancing when private parties anticipate legal change); Levmore, *supra* note 7, at 1663 (same).

Insurance might have some effect on industries' incentives to *anticipate* legal change. But even this will be a second-order effect. Again, insurance would not disincentivize firms from taking into consideration the possibility of future regulation at the margin; it would only affect the risk profile of the various options available to the firm. Thus, even if regulation is endogenous to firm behavior—e.g., the more that automobile manufacturers switch to fuel-efficient cars, the more likely it is that the government will impose a carbon tax—the availability of insurance would not significantly alter the probability of legal change. The principal effects of insurance would be to cushion the industry against the costs of switching production and possibly to disincentivize the industry from lobbying against regulatory change. See *infra* Part II.B.1.b (describing effect of regulatory insurance on industry lobbying). It is thus conceivable that the availability of insurance would have salutary effects on the rate of legal change. Cf. Levmore, *supra* note 7, at 1668–74 (describing ways in which transition relief can encourage legal change by mitigating losses of losers in new regime, but arguing such benefits are outweighed by risk of rent-seeking).

Automobile firms would be disincentivized from altering their behavior only if they were insured based on actual lost profits. In this circumstance, insured firms would have little or no incentive to mitigate the harm to their businesses caused by regulation—in fact, they might as well shut down. This presents a typical case of moral hazard, a threat that we believe can be dealt with by contract. We discuss the contractual solution to this problem *infra* Part II.B.1.

⁶⁰ See, e.g., Shavell, *supra* note 7, at 78; David A. Dana, Am. Enter. Inst. for Pub. Policy Research, Reforming Section 10 and the Habitat Conservation Program 27 (Sept. 15, 2009) (unpublished manuscript, on file with the *New York University Law Review*), available at <http://www.aei.org/docLib/Dana.pdf>.

appear to assume that such a market either already exists or will soon spring forth into being.⁶¹

Yet that has not taken place. There exists no meaningful market for regulatory insurance in the United States, and not even a market for insurance against government takings (which would appear to be a much simpler endeavor).⁶² This is not to say that there is an underdeveloped market for such insurance, or that firms are forced to pay exorbitant rates and often have difficulty finding coverage; to the contrary, the market simply does not exist. Firms that wish to guard against large governmental changes that affect their businesses must either self-insure or invest in lobbying as a palliative; there are no other options.

B. Market Explanations for the Insurance Gap

Given the obvious demand for some type of regulatory insurance to supplement (or displace) government-provided transition relief, the complete absence of any market solution is puzzling. Scholars have made various attempts to explain this gap in the market—though mostly in the context of takings, and more rarely with respect to general administrative regulation—and they have pinned the blame on a variety of the usual economic culprits. In this Section, we review these possibilities and ultimately conclude that none of the typical explanations offers a plausible solution to this puzzle, at least when it comes to health and safety regulations. Instead, we argue that the market's failure to provide any type of private insurance is attributable to the

⁶¹ See, e.g., Kaplow, *Legal Transitions*, *supra* note 5, at 537–41 (taking existence of private market insurance for granted in discussing moral hazard problem).

⁶² It is noteworthy that a robust market exists for insurance against foreign government expropriation of American firms' assets abroad. See Vicki Been & Joel C. Beauvais, *The Global Fifth Amendment? NAFTA's Investment Protections and the Misguided Quest for an International "Regulatory Takings" Doctrine*, 78 N.Y.U. L. REV. 30, 111–14 (2003) (describing market). Yet even this insurance covers only genuine seizure of property, not standard regulation. The policies written by the two major providers are illustrative. The Multilateral Investment Guarantee Agency insures only against

[a]ny legislative action or administrative action or omission attributable to the host government which has the effect of depriving the holder of a guarantee of his ownership or control of, or a substantial benefit from, his investment, *with the exception of non-discriminatory measures of general application which governments normally take for the purpose of regulating economic activity in their territories.*

Convention Establishing the Multilateral Investment Guarantee Agency art. 11(a), Oct. 11, 1985, T.I.A.S. No. 12,089, 1508 U.N.T.S. 99 (emphasis added). Similarly, the Overseas Private Investment Corporation (OPIC) insures policyholders only against "total expropriation" in violation of international or local laws, not standard legal regulation. See Been & Beauvais, *supra*, at 112–13 & n.383 (citing variety of OPIC documents and discussing possible limits of coverage, including regulatory expropriations).

difficulty of pricing what are effectively one-off “democratic” transactions.

1. Moral Hazard

Insurance against economic regulation poses two types of potential moral hazard problems. First, an insured firm might engage in “internal” activities that heighten its exposure to risk. A firm might fail to develop new product lines or ways of doing business as hedges against changes in the regulatory environment—the equivalent of failing to take useful precautions—or it might recklessly expand its business in such a way as to heighten damages in the event of a regulatory change. Second, the firm might engage in “external” activities—namely, lobbying—that heighten the likelihood of regulation. We consider these possibilities in turn.

a. Internal Activities

Much like an individual with full medical coverage who chooses to engage in risky and dangerous activities without adequate precautions, a firm that has procured insurance against a particular type of regulatory risk might ignore possible mechanisms for diminishing its exposure. For instance, a firm whose business relies on a particular hazardous chemical might fail to explore alternatives if it has insured against the risk of the government banning that chemical. These types of moral hazards have typically shouldered the blame for the failures of a variety of insurance markets, including insurance against takings and regulation.⁶³

Yet the potential moral hazard in regulatory settings is not so easy to pinpoint. Moral hazard problems exist when an insured party engages in behavior—particularly as a consequence of purchasing insurance—that the insurer has not priced into the contract.⁶⁴ The

⁶³ See, e.g., Blume & Rubinfeld, *supra* note 7, at 593–95 (discussing complete lack of competitive insurance markets for regulatory and physical takings); Calandrillo, *supra* note 57, at 513–14 (arguing that subjective valuations of real property by owners pose problems for market value–based compensation); see also Lee Anne Fennell, Unbundling Risk 34–36 (Jan. 31, 2010) (unpublished manuscript, on file with the *New York University Law Review*) (blaming failure of markets to emerge in part on inability to separate insurable risks from those under individual’s control); cf. Robert G. Chambers, *Insurability and Moral Hazard in Agricultural Insurance Markets*, 71 AM. J. AGRIC. ECON. 604, 604 (1989) (noting that moral hazard is one of foremost obstacles to establishing private agricultural insurance markets).

⁶⁴ See, e.g., Kenneth J. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 AM. ECON. REV. 941, 961 (1963) (examining moral hazard as limitation on insurance). See generally Mark V. Pauly, *The Economics of Moral Hazard: Comment*, 58 AM. ECON. REV. 531 (1968) (applying economic analysis to moral hazard in medical insurance); Steven Shavell, *On Moral Hazard and Insurance*, 93 Q.J. ECON. 541 (1979) (discussing partial

extreme skier who buys specially targeted health insurance is already paying an additional premium for the increased risk that attends his sport; there is no moral hazard. It is the mild-mannered law professor who decides to take up extreme skiing because of his newly-purchased gold-plated insurance who exploits a moral hazard. Similarly, in the case of a home insurance policy against fire damage, the moral hazard arises from the fact that the policy includes provisions requiring the homeowner to install fire alarms, avoid space heaters, and so forth.⁶⁵ If the policy is priced to reflect the assumption that the homeowner will take these steps, and if it is costly for the insurance company to monitor whether the homeowner has complied (either before the fact or after an accident has occurred), there is a substantial threat that the homeowner will fail to take the necessary precautions.⁶⁶

But what are the assumptions built into the pricing of regulatory insurance? Coverage must be based upon a firm's current business rather than hypothetical developments and new product lines. Any other approach would be too speculative because neither the insurance company nor the firm can predict whether new research and development will bear fruit. Thus, it would be crucial for insurers to write contracts that provided fixed payouts to insured parties in the event of regulatory action (i.e., a promise to pay \$10 million in the event that Congress enacts a carbon tax). This sort of fixed-payment insurance contract—unlike one that protected a firm against its full losses without specifying those losses in the contract in advance—would protect the insurer against threats of moral hazard.⁶⁷

Moreover, this type of pricing would leave in place the firm's incentives to act efficiently. Purchasers of home fire insurance have the ability to take effective precautions (such as installing smoke alarms) and naturally demand insurance contracts that are priced lower to reflect these precautions;⁶⁸ the moral hazard problem arises because of the cost of monitoring. Here, there is no need to create contracts based on speculative business developments. The regulated

solutions to moral hazards). For a broader treatment of the topic, see generally Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237 (1996).

⁶⁵ See Kaplow, *Legal Transitions*, *supra* note 5, at 538 & n.79 (explaining interaction of moral hazard and efficient precautions); Chunchi Wu & Peter F. Colwell, *Moral Hazard and Moral Imperative*, 55 J. RISK & INS. 101, 112–15 (1988) (same).

⁶⁶ See Bengt Holmström, *Moral Hazard and Observability*, 10 BELL J. ECON. 74, 74 (1979) (noting role of asymmetric information in causing moral hazard problems due to one contracting party's inability to observe perfectly other party's behavior).

⁶⁷ See *supra* note 59 and sources cited therein.

⁶⁸ Social costs are minimized when both parties take all efficient precautions. Robert Cooter, *Unity in Tort, Contract, and Property: The Model of Precaution*, 73 CAL. L. REV. 1, 6 (1985).

firm can simply insure based on its current operations, which are not costly to verify.⁶⁹ If a line of research presents the opportunity for an efficient precaution—by ameliorating a firm’s regulatory risk exposure—the firm has appropriate incentives to undertake that line of research: If it switches to a less hazardous (and less likely to be regulated) chemical, it can negotiate less extensive coverage along with lower premiums, allowing the firm to realize the benefits from its less risky behavior.⁷⁰ In this sense, the firm is insured only against external regulatory risk, not against the “business” risk presented by failed development projects or inadequate research investment.

Nor would regulatory insurance likely spur any excess investment in firm activities. If a firm knows that it will be compensated fully for losses in the event of regulation—through the Takings Clause, for instance, or via grandfathering—it has every incentive to make further investments that might soon be destroyed (in the case of a taking) or are inefficient when compared with alternatives (in the case of grandfathering).⁷¹ Regulatory insurance, by contrast, can be priced to deal with these possibilities. Standard insurance contracts have coverage limits and are priced according to those limits;⁷² if a firm wishes to expand a line of business and insure itself against the risk, the insurer will force it to disclose this expansion and pay correspondingly higher premiums.⁷³ So long as the insurer can observe actual, relevant firm behavior, and so long as insurance contracts remain renegotiable to reflect changed circumstances—both reasonable assumptions—this type of regulatory insurance should not generate any significant moral hazard.

⁶⁹ An insurer could employ the same mechanisms that the EPA might use to verify a firm’s production or use of a particular chemical and, in many situations, could simply piggyback off of already existing permitting and disclosure requirements. The additional advantage of these verification efforts is that, in many instances, fraudulent disclosures would be penalized civilly or criminally by state or federal authorities rather than as mere instances of contract breach.

⁷⁰ For a discussion of the use of feature ratings in assessing insurance premiums, see KENNETH S. ABRAHAM, *DISTRIBUTING RISK: INSURANCE, LEGAL THEORY, AND PUBLIC POLICY* 79–82 (1986).

⁷¹ See Calandrillo, *supra* note 57, at 493–95 (discussing excess incentives to invest in improvements under system of government compensation).

⁷² See Benjamin J. Richardson, *Mandating Environmental Liability Insurance*, 12 *DUKE ENVTL. L. & POL’Y F.* 293, 295–96 (2002) (describing structure of conventional insurance contracts).

⁷³ See Michael Spence & Richard Zeckhauser, *Insurance, Information, and Individual Action*, 61 *AM. ECON. REV.* 380, 383 (1971) (analyzing manner in which insurers write typical contracts); see also Kaplow, *Legal Transitions*, *supra* note 5, at 538–40 (same).

b. External Activities

In contrast to other typical forms of insurance, the triggering events for regulatory insurance—legislation or agency action—are entirely deliberate and fully “man-made.” As a consequence, insurance against regulatory risk would seem particularly subject to moral hazard because the events in question are especially susceptible to human influence.⁷⁴ That is, an insurance company may become concerned that an insured firm will not take efficient steps to prevent—or might even hasten—regulatory action against which the firm is insured.⁷⁵

Consider the following basic model involving three actors: a regulatory agency, a regulated firm, and an insurer. Absent insurance, the firm will lobby the agency in an attempt to forestall or avoid regulation where it believes that the costs of lobbying are less than the expected benefits of avoiding regulation (discounted by the probability that regulation will occur nonetheless). If the firm is able to insure, however, it no longer bears the risk of regulation and so no longer has any incentive to lobby. If the firm is obligated to lobby (such as by contract), or even if it is asked to take a position on regulation, the firm will shirk if its effort level is costly to monitor. Moreover, under certain circumstances, the firm might even lobby in favor of stricter regulation. In particular, if the firm is fully insured (and therefore indifferent between regulation and no regulation) but believes that its competitors are not as well insured (and are consequently more vulnerable to regulatory change), the firm might rationally invest in lobbying efforts against its own ostensible interest.

Insurers, however, should be able to cure these moral hazard problems through contract. The parties simply could write regulatory insurance contracts to ban any lobbying activities by insured firms (and to force them to take no public position on relevant regulatory action). And it should not be difficult for insurers to monitor this type

⁷⁴ Of course, arson and theft for hire similarly involve human-catalyzed insurable risks. But these are rare, illegal activities deterred by the criminal justice system, and so they do not raise the same concerns as the possibility of legal individual action to influence the likelihood of the occurrence of a covered event.

⁷⁵ A similar concern motivated the traditional notion that an insurance firm will provide coverage only against events that arise from pure “fortuity.” See ERIC MILLS HOLMES & MARK S. RHODES, *HOLMES’S APPLEMAN ON INSURANCE* § 1.4(A) (Eric Mills Holmes ed., 2d ed. 1996) (describing fortuity and exclusion of intentional conduct from coverage); BARRY R. OSTRAGER & THOMAS R. NEWMAN, *HANDBOOK ON INSURANCE COVERAGE DISPUTES* § 8.02, at 561 (14th ed. 2008) (“Thus, by definition, insurance is not available for losses that the policyholder knows of, planned, intended, or is aware are substantially certain to occur.”); JEFFREY W. STEMPER, *STEMPEL ON INSURANCE CONTRACTS* § 1.06(A)(1) (3d ed. Supp. 2010) (to same effect).

of activity. Lobbyists must register federally and list their clients;⁷⁶ holders of public office (and candidates) must disclose campaign contributions;⁷⁷ and the Freedom of Information Act,⁷⁸ along with the Administrative Procedure Act,⁷⁹ can be used to force most private efforts to influence public policy into the open.⁸⁰ Certainly the possibility of secret, closed-door meetings between legislators and executives of regulated companies always remains, but this type of covert activity is far less common and far less likely to be effective without the backing of actual monetary support. Because federal laws have forced lobbying to become such a public activity, third parties such as insurers should have less difficulty monitoring it than they would have overseeing the private behavior involved in most typical insurance.

One remaining question is whether a contract that bans insured firms from lobbying would preclude some efficient solutions that the parties would otherwise prefer. For instance, lobbying by a regulated firm might be an efficient “precaution” against further regulation, akin to installing a smoke alarm to guard against fire. If there are gains from allowing firms to lobby, firms will demand the opportunity to purchase lower-priced insurance contracts predicated on their doing so. Once the parties write these contracts, the moral hazard problem returns with full force: While an insurer can monitor relatively easily whether a firm engages in any quantity of lobbying greater than zero (as described above), it will be very costly for the insurer to monitor the precise quantity and quality of that lobbying. A firm could hire cheaper and less effective lobbyists; it could trade a willingness to accept regulation against which it is insured for the blocking of another type of regulation for which it has no insurance; and so forth. Information regarding the precise details of a firm’s lobbying efforts—details which easily can have a large influence on the success of those efforts—is costly for an outside insurer to access.⁸¹

⁷⁶ 2 U.S.C. §§ 1603–1604 (2006).

⁷⁷ 2 U.S.C. § 434(a)–(c) (2006).

⁷⁸ 5 U.S.C. § 552 (2006).

⁷⁹ 5 U.S.C. §§ 551–559 (2006).

⁸⁰ See Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1, 125 (1998) (“[G]ood-government supplements to the APA . . . make participation easier by facilitating agency monitoring [T]hese acts owe their origin in part to efforts to render administrative government more open by lowering the costs of monitoring agency deliberations.” (footnotes and internal quotation marks omitted)). See generally Cass R. Sunstein, *Informational Regulation and Informational Standing: Akins and Beyond*, 147 U. PA. L. REV. 613, 614 (1998) (describing use of federal statutes to reveal information on public deliberations and lobbying).

⁸¹ Indeed, monitoring even the most basic details of a firm’s lobbying efforts would appear to be a substantial undertaking. The sheer volume of issues that large firms spend resources on can be astounding. For example, a study conducted after the passage of the

Any insurance contract that specifies a nonzero level of lobbying will thus be difficult to monitor and subject to possible shirking and moral hazard.

There is, however, no reason to believe that there are efficiency gains from allowing regulated firms to lobby. After all, typical industrial firms have no particular expertise in lobbying—they are experts at producing whatever good or service they offer in the marketplace. For this reason, and in part because lobbying is itself a regulated activity, firms are unlikely to do their own lobbying. Instead, they more commonly hire professional lobbying firms to advocate for them.⁸² There is no particular reason why regulated firms should be the ones to do that hiring; if lobbying is an “efficient precaution,” insurers can just as easily be the ones to purchase lobbying services. There might even be economies of scale if insurers are able to write multiple related insurance contracts and hire single lobbyists to advocate for or against regulations that affect each member within the group.⁸³ These types of bundled, insured regulatory interests might serve as efficient solutions to the collective action problems surrounding lobbying: The grouping of related firms under the auspices

Lobbying Disclosure Act of 1995, Pub. L. No. 104-65, 109 Stat. 691 (codified as amended at 2 U.S.C. §§ 1601–1612 (2006)), found that during the six-month period between July and December 1996, General Motors filed 47 reports with the government detailing 157 issues on which they had lobbied and spent over \$15 million. Frank R. Baumgartner & Beth L. Leech, *Studying Interest Groups Using Lobbying Disclosure Reports*, 18 VOX POP NEWSL. POL. ORGS. & PARTIES (Ray C. Bliss Inst. of Applied Politics, Univ. of Akron, Akron, Ohio), Summer 1999, at 1, 2, available at http://www.uakron.edu/bliss/docs/Vol_18_Iss_1.pdf. Furthermore, the lobbyists engaged by interest groups will often have the discretion to choose both the forms that their lobbying efforts will take and the intensity of those efforts. For a discussion of the flexible approach lobbyists apply to issue advocacy, see generally Thomas T. Holyoke, *Choosing Battlegrounds: Interest Group Lobbying Across Multiple Venues*, 56 POL. RES. Q. 325 (2003). Lastly, it is difficult to imagine how a firm could accurately report the total quantity and effectiveness of its informal or grassroots lobbying efforts. See generally KENNETH M. GOLDSTEIN, *INTEREST GROUPS, LOBBYING, AND PARTICIPATION IN AMERICA* (1999) (providing broad-ranging analysis of lobbying in United States). Given the range of activities in which firms engage, difficult determinations might have to be made about whether ostensibly nonpolitical activities have some influence on political access. For example, should charitable donations be monitored as part of a firm's lobbying effort? See Craig Smith, *The New Corporate Philanthropy*, 72 HARV. BUS. REV., May–June 1994, at 105, 109–10 (describing use of charitable donations as form of lobbying).

⁸² See Frank R. Baumgartner & Beth L. Leech, *Interest Niches and Policy Bandwagons: Patterns of Interest Group Involvement in National Politics*, 63 J. POL. 1191, 1195 tbl.1 (2001) (finding that among businesses that participated in substantial lobbying activity, 73% utilized professional lobbying firms and only 27% engaged in their own lobbying activities).

⁸³ This practice might of course create other problems of correlated risk, which we address *infra* Part II.B.3. But if insurers are diversified adequately, it should be possible for them to obtain economies of scale without subjecting themselves to undue threats.

of one insurer would lower the costs of negotiating a cooperative lobbying agreement. In this fashion, insurers might even form efficient substitutes for large trade associations (which often function primarily as lobbying groups).⁸⁴

In a competitive market for regulatory insurance, insurers will have an incentive to seek out efficient lobbying precautions in order to compete along the dimension of price. It is difficult to know whether the absolute amount of lobbying will decrease or increase, and because lobbying often (but not always) involves rent-seeking that diminishes social welfare,⁸⁵ a more efficient system of lobbying may not diminish the social harm caused by lobbying on the whole. The amount of money spent on lobbying may well decrease, however, and a decline in these deadweight expenditures almost certainly would be socially beneficial.

Finally, it is worth noting that a private market for regulatory insurance could collapse if the fact that a firm had purchased insurance caused the government to regulate that firm more aggressively on the theory that the regulation would not substantially harm the firm. If insurance itself caused regulation, the price of insurance would rise dramatically, likely to the point at which it was no longer economically worthwhile for the firm. We do not believe that this pattern will develop for two reasons. First, insurance agreements are private contracts between insurer and insured; the government may have no means of discovering which parties actually have obtained insurance. Second, insurance companies themselves will have an incentive to lobby against regulation that will harm them financially. As we note here, it is difficult to know whether the overall amount of lobbying would increase or decrease in a regime of significant regulatory insurance. Regardless, the fact of insurance lobbying will erase the notion

⁸⁴ See Baumgartner & Leech, *supra* note 82, at 1194–98 (showing that businesses and trade associations account for vast majority of lobbying expenditures); see also Ron Chepesiuk, *The Environmental Lobbying Game: Who Plays It on Capitol Hill and How*, 102 ENVTL. HEALTH PERSP. 640, 640–42 (1994) (discussing lobbying efforts of trade associations in area of environmental regulation). We hasten to add that we take no position on whether lobbying is socially beneficial or harmful, or what amount of lobbying is optimal. We mean only to argue that large-scale regulatory insurance would not likely affect the overall quantity of lobbying. The most significant change would simply be a substitution away from trade associations and other interest groups and toward insurance companies.

⁸⁵ E.g., Anne O. Krueger, *The Political Economy of the Rent-Seeking State*, 64 AM. ECON. REV. 291, 295 (1974) (arguing that rent-seeking often leads to welfare losses); see George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 4–6 (1971) (arguing that demand from industry groups shapes form of regulations); cf. Michael Lusztig, *The Limits of Rent Seeking: Why Protectionists Become Free Traders*, 5 REV. INT'L POL. ECON. 38 (1998) (arguing that governments can turn rent-seekers into proponents of free trade by convincing them that rents are unavailable).

that regulatory action against insured parties is a “free lunch” for legislators and regulators. If regulation of insured firms becomes more common, the increase in regulatory activity likely will be commensurate with (and driven by) the welfare gains to be had from regulatory insurance in the first instance. There is thus no reason that the threat of moral hazard should derail the development of a robust market for regulatory insurance.

2. *Adverse Selection*

Adverse selection problems occur when systems of insurance become more attractive to riskier firms and individuals, leading them to enroll in disproportionate numbers and impose unaccounted costs on insurers.⁸⁶ Consider, for instance, an optional health insurance program offered at fixed cost to all employees of a particular firm. The greater an individual’s health risk, the more valuable the health insurance will be to that individual; and because the price of insurance is fixed, the more likely that individual will be to enroll in the health plan. This fixed-price plan will thus adversely select the most at-risk employees, and the insurer’s costs will rise. No matter how high the insurer sets the premium, the plan will always attract employees with the highest risks, and the insurer will be likely to lose money as a result.⁸⁷

Several scholars have suggested that adverse selection problems are likely to plague systems designed to insure against takings of real property.⁸⁸ For instance, homeowners who know that they are more likely to be subject to takings will opt into insurance plans at higher rates. Like threats of moral hazard, however, adverse selection problems depend at their core on information asymmetries. If all relevant information is public, insurers can price contracts accurately and higher-risk private parties who wish to opt in will be able to do so only at elevated rates. The fear in the takings context is that landowners

⁸⁶ See Mark Pauly & Sean Nicholson, *Adverse Consequences of Adverse Selection*, 24 J. HEALTH POL., POL’Y & L. 921, 922 (1999) (describing self-selection process creating adverse selection problem); see also George L. Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 YALE L.J. 1521, 1540–42 (1987) (discussing systemic effects of adverse selection); Michael Rothschild & Joseph Stiglitz, *Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information*, 90 Q.J. ECON. 629, 636 (1976) (discussing equilibrium of market with imperfect information).

⁸⁷ See Fennell, *supra* note 63, at 41–43 (describing manner in which adverse selection problems can frustrate systems of insurance).

⁸⁸ E.g., Blume & Rubinfeld, *supra* note 7, at 595–96; Calandrillo, *supra* note 57, at 526–27; Fischel & Shapiro, *supra* note 46, at 286 (“An explanation for lack of private taking insurance . . . is adverse selection. A public planner might tip off landowners of an impending taking and encourage them to apply for insurance in order to reduce political opposition to his project.”).

will have better information regarding the sorts of local projects that might lead to eminent domain—new roads, rail lines, development projects, and the like.⁸⁹ Local city councils and planning boards might discuss these projects in forums—such as town meetings—that are easily accessed by local residents but far more opaque to national and international insurance companies.⁹⁰

These threats may be present in the context of takings of real property, but they are unlikely to plague more general regulatory insurance. The key to the adverse selection problem for takings insurance is that both the vast majority of the relevant governmental action and the potential insured parties are *local*, while the principal insurers are not. It is this geographic and political divide that gives rise to the necessary informational asymmetries. The types of regulation that concern us here, by contrast, are rarely local; they are almost always created by state and federal governmental entities. As we have already noted, there is negligible private information about these types of regulation (except the information held by the government actors themselves), and so regulated firms possess essentially no informational advantage over their putative insurers.⁹¹ Without such an asymmetry, there can be no problem of adverse selection.

3. *Uncorrelated Risks*

Another potential hurdle to regulatory insurance lies in the difficulty of finding truly uncorrelated risks. Insurance companies exist (and succeed) because they are able to diversify across a large portfolio of unconnected contracts that offer unrelated risks.⁹² For instance, house fires in Iowa and New York are entirely uncorrelated; no single event will cause both, and there is no reason to believe that a fire in one place will cause a fire in another. Accordingly, an insurance firm can safely insure a house in Iowa and a house in New York (and, to extrapolate, millions of other homes similarly scattered across the country) without fear that one isolated event will force the firm to pay benefits to millions of homeowners simultaneously.

⁸⁹ See Calandrillo, *supra* note 57, at 526 (noting individuals with inside knowledge of likely takings will buy insurance at disproportionate rates).

⁹⁰ In contrast, adverse selection problems are far less likely with respect to takings of, for instance, beachfront property. It is no secret whether a parcel of land includes beach access, and this is precisely the type of information that insurers are likely to collect before writing insurance contracts.

⁹¹ See *supra* notes 76–80 and accompanying text (describing public nature of lobbying and regulation, which suggests that regulated firms have no greater access to relevant information on regulators than insurers do).

⁹² See Richard A. Epstein, *Products Liability as an Insurance Market*, 14 J. LEGAL STUD. 645, 648–53 (1985) (explaining economic advantages of ability to diversify risk).

It is for this reason that insurance companies have been reluctant to write policies insuring against terrorism, natural disasters, or other large-scale calamities (often referred to as “catastrophe insurance”).⁹³ A single hurricane can destroy an enormous swath of housing along the Florida coast or (nearly) the entire city of New Orleans, and only an extremely large and well-diversified insurer could bear the risk of insuring a substantial number of houses in a potential hurricane path. Similarly, insurers fear that a major terrorist act—a nuclear, biological, chemical, or radiological attack—could destroy or render uninhabitable a substantial swath of a major city, not to mention kill tens of thousands of people.⁹⁴ An insurer has only two options in the face of such a large risk: refuse to insure more than a handful of people or properties in any major city, or refuse to write individual policies that cover acts of terrorism. By and large, insurers have chosen the latter.

Similar problems could conceivably be present in the market for regulatory insurance. Regulation, particularly federal regulation, often exceeds even natural disasters in scope, affecting hundreds of firms in dozens of industries simultaneously, with economic impacts measured in the billions of dollars.⁹⁵ Even state-level regulation can have potent and widespread effects, particularly if it comes from a populous,

⁹³ See Dwight M. Jaffee & Thomas Russell, *Catastrophe Insurance, Capital Markets, and Uninsurable Risks*, 64 J. RISK & INS. 205, 206 (1997) (noting that “catastrophe risks” may be uninsurable if they are “too large”); see also Mario Miranda & Dmitry V. Vedenov, *Innovations in Agricultural and Natural Disaster Insurance*, 83 AM. J. AGRIC. ECON. 650 (2001) (discussing unwillingness of traditional insurance markets to cover agricultural products in event of catastrophe and offering as solution possible securitization of these risks); cf. Daniel A. Farber, *Uncertainty as a Basis for Standing*, 33 HOFSTRA L. REV. 1123, 1129 (2005) (“[T]he president of the Reinsurance Association of America has reportedly warned that global warming could bankrupt the insurance industry.”).

⁹⁴ See Ronald E. Ferguson, Chairman, General Re Corp., Statement on the Impact of the September 11, 2001 Terrorist Attacks on the U.S. Insurance and Reinsurance Industry (Sept. 26, 2001), <http://financialservices.house.gov/media/pdf/092601fe.pdf> (predicting that U.S. insurance industry would be unable to sustain effects of multiple attacks on level of those witnessed on September 11). However, the extent to which insurers will be liable in the event of a future terrorist attack is still largely uncertain. See Michelle E. Boardman, *Known Unknowns: The Illusion of Terrorism Insurance*, 93 GEO. L.J. 783, 790–98 (2005) (explaining that, in spite of federal government’s efforts to require coverage of terrorist attacks by insurance companies, vast majority of policies still contain valid exclusions for nuclear, biological, and chemical attacks, and arguing that terrorism in United States is essentially uninsurable).

⁹⁵ See, e.g., CONG. BUDGET OFFICE, THE TOTAL COSTS OF CLEANING UP NONFEDERAL SUPERFUND SITES 15–16 (1994), available at <http://www.cbo.gov/ftpdocs/48xx/doc4845/EntireReport.pdf> (estimating that continuing costs to private parties for Superfund cleanups would exceed \$43 billion). For a wide-ranging look at and critique of ex ante cost assessments and the lack of retrospective empirical studies determining compliance costs for various regulatory programs, see generally Thomas O. McGarity & Ruth Ruttenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 TEX. L. REV. 1997 (2002).

highly industrialized state such as California or New York.⁹⁶ The difficulty in assembling a portfolio of truly uncorrelated risk positions in the face of such widespread single-event threats might be preventing a robust market for regulatory insurance from forming.

We do not, however, believe that this is the case. There is a crucial distinction between regulatory insurance and catastrophe or terrorism insurance: Well-conceived regulatory insurance will cover only one (or a finite number) of the potential business risks to a firm, while catastrophe insurance effectively forces the insurer to assume the risk of the destruction of the entire enterprise. For instance, any given firm might use dozens of potentially regulated chemicals and employ dozens of potentially regulated workplace practices, each of which accounts for some small proportion of the firm's value. A potential insurer could select which of these many available risks it is willing to assume, knowing that any individual regulation would lead only to a partial decrease in firm value—not the complete destruction of the firm that might occur in the event of a hurricane.⁹⁷

In a competitive marketplace of multiple insurers, any given firm should be able to find one or more insurers willing to take on any given slice of risk. Imagine, for instance, a world in which there are N potentially harmful chemicals (Chemicals 1, 2, 3, . . . N), and J potentially regulated employment practices (Practices 1, 2, 3, . . . J). A given insurer might elect to write policies for some firms using Chemical 1 in California, Iowa, and Georgia, some firms using Chemical 2 in New York and Illinois, some firms employing Practice 5 in North Carolina and Arizona, and so forth. With a sufficient number of insurers to spread the total nationwide risk, firms should be able to purchase coverage for any risks that they wish to amortize. There are limits to this principle if an insufficient number of insurers enter the marketplace; for instance, the fiftieth firm using Chemical 2 in California might be unable to acquire coverage if there are too few independent insurance companies.⁹⁸ But at least *some* insurance, perhaps for less commonly

⁹⁶ Regulations in a state such as California can affect businesses located elsewhere that merely do business in California, forcing them to adjust their practices if they hope to maintain their access to that valuable market. See John M. Broder, *Obama Directs Regulators To Tighten Auto Standards*, N.Y. TIMES, Jan. 26, 2009, <http://www.nytimes.com/2009/01/27/us/politics/27calif.html> (describing effects of allowing states such as California and New York to set higher automobile mileage standards).

⁹⁷ This is the equivalent of a homeowner's insurance policy protecting only the furniture or the second bedroom against fire, rather than the entire house.

⁹⁸ Suppose there are fifty California firms that use the same chemical and only two regulatory insurers in the marketplace. Each insurer might be willing to write only twenty contracts on the same regulatory risk within the same jurisdiction for fear of taking on too much correlated risk. Under these circumstances, only forty of the firms would be able to

used chemicals, should be available. A fear of correlated risks, therefore, cannot account for the complete absence of a market for regulatory insurance.⁹⁹

There is, however, one potential respect in which nationwide regulatory risks could be correlated: the case of a large political transition, a substantial transfer of power from one party to another within one or more branches of government.¹⁰⁰ For instance, a new administration that assumes power with a commanding mandate and a set of preferences that differs significantly from the status quo (or from the prior administration) might undertake a sweeping set of regulations, covering a swath of environmental and economic fields. Yet this outcome, while possible, is highly unlikely. No President regulates every possible field of endeavor; the total number of regulations within any four-year period, even if it appears large to the naked eye, represents only a small fraction of the conceivable regulations that the government might create (and against which firms might have insured).¹⁰¹ In fact, there is not a great deal of variation in the total number of regulations among modern administrations; the most prolific regulators were not significantly more active than the least.¹⁰² Even if there were variation, however, insurers could simply write policies that expire before a change in administration and reprice insurance contracts to accord with new risks presented by an incoming party.

obtain coverage for regulatory risk related to that chemical, and ten firms would remain uninsured.

⁹⁹ It is worth noting that we do not think that the threat of correlated risks can account fully for the absence of a catastrophe or terrorism insurance market, either. All of these same options for managing risk are available to the firms that write such policies, and firms need only limit the number of policies written in one geographic area if they wish to contain their overall risk exposure. Furthermore, financial services firms are adept at slicing financial products and securities into tranches, each of which contains a small piece of a large number of financial instruments. The resulting financial products can help distribute risk and guard against all but the most widely spread national risks. Natural disasters are essentially never national phenomena, and only the most serious conceivable terrorist threat would have national reach—at which point paying insurance claims might no longer be a relevant consideration. Instead, we think that the lack of a viable market for these types of insurance products is attributable to the cause we describe *infra* Part II.B.4.

¹⁰⁰ We hasten to add that a transfer from Democratic to Republican control might be no less threatening than a transfer in the opposite direction, despite the fact that Republicans are conventionally thought to favor less regulation than Democrats. In many cases, firms may wish to insure against deregulation; for instance, a firm that has developed a safe alternative to CFCs and staked a sizeable investment in their continued regulation might want to insure against deregulation of the ozone-depleting gas. The model we present here is fully generalizable to any legislative or agency action, regardless of direction.

¹⁰¹ See Anne Joseph O'Connell, *Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State*, 94 VA. L. REV. 889, 931 chart 1 (2008) (demonstrating that federal bureaucracy as whole produces on order of 800–1000 regulations per year).

¹⁰² See *id.* (comparing George H.W. Bush, Bill Clinton, and George W. Bush administrations).

We do not wish to overstate these conclusions; the threat of correlated regulatory risks is not trivial. But we do not believe that it can explain the complete dearth of regulatory insurance. Rather, we believe that the explanation lies with a difficulty more fundamental to insurance markets, and one that is less easily surmounted.

4. *The Difficulties in Regulatory Pricing*

Amidst all of the concern regarding moral hazard, adverse selection, and correlated risk problems in the market for regulatory insurance, scholars have almost entirely ignored the problem of pricing such insurance. Pricing difficulties are, of course, not unique to regulatory insurance, and they can plague systematic efforts to buy and sell probabilistic options of all types.¹⁰³ Yet regulatory actions undertaken by governments are fundamentally different from the types of events that form the subject of most insurance products, and the problems that they create are different in kind from those that exist in traditional insurance contexts.

As one might expect from a multi-trillion dollar industry, the mechanics of pricing insurance are objective and actuarial. When deciding whether to write a policy insuring a car, a home, or a person's health, insurance companies consult complicated matrices of risk factors and results, assessing the risk involved in a particular project based upon the rate of accidents that have befallen similarly situated individuals.¹⁰⁴ Insurance companies know how much to charge a married, male, twenty-seven-year-old driver of a family sedan living in the 02143 zip code for automobile insurance because they have data on the rate of accidents among drivers in that same demographic and geographic stratum.¹⁰⁵ Each driver or each homeowner is responsible for a series of independent events that insurers can assemble and analyze. Moreover, accident data are usable and reliable because they are

¹⁰³ See Kenneth S. Abraham, *Environmental Liability and the Limits of Insurance*, 88 COLUM. L. REV. 942, 955–76 (1988) (laying blame for unavailability of environmental liability insurance in mid-1980s partly on inability of insurance firms to assess expected losses due to high levels of legal uncertainty created by then-recent expansion of environmental liability).

¹⁰⁴ For a discussion of risk classification, see generally Kenneth S. Abraham, *Efficiency and Fairness in Insurance Risk Classification*, 71 VA. L. REV. 403 (1985), which attempts to resolve the tension between the efficiency-promoting and risk-distributional features of classification, and Keith J. Crocker & Arthur Snow, *The Efficiency Effects of Categorical Discrimination in the Insurance Industry*, 94 J. POL. ECON. 321 (1986), which argues that costless imperfect categorization, such as that based on age, sex, or race, always increases efficiency.

¹⁰⁵ See Regina Austin, *The Insurance Classification Controversy*, 131 U. PA. L. REV. 517, 519–26 (1983) (explaining methodology employed by insurance companies to estimate accident rates for classes of insured individuals).

voluminous—millions of insured drivers drive tens of millions of miles per day and file thousands of accident reports. An insurer need only accumulate the necessary data and develop corresponding pricing models. With sufficiently large data sets, individual variations will wash out, and insurers will know approximately what they are bargaining for when they agree to insure a given individual—on average, one married twenty-seven-year-old with a sedan behaves much like another.

None of this is possible in the context of regulatory insurance for a number of interconnected reasons. First, in comparison to typical accidents, significant regulatory acts occur extremely infrequently, usually numbering just below one thousand per year nationally.¹⁰⁶ Even this description overstates their quantity in the same way that a reporting of all fires, floods, automobile accidents, and illnesses would overstate the effective number of insurance claims (and thus the number of useful data points) in a given year. Each federal agency issues no more than a handful of regulations each year, and thus any given regulatory field is altered only rarely.¹⁰⁷ Without a broader pool of data to draw upon, an insurance firm cannot reliably estimate the hazards presented by any given regulation.

Second, unlike traffic accidents or house fires, regulatory acts are effectively one-off, nonstochastic events. An individual fitting a given demographic profile in 2005 is, for the most part, equally likely to have an automobile accident as a similarly situated individual in 2006—what variation exists is captured by the easily obtainable demographic information that insurers collect. Accordingly, data from 2005 are useful in predicting 2006 outcomes, data from 2004 are useful in predicting both 2005 and 2006, and so on. The likelihood of a particular regulation, on the other hand, depends upon a wide variety of factors the impact of which is often unobservable or unpredictable. A shift in agency leadership or political priorities, a transfer of govern-

¹⁰⁶ O'Connell, *supra* note 101, at 931. We have not been able to locate reliable data, but we suspect that states are somewhat less prolific, with dozens to hundreds of state regulatory acts per year.

¹⁰⁷ The most prolific regulator, the Department of the Interior, averages approximately 100 regulations per year, with a high of 200. *Id.* at 939 chart 5. A variety of other federal agencies, including the Department of Commerce, Department of Transportation, SEC, FCC, and EPA average between 25 and 100 regulations per year. *Id.* In addition, many agency regulations are not truly “regulatory” in the sense that private firms or other interested parties would understand the term. Many concern internal agency procedures or set nonbinding guidelines and thus are unlikely to be the type of actions that firms would wish to insure against. Presumably, a large percentage of the Department of the Interior’s activities, which concern internal management of federal lands, fall into that category. Accordingly, the number of data points available to an insurer are likely substantially lower than the rough estimates that we present as upper bounds.

mental power, a change in membership or chairmanship on a key committee, or even new developments in science or technology (or culture) can affect the probability of any given regulation in any particular field in unforeseeable ways.¹⁰⁸ In addition, the uncertainty and variance in regulatory outcomes generated by single events can be tremendous. Publicity about evidence of a disappearing ozone layer may have made regulation of CFCs vastly more likely;¹⁰⁹ it is unlikely that any single action would raise the rates of automobile accidents in the same way.¹¹⁰

Worse still, regulation in one period is not necessarily a good proxy for regulation in another period. The fact that the EPA regulated carbon monoxide during the 1970s is not a good indicator of what action the agency will take with respect to carbon dioxide today—the two are very different chemicals that present widely variant risks and raise distinct economic questions. Similarly, the fact that the EPA has acted once to regulate the level of arsenic in drinking water has ambiguous effects on the likelihood that the agency will act again, either to raise or lower allowable levels. It may indicate that a similarly situated EPA will tighten the arsenic standard; it may lead the EPA to learn that the current level of protection is needlessly high and prompt a relaxation of those limits; or it may simply indicate that the EPA already has selected a near-optimal level of regulation and the status quo is likely to persist. Based on available quantitative data alone, an outside observer has almost no capacity to select among these possibilities.¹¹¹ Even the meaning of potential explanatory variables can change over time, and often rapidly. Democrats in Georgia in 1972 were very different than Democrats in

¹⁰⁸ Cf. Dan M. Kahan & Donald Braman, *Cultural Cognition and Public Policy*, 24 *YALE L. & POL'Y REV.* 149 (2006) (describing effect of differing cultural worldviews on risk perception and policy priorities); Masur, *supra* note 7, at 1041–47 (describing possibility of rapid shifts in government policy and potentially deleterious effects of such shifts).

¹⁰⁹ See Cass R. Sunstein, *Of Montreal and Kyoto: A Tale of Two Protocols*, 31 *HARV. ENVTL. L. REV.* 1, 13–14 (2007) (describing public reaction to discovery of ozone-depleting effects and subsequent industry reductions on production).

¹¹⁰ It is, of course, possible that some major change in law or technology—the repeal of speed limits or the advent of airbags—could have dramatic effects on accident rates or costs. But these sorts of events are uncommon and often predictable, and they produce new equilibria that again become susceptible to large-scale data collection and analysis. In the end, our point is a comparative one: Pricing automobile insurance has become a science due to the predictable nature of accident rates, but pricing regulatory insurance remains ineluctably an art.

¹¹¹ In other words, automobile accidents are independent events, while regulatory activities are not. Because of the idiosyncrasies inherent to the regulatory process, it is unlikely that insurers will have enough information to navigate the endogeneities involved in pricing insurance contracts.

Georgia in 1992, who were in turn very different than Democrats in Georgia in 2006.¹¹²

Third, the likelihood of regulation may well be endogenous to the rate of insurance. Suppose that a firm that manufactures a hazardous chemical insures against regulation of that chemical, and the insurance company includes a clause in the insurance contract barring the firm from lobbying.¹¹³ The existence of this insurance contract alters the probability of regulation: Congress or an agency may be subject to more or less lobbying activity, depending on whether the insurer chooses to lobby in the firm's stead. But an insurer writing a policy at time x may not know whether other industrial firms will choose to insure (with other insurance companies) at times $x+1$, $x+2$, and so forth, and thus may be unable to gauge the likelihood of regulation at future moments.

Finally, much of the information needed to make possible fine-grained analysis of the likelihood of some regulatory measure is not publicly available, and many of the relevant government processes are not transparent. Agencies are typically required to publish notice of proposed rulemaking and solicit comments before the rules go into effect, but this notice often comes late in the regulatory game, long after principal decisionmakers have decided to embark on a course of action.¹¹⁴ A significant amount of regulatory law is also made through adjudication, and potentially regulated firms may have little notice that an issue is even before a court, much less subject to regulatory change.¹¹⁵ Similarly, legislative actions are nominally public—a bill is

¹¹² Cf. Merle Black, *The Transformation of the Southern Democratic Party*, 66 J. POL. 1001, 1002–05 (2004) (describing diminishing power and presence of conservative whites in southern Democratic Party over time and rise of Republican Party as viable alternative).

¹¹³ As noted above, this type of clause is likely to be included in a regulatory insurance contract in order to avoid risks associated with moral hazard. See *supra* notes 76–80 and accompanying text.

¹¹⁴ See Beth S. Noveck & David R. Johnson, *A Complex(ity) Strategy for Breaking the Logjam*, 17 N.Y.U. ENVTL. L.J. 170, 177 (2008) (describing regulations as “a fait accompli” before traditional notice-and-comment rulemaking purports to solicit outside expertise); see also E. Donald Elliott, *Re-inventing Rulemaking*, 41 DUKE L.J. 1490, 1492–94 (1992) (arguing that formal public notice-and-comment procedures have little to no effect on rulemaking but are used primarily to build detailed record for judicial review after proposed rule has already “jelled” into its final form); Stephanie Stern, *Cognitive Consistency: Theory Maintenance and Administrative Rulemaking*, 63 U. PITT. L. REV. 589, 621–23 (2002) (suggesting that agencies can suffer from “lock-in,” or inflexible commitment to previously decided upon policy, which undermines “regulatory goals of participation and deliberation”).

¹¹⁵ See Peter L. Strauss, *Rules, Adjudications, and Other Sources of Law in an Executive Department: Reflections on the Interior Department's Administration of the Mining Law*, 74 COLUM. L. REV. 1231, 1238 (1974) (noting that decisions are often unavailable and that affected parties often lack notification); Russell L. Weaver, Chenery II: *A Forty-Year Ret-*

introduced, committees hold hearings, and votes are taken, all in the public eye. Of course, in reality much of the salient legislative work takes place behind closed doors in private meetings, and bills that appear publicly to concern one topic can rapidly be transformed to cover another.¹¹⁶ These informational problems are not insurmountable—after all, automobile insurers do not have access to the private thoughts of drivers in the moments before they lose concentration and cause accidents. But, at a minimum, they complicate efforts to analyze the probabilities of regulatory action based on observable factors by raising the possibility of omitted variable bias.

Given a sufficient quantity of data, skilled economists and actuaries might be able to sort through this extensive variation and arrive at reasonably predictive models. It may be that the likelihood of water quality regulation is highly correlated with the number of Democrats on a particular committee and the number of years until the committee chairman must run for reelection. But with a comparatively small number of regulatory actions in any given time period, there is simply no opportunity to amass the data necessary to render such calculations feasible or meaningful. Regulatory insurance would force insurers to radically alter the way in which they traditionally do business, moving toward more subjective evaluation of likely political outcomes. This is an activity for which they are ill-suited, and requires a set of skills that few people within these firms likely possess.¹¹⁷ And without either workable data or fine-grained political expertise, insurers simply will be unable to price regulatory contracts with any accuracy. In the presence of such high uncertainty, it is not surprising

rospective, 40 ADMIN. L. REV. 161, 165–66 (1988) (citing criticism of adjudicative process for lack of notice or public input).

¹¹⁶ See Brian Galle & Mark Seidenfeld, *Administrative Law's Federalism: Preemption, Delegation, and Agencies at the Edge of Federal Power*, 57 DUKE L.J. 1933, 1949–52 (2008) (arguing that internal congressional processes, including private conference committee meetings and strategic voting behavior, lead to legislative transparency that is “only skin deep” for all but most savvy and connected special interest groups).

¹¹⁷ Cf. W. Brinkley Dickerson, Jr. et al., *Note to SEC: “Reasonably Likely To Be Enacted?” You Have Got To Be Kidding!*, TROUTMAN SANDERS, Mar. 3, 2010, <http://www.troutmansanders.com/note-to-sec-reasonably-likely-to-be-enacted-you-have-got-to-be-kidding-03-03-2010> (citing Disclosure Related to Climate Change, Securities Act Release No. 9106, Exchange Act Release No. 61,469, 75 Fed. Reg. 6290 (Feb. 8, 2010)) (expressing disbelief that private firms could possibly gauge which regulations or legislation are likely to be enacted in given year). The SEC interpreted § 303 of Regulation SK, 17 C.F.R. § 229.303 (2009), to require management to “evaluate whether . . . pending legislation or regulation is reasonably likely to be enacted. Unless management determines that it is not reasonably likely to be enacted, it must proceed on the assumption that the legislation or regulation will be enacted.” Disclosure Related to Climate Change, 75 Fed. Reg. at 6296.

that insurance companies have shied away from entering the market.¹¹⁸

C. Government Facilitation of a Market for Regulatory Insurance

In many cases, government intervention can be useful in ameliorating the problems that prevent robust private markets from developing.¹¹⁹ Government-provided legal support for the insurance industry is nothing new, despite the fact that governmental involvement is hardly essential to the existence of traditional private insurance. For instance, criminal penalties for insurance fraud—which are publicly administered and funded—serve as a valuable supplement to private contract remedies.¹²⁰ The case for government intervention in the market for regulatory insurance is even stronger and more straightforward. If, in fact, it is a lack of transparency and certainty in governmental operations that causes pricing problems and inhibits the growth of a market for regulatory insurance, then the government might be able to remedy this failure through greater clarity and the provision of more complete public information.

Accordingly, Congress (or state legislatures) could take a number of steps to facilitate the pricing of insurance contracts on regulatory action. The legislature could force agencies to set agendas and priori-

¹¹⁸ We suspect that a similar explanation underlies the lack of catastrophe or terrorism insurance. Devastating hurricanes and crippling acts of terrorism are similarly infrequent, highly contingent events for which no reliable actuarial data exists. Lacking traditional predictive tools, insurers are likely reticent to gamble on uncertain outcomes with high variance.

¹¹⁹ Cf. Robert B. Ahdieh, *Making Markets: Network Effects and the Role of Law in the Creation of Strong Securities Markets*, 76 S. CAL. L. REV. 277, 336–41 (2003) (suggesting that government can play role in overcoming network effects that might impede development of robust private markets); Amitai Aviram, *Regulation by Networks*, 2003 BYU L. REV. 1179, 1184–95 (describing situations in which government regulation is and is not necessary to facilitate private ordering).

¹²⁰ In theory, increased sanctions for fraud help to deter fraudulent behavior by consumers, lowering costs for insurers and reducing the premiums that honest insurance customers must pay. Cf. Mark A. Cohen, *The Economics of Crime and Punishment: Implications for Sentencing of Economic Crimes and New Technology Offenses*, 9 GEO. MASON L. REV. 503, 506–07 (2000) (discussing fraud risk and attempts to prevent fraud as increasing costs for other consumers). Similarly, securities disclosure laws such as Sarbanes-Oxley represent governmental attempts to cure irrationalities, failures, and information asymmetries in the securities markets. See Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 11, 15, 18, 28, and 29 U.S.C.). Whether they are successful or necessary is a separate matter, and one on which we express no opinion here. Compare J. Robert Brown, Jr., *Criticizing the Critics: Sarbanes-Oxley and Quack Corporate Governance*, 90 MARO. L. REV. 309, 319–34 (2006) (arguing that it is too early to determine whether Sarbanes-Oxley has been successful), with Kate Litvak, *Sarbanes-Oxley and the Cross-listing Premium*, 105 MICH. L. REV. 1857, 1875–95 (2007) (finding that Sarbanes-Oxley has created greater costs than benefits for certain classes of firms as investors believed it would).

ties well in advance of action, deviating from a set agenda only upon a showing of particular need. Congress could curtail ex parte contacts and lobbying between regulated firms and policymakers, forcing a greater proportion of agency activity and decisionmaking into public view. Similarly, Congress could scale back the provisions of the APA that permit agencies to make rules without opportunity for notice and comment.¹²¹ Congress could even go so far as to limit the number of regulations that an agency could promulgate in a given year, restricting the flow of potential agency actions.¹²² And Congress or the courts could adjust the rules that allow numerous agencies, such as the National Labor Relations Board, to make policy through case-by-case adjudication, forcing regulatory actors toward the greater certainty of notice-and-comment rulemaking.

Similarly, Congress could alter its own behavior in order to provide greater predictability to regulated firms. It could rewrite the rules governing floor amendments to prohibit significant legislative modification from taking place outside of the more structured confines of committees. Congress could force committees to set their agendas further in advance in order to provide greater notice or require that sponsors publish potential amendments well in advance. Indeed, one could imagine a panoply of classic “good government” mechanisms that Congress could draw upon to make the processes of legislation more transparent and predictable to regulated firms and their putative insurers.¹²³

In the end, however, all of these measures would produce little more than marginal gains. There is nothing that the government can do to ameliorate the fundamental lack of regulatory data (other than dramatically increase the rate of regulation). And there is little that the government can do to improve the problems that attend extrapolation of one data point to another—for instance, the fact that arsenic regulation in Period 1 has ambiguous effects on arsenic regulation in Period 2.¹²⁴ Congress might demand a wholesale yearly reevaluation by every agency of every regulatory standard in place (and of all cur-

¹²¹ See 5 U.S.C. § 553(b)(3) (2006) (permitting rulemaking without notice and comment under certain circumstances).

¹²² Of course, significant costs would accompany these measures—costs that might well outweigh whatever benefits they would provide. We raise these possibilities only as a thought experiment, in the interest of analyzing what measures Congress might take to facilitate pricing of regulatory insurance.

¹²³ See generally Teresa Dale Pupillo, *The Changing Weather Forecast: Government in the Sunshine in the 1990s—An Analysis of State Sunshine Laws*, 71 WASH. U. L.Q. 1165 (1993) (cataloging state “sunshine laws” that provide for open government and greater public information on legislative and regulatory processes).

¹²⁴ See *supra* notes 111–12 and accompanying text.

rently unregulated areas as well), but it is highly unlikely that the benefits of such an effort would justify its enormous costs.

In addition, there are both practical and political limits to how predictable and transparent government action can become. Government must always be able to adapt to changing circumstances and respond to new problems, and so it is unrealistic to expect all agenda setting to take place years or even months in advance. And it is unreasonable to believe that all relevant policymaking could (or should) be forced into public view. Governments, like private firms, depend on being able to debate and decide certain questions in secret, and there are many regulatory decisions that agencies would be unwise to make in fully public fashion.¹²⁵ The unregimented nature of the democratic process is responsible for the preponderance of the pricing problems that inhibit a market for regulatory insurance from developing, and these problems cannot be cured without twisting the democratic process into unrecognizable shape.

In the end, we remain pessimistic about the prospects for the development of a thick market for regulatory insurance. The theoretical hurdles to pricing such contracts are significant, given the infrequency and incommensurability of regulation at the national or state level. Governmental options for facilitating the growth of such a market are inadequate and not well-targeted to the market's fundamental problems. Were the absence of such a market attributable to mere moral hazard or adverse selection problems, the government might be capable of curing the market's failure through increased dissemination of information or even mandatory disclosures of private conditions backed by penalties for fraud. But the deeper difficulties involved in accurately pricing such uncertain instruments cannot be so easily solved.

III

INFORMATION MARKETS AND REGULATORY DERIVATIVES

If we cannot trust governmental actors to provide efficient transition relief, and if the difficulties involved in properly pricing regulatory insurance frustrate private insurance markets, then perhaps traders could develop financial derivatives that would allow firms to hedge their regulatory risk. This Part explores that possibility.

¹²⁵ See, e.g., *DeRieux v. Five Smiths, Inc.*, 499 F.2d 1321, 1332 (Temp. Emer. Ct. App. 1974) (permitting agency to avoid notice-and-comment rulemaking because of fear that private parties would evade rules and render them useless); *Clay Broad. Corp. of Tex. v. United States*, 464 F.2d 1313, 1320 (5th Cir. 1971) (permitting agency to proceed without notice-and-comment rulemaking because of unacceptable delay that procedure would entail).

A. Regulatory Derivatives in Conception

A derivative is simply the genus name for any financial instrument that acquires a particular value on a given date based on some underlying event or set of circumstances. For instance, a derivative might be pegged to the S&P 500 Index and be worth one cent for each point at which the index is valued when it closes on December 31, 2010.¹²⁶ The originating financial institution simply specifies through contract language the terms upon which investors will value the derivative, and then investors can trade the derivatives on open financial markets as if they were typical stocks. The trading price will reflect the market's prediction as to the likelihood of the outcome in question.¹²⁷

Derivatives have proven useful for hedging risk in a variety of contexts in which traditional insurance is unavailable because of one type of market failure or another. For instance, farmers often fear wide swings in profits due to weather variations; a particularly dry year can cause immense damage to a crop and put an agricultural business at risk of failure. Standard crop insurance, however, which would compensate a farmer directly for a lean year, is expensive and difficult to purchase because risks tend to be systemic and thus "cannot be diversified away."¹²⁸ A farmer who has insurance might not make all reasonable efforts to protect a crop—particularly if those efforts are expensive—and it could be difficult for an insurer to monitor the farmer's behavior without stationing an auditor at the farm around the clock. Similarly, farmers might have private information regarding their own susceptibility to drought (the quality of their irrigation systems, for instance), and would opt for insurance only when their risk is especially high.

The solution is a weather-indexed derivative, pegged to the amount of rainfall or sunshine in a particular region during a particular growing season.¹²⁹ For instance, a derivative might be valued at \$1 for every inch of rainfall that eastern Kansas receives in June, July, and August. A farmer assesses how much money she stands to lose if rainfall drops below a certain level and trades enough derivatives to

¹²⁶ In a more straightforward fashion, a bank might create a derivative that is worth \$1 if the S&P 500 Index closes above 1000 points on December 31, 2010, and \$0 if it closes below 1000 points on that date. A derivative might also be written to be worth \$1 if the Boston Red Sox win the 2010 World Series and \$0 if they do not.

¹²⁷ For instance, if the median trader believes that there is a fifty percent chance that the Red Sox will win the World Series, the Red Sox derivatives will trade at around fifty cents.

¹²⁸ Miranda & Vedenov, *supra* note 93, at 650 (adding that high rates lead to decreased demand and adverse selection problems).

¹²⁹ *Id.* at 652. The derivative solves the moral hazard problem by acquiring value based on events (e.g., the weather) that no one can control, as opposed to events that are under the farmer's influence (e.g., the farmer's crop yield).

cover those losses. By buying and selling weather derivatives, a farmer can guarantee a consistent income across a period of years while paying only a small premium to smooth out the variance generated by dramatic swings in the weather.

Similarly, the Chicago Board of Trade sells derivatives pegged to the Case-Shiller Housing Index, an economic measure of the value of a median home in major metropolitan areas across the country.¹³⁰ Suppose a homeowner in San Francisco wishes to insure herself against a decline in the value of her home. Direct, first-party insurance is unavailable. It is too difficult to price the homeowner's loss unless she actually sells her house, and even a sale creates moral hazard problems because the homeowner and the insurance company may not agree on how much time and energy the homeowner should invest in extracting the best price or how long the house should remain on the market. Instead, the homeowner can purchase (or, more accurately, sell short) enough Case-Shiller futures to cover potential losses, figuring that declines in the median home price will be proportional to declines in the value of her own home. Because no single person can manipulate an entire housing market, Case-Shiller derivatives both solve the moral hazard problem and allow individuals to recover losses from declining home values without ever putting their homes up for sale.

It is easy to imagine how people might design and deploy derivatives as hedges against regulatory risk. A financial institution could simply create a wide variety of derivative products pegged to potential regulations: a derivative worth \$1 if the EPA acts to regulate a given chemical by a particular date and \$0 otherwise; a derivative pegged to the carbon tax rate imposed by Congress (conditional on Congress creating a carbon tax); and so forth. Regulated firms would calculate their own potential losses in the event of regulation and trade the derivatives in the quantities necessary to insure against those losses. As long as the derivatives were designed with adequate specificity, a firm should have little trouble locating an appropriate financial hedge.

In fact, these types of derivatives are functionally equivalent to already-existing information markets. Information markets offer traders the opportunity to place bets on future events with the object of generating information as to the probability of that event occurring. For instance, Intrade, an Irish information market, offers derivatives contracts based upon events such as whether the United States will

¹³⁰ See Standard & Poor's, Case-Shiller Home Price Indices, <http://www.standardandpoors.com/home/en/us> (follow "S&P/Case-Shiller Home Price Indices" hyperlink) (last visited Mar. 2, 2010).

impose domestic greenhouse gas limitations; whether a bill legalizing internet gambling will pass; and whether the federal government will provide an additional \$25 billion to U.S. automakers in 2009.¹³¹ Creating vast numbers of additional markets to cover a panoply of potential regulations would be trivial; the only cost would be in the careful definition and drafting of contract terms.¹³² Information markets are meant to act as predictors of future events, not as mechanisms for hedging substantial risks, but they will operate equally well as the latter. The fact that many such markets already exist makes deploying them as full-scale, effective sources of transition relief seem tantalizingly possible.

B. *The Failing Market for Derivatives*

1. *The Market's Absence*

Despite the obvious utility of derivatives as regulatory risk hedges, and despite the existence of some roughly equivalent information markets, these financial products are underdeveloped and underutilized to an extent that casts doubt on their long-term feasibility. There are currently no regulatory derivatives in existence, and even the few regulation-related information markets that have sprung up have garnered almost no attention. The three Intrade markets discussed in the previous Section have a total *lifetime* trading volume of less than \$10,000.¹³³ Without a robust market and substantial liquidity—in the billions or trillions of dollars—such products are useless as mechanisms for hedging regulatory risk.

The underdevelopment of a robust market for regulatory derivatives mirrors the similar absence of regulatory insurance. Information markets and derivatives, like standard insurance contracts, depend upon assessments of probability: A trader will only buy or sell a derivative contract if she can estimate the likelihood of the event in ques-

¹³¹ Intrade, <http://www.intrade.com> (last visited Jan. 19, 2010).

¹³² There is also the matter of legalizing these markets in the United States; Intrade's legal status is somewhat uncertain. The only operating real-money information market whose legality is not in question in the United States is the Iowa Electronic Markets, run by the University of Iowa's Tippie College of Business. See Iowa Electronic Markets, <http://www.biz.uiowa.edu/iem/> (last visited Mar. 21, 2010). There is also a new information market that plans to allow participants to bet real money on Hollywood box office figures. See Joseph Plambeck, *A Place To Bet Real Money on Movies*, N.Y. TIMES, Mar. 10, 2010, available at <http://www.nytimes.com/2010/03/11/business/media/11futures.html>. Of course, this market will be of little interest to regulated firms outside of Hollywood.

¹³³ Intrade, *supra* note 131 (use "Market Search" to locate market, then look at value in "Vol" column of displayed table). This low trading volume is potentially due to a number of factors, including the questionable legality of trading on Intrade and the lack of interest in those particular markets. Still, the extremely modest volume is striking and likely indicative of larger problems.

tion to some degree of certainty.¹³⁴ Accordingly, firms will struggle to price these financial products accurately for all of the same reasons that insurance companies cannot price standard first-person regulatory insurance.¹³⁵ Regulated firms will be loath to invest substantial resources in ventures shrouded in such uncertainty; after all, the point is to hedge risk, and trading in uncertain regulatory derivatives has a great deal more in common with gambling.

Derivatives markets function differently, however, than first-party insurance markets in important ways. Adverse selection problems are unknown in derivatives markets because the identities of the participants are irrelevant. How much the party on the other side of the transaction stands to lose if the government regulates does not affect the costs to a given derivatives trader. Similarly, parties could easily avoid any threat of correlated risks simply by avoiding purchasing too large a bundle of linked derivatives.

On the other hand, moral hazard problems are greater in the context of derivatives trades than in that of first-person insurance because it is difficult for trading parties to write sophisticated contracts. As we note above, insurance firms can solve the moral hazard problem by writing contracts that bar insured parties from lobbying.¹³⁶ On a derivatives market, this is not so easy. In order for the derivatives contracts to be tradable on an exchange, the contracts must be standardized. The parties will not be able to negotiate them on an individualized basis. Even if the standard derivatives contract specified that neither the purchaser nor the seller may lobby—a condition that most parties are unlikely to accept—the holders of these derivatives are often difficult to identify after the fact. Accordingly, it is likely that a thick derivatives market does not exist due to some combination of the same pricing problems that plague first-party insurance and the threat of moral hazard.

The government could, of course, attempt to catalyze such a market on its own by acting as a broker. It could sell fixed-price bundles of derivatives—for instance, a derivative worth \$1 if the EPA regulates carbon dioxide packaged with a derivative worth \$1 if it does not—in the hope that firms would then trade those financial products among themselves.¹³⁷ Or it could auction regulatory derivatives in the same manner as it does Treasury bills and allow the auction to set the

¹³⁴ *Cf. supra* Part II.A (discussing need for regulatory insurance in order to encourage investment).

¹³⁵ *See supra* Part II.B.4 (discussing difficulty of pricing regulatory insurance).

¹³⁶ *See supra* notes 76–80 and accompanying text.

¹³⁷ This is the approach currently taken by the Iowa Electronic Markets. For an analysis of different methods for structuring prediction markets, see Michael Abramowicz, *Infor-*

price.¹³⁸ Yet none of these solutions will cure endemic pricing or moral hazard problems, and none will induce the necessary levels of participation if firms cannot already price the derivatives accurately. As a class, derivatives are useful mechanisms for solving certain types of market failures and for making insurance contracts tradable on open markets. They are not panaceas for preexisting difficulties in pricing risk.¹³⁹

2. *A Hybrid Proposal*

While we are not optimistic that a market solution exists to the problems inhibiting the growth of a regulatory derivatives market, we believe that the most promising avenue lies with a hybrid system of information markets and insurance. As they currently exist, information markets cannot produce sufficient liquidity to serve as effective mechanisms for hedging regulatory risk. Yet firms might nonetheless be able to employ them as a way of facilitating private first-party insurance.

Even under conditions of low liquidity, there exist mechanisms for generating predictions (and incentivizing investment in accurate forecasts) in information markets. Firms can subsidize participation in information markets—providing individuals with money that they can use to place bets in the market—in order to induce parties with pri-

mation Markets, Administrative Decisionmaking, and Predictive Cost-Benefit Analysis, 71 U. CHI. L. REV. 933, 948–49 (2004).

¹³⁸ See U.S. Dep't of the Treasury, *How Treasury Auctions Work*, <http://www.treasurydirect.gov/instit/auctfund/work/work.htm> (last visited Mar. 21, 2010).

¹³⁹ Firms might also attempt to hedge risk by engaging in more unconventional behavior, such as purchasing other companies whose success is negatively correlated with their own. For instance, imagine that Ford Motor Company is considering making substantial investments in designing vehicles powered by natural gas. If executives at Ford fear that greenhouse gas regulation could raise the price of natural gas and diminish consumer interest in the cars, they might consider purchasing a company that manufactures wind energy turbines as a hedge. Yet this option is hardly straightforward. At the limit, it might commit a firm to owning and running another company engaged in a completely separate—even diametrically opposed—business. It is surely not efficient for executives at an automobile company to manage a wind energy firm.

Even if nothing more than the purchase of stock were involved, firms still face significant hurdles in finding the proper hedge. Imagine that, instead of buying a wind energy corporation, Ford instead makes a significant investment in the firm. Ford would now be forced to hedge against losses by that company that have nothing to do with greenhouse gas regulation—for instance, a general downturn in demand for wind turbines, or an increase in the price of a key production input. These hedges might in turn create further risks, which Ford would cover with additional investments. This in turn would create further risks, and so forth. In essence, a firm would be forced to acquire a highly complex bundle of securities in a quixotic effort to isolate a specific business risk. It is thus not surprising that this type of behavior is not widely observed.

vate information to participate.¹⁴⁰ In the alternative, a sophisticated information market employing either a dynamic pari-mutuel design¹⁴¹ or a market scoring system¹⁴² will, in theory, operate effectively even if only one individual participates. These designs can accommodate any trading volume, large or small.¹⁴³ Information markets of these types could turn inputs from even small numbers of interested individuals into aggregated predictions, assuming that the individuals brought at least small amounts of information to the market. If these information markets were viewed as sufficiently accurate—a significant caveat, we recognize—insurance companies might feel comfortable in pricing regulatory insurance according to their predictions. The effect would be to bootstrap an extremely large first-party insurance market with a small but reliable prediction tool.

As an initial matter, one might wonder why insurance companies would ever believe that an information market was accurate enough to fill a pricing function where derivatives markets and the insurers themselves had failed. The answer is that information markets might chart a middle course between these two high-volume alternatives. As an alternative to internally priced insurance, they might be substantially more accurate at predicting outcomes than firm experts (as they have proven to be in other contexts).¹⁴⁴ And in comparison to derivatives markets, they might be able to succeed with vastly smaller investments of capital. Derivatives markets depend on large numbers of firms being willing to invest substantial sums in order to provide the

¹⁴⁰ See Abramowicz, *supra* note 137, at 961–92 (analyzing usefulness of subsidizing prediction markets); Michael Abramowicz & M. Todd Henderson, *Prediction Markets for Corporate Governance*, 82 NOTRE DAME L. REV. 1343, 1351–53 (2007) (describing process of subsidizing corporate prediction markets). Ideally, the relevant governmental policy-makers—agency employees and congressional staff—would be involved, although such efforts might be foiled by public corruption and gift laws. See 5 U.S.C. § 7353 (2006) (prohibiting gifts to federal employees); 18 U.S.C. § 201 (2006) (federal public corruption law).

¹⁴¹ See David M. Pennock, *A Dynamic Pari-Mutuel Market for Hedging, Wagering, and Information Aggregation*, in EC '04: PROCEEDINGS OF THE 5TH ACM CONFERENCE ON ELECTRONIC COMMERCE 170, 171–78 (2004) (describing design of pari-mutuel information market, which can continuously incorporate information and is highly liquid and risk-free for market institutions).

¹⁴² See Robin Hanson, *Combinatorial Information Market Design*, 5 INFO. SYS. FRONTIERS 107, 109–13 (2003) (describing design of market scoring system, which aims to overcome incentive problems for information acquisition and sharing).

¹⁴³ See Abramowicz, *supra* note 137, at 959–60 (describing operation and virtues of market scoring systems); Abramowicz & Henderson, *supra* note 140, at 1352–53 (same); Pennock, *supra* note 141, at 171 (describing “infinite liquidity” of pari-mutuel markets). A full description of the operation of these types of markets is beyond the scope of this Article. For further discussion, see sources cited *supra* notes 141–43.

¹⁴⁴ See Abramowicz & Henderson, *supra* note 140, at 1346 (reviewing literature on prediction markets’ success).

liquidity necessary to hedge business risk, and firms likely feel far too vulnerable to trade on the information they possess. However, even a small, risk-averse cadre of individuals with valuable private information and little access to capital could generate reasonable predictions. A congressional aide who knows the likely fate of a bill cannot provide enough liquidity to allow a major company to hedge its risk, but she might be able to orient an information market upon which a major insurer could then rely. It is as if insurance firms would be hiring the federal bureaucracy for their risk analysis divisions.

We hasten to add that this suggestion is fraught with other significant difficulties. As we note above, it might be impossible for the government employees in possession of the best information to participate.¹⁴⁵ Information markets might also be highly subject to manipulation if the price of vast quantities of insurance contracts turned on far fewer dollars in informational trades.¹⁴⁶ And, of course, pricing problems and moral hazard issues might simply be insurmountable. Those concerns notwithstanding, this hybrid proposal may be the most promising of an unattractive set of options, and it would be relatively inexpensive to attempt a small experiment. There is thus little reason not to search for further innovative solutions.¹⁴⁷

Nevertheless, the moribund private market for regulatory insurance and derivatives seems unlikely to provide a satisfactory solution to the problem of regulatory risk. Having found few promising avenues within the private markets, we turn our attention in the next Part to possible mechanisms by which the government might provide meaningful transition relief.

IV INSTITUTIONAL STRUCTURE AND LEGAL TRANSITION RELIEF

Based upon the discussion in Parts II and III above, the rise of a private market adequate to provide substantial transition relief is unlikely. In the absence of a private market for transition relief, the

¹⁴⁵ Nonetheless, it might be interesting to witness the newly incentivized newsgathering by Washington, D.C., reporters if such a system were in place.

¹⁴⁶ *Cf.* Posting of Jonathan Masur to University of Chicago Law School Faculty Blog, *Strategic Manipulation of the Information Markets*, <http://uchicagolaw.typepad.com/faculty/2008/10/just-over-a-wee.html> (Oct. 6, 2008, 01:40:13 PM) (describing potential manipulation of intrade political markets during 2008 election).

¹⁴⁷ In addition, a relatively accurate information market could produce other benefits, even if it never generated sufficient liquidity to allow firms to hedge. If the market reflected a high probability of legal change, firms could respond accordingly in anticipation. The same would be true for regulatory insurance, were it to exist. If premiums reflected a high likelihood of regulation, firms could anticipate legal change.

government remains a viable option. As we explained in Part I.C, however, there are reasons why we would not expect the government to excel at providing appropriate transition relief. In particular, the government lacks adequate information and is subject to capture and lobbying. Our goal in this Part, then, is to consider the institutional structures that will best accentuate the government's advantages and mitigate its shortcomings.

We proceed in three stages. First, we unbundle the various steps that compose transition relief, and we explain how the decisions or decisionmaking involved in some of those steps differ from those involved in other steps (and from decisions and decisionmaking in the ordinary regulatory context). We organize these various steps along a continuum ranging from broad, sweeping judgments to narrow, individualized determinations. We argue that broad decisions are more likely to involve substantial value judgments, while narrow ones are more likely technocratic and value-independent. Second, we offer a typology of various government actors—the legislature, an executive agency, the judiciary, and an independent agency—and discuss the benefits and drawbacks typically associated with each institution, with reference to the standard considerations of expertise, democratic accountability, and the threat of capture. We also explain how many of these benefits and drawbacks may have particular prominence in the context of legal transition relief. Third, we offer recommendations on institutional structure based on the analysis in the first and second Sections. This analysis is necessarily simplified; a full consideration of the near-infinite variety (and relative merits) of government institutions is well beyond the scope of this Article. Nevertheless, we believe that the analysis will allow us to obtain some purchase on the question of which type of institutional actor is best positioned to decide various questions related to transition relief.

For ease of exposition, we will summarize three important points on which our conclusions rest. First, some decisions regarding transition relief are more akin to plenary lawmaking. These decisions affect numerous societal actors and draw their resolution from broad societal values.¹⁴⁸ Here, one might think of the broad decision of whether transition relief is warranted in the first instance. Other decisions are more in the nature of applications of an existing legal structure to particular private actors. Numerous issues that arise in transition relief settings are highly technocratic (as opposed to value-laden) in this

¹⁴⁸ *Cf.* *Bi-Metallic Inv. Co. v. State Bd. of Equalization*, 239 U.S. 441, 445 (1915) (holding that due process right to direct voice in adoption of policy does not attach to broad legislative decisions that affect large swaths of population).

sense: for instance, whether a modification of an existing structure should subject the structure to regulation as if it were new construction;¹⁴⁹ whether a transaction was consummated before or after the advent of a new legal regime;¹⁵⁰ and how to allocate limited funds or grandfathering rights.¹⁵¹

Second, consider the role of expertise in making these narrow, technocratic decisions. To be sure, expertise in the particular area of law at issue is of some value. But that kind of expertise is often exceeded in value by more general expertise in meting out transition relief. Questions that arise in these decisions transcend particular areas of law. The question of whether a modification should be treated as a new construction arises in environmental law,¹⁵² land use law,¹⁵³ and disabilities law,¹⁵⁴ to name just a few areas. The question of whether a transaction should be deemed consummated before or after a legal change takes effect arises in tax law¹⁵⁵ and bankruptcy law.¹⁵⁶ And the question of how to distribute limited funds or grandfathering rights arises in environmental law¹⁵⁷ and natural resources law.¹⁵⁸ This strongly suggests that a single government agency could accumulate considerable relevant expertise were it

¹⁴⁹ See, e.g., Nash & Revesz, *supra* note 2, at 1713–15 (describing how “new source review” under Clean Air Act applies where modification to existing facility which otherwise would be grandfathered is “substantial”).

¹⁵⁰ See, e.g., Logue, *supra* note 7, at 1176–80 (describing difficulty of deciding this question in context of changes to tax law).

¹⁵¹ See, e.g., Jonathan Remy Nash & Richard L. Revesz, *Markets and Geography: Designing Marketable Schemes To Control Local and Regional Pollutants*, 28 *ECOLOGICAL L.Q.* 569, 585 (2001) [hereinafter Nash & Revesz, *Markets and Geography*] (describing methods by which permits are grandfathered under Clean Air Act’s national sulfur dioxide trading program).

¹⁵² See *supra* note 149 and accompanying text.

¹⁵³ See PATRICK J. ROHAN, *ZONING AND LAND USE CONTROLS* § 41.03[4]–[5] (2009) (discussing grandfathering in zoning laws).

¹⁵⁴ See, e.g., 42 U.S.C. § 12183(a)(2) (2006) (providing that facility owners shall make alterations “to the maximum extent feasible” so that “the path of travel to the altered area and the bathrooms, telephones, and drinking fountains serving the altered area[] are readily accessible to and usable by individuals with disabilities” but only “where such alterations . . . are *not disproportionate* to the overall alterations in terms of cost and scope” (emphasis added)); 28 C.F.R. § 36.403(f)(1) (2009) (“Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the primary function area.”).

¹⁵⁵ See *supra* note 150.

¹⁵⁶ See, e.g., Stephen W. Sather, *The Great Bankruptcy Rush of 2005 and Its Aftermath: The View from Texas*, *AM. BANKR. INST. L. REV.*, Sept. 2006, at 34, 34 (“[T]he signing of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 . . . set off a massive rush to the bankruptcy courts.”).

¹⁵⁷ See *supra* note 151 and accompanying text.

¹⁵⁸ See generally Nash, *Allocation and Uncertainty*, *supra* note 7 (discussing methods of allocating finite natural resources).

charged with handling such transition relief decisions across various legal specialties.

Third, private actors will naturally be willing to invest money and time to obtain transition relief, and government actors will face an incentive to mete it out in return for private benefits.¹⁵⁹ A government actor that is charged with distributing transition relief—even in accordance with some set legal scheme—likely will enjoy some discretion in making those decisions.¹⁶⁰ The less that a government body is subject to outside influence, the less it will fall prey to private rent-seeking in the allocation of transition relief. Accordingly, we conclude that an independent agency might be best situated to make some decisions related to the provision and application of transition relief.

A. *The Composite Steps of Transition Relief*

Our evaluation of institutional design involves decomposing the process of granting legal transition relief into constituent steps. We do this for two reasons. First, different steps call for different types of decisions and modes of decisionmaking; it may be that some institutional actors are better situated to undertake certain steps.¹⁶¹ Second, in order to establish some checks on any one actor's authority (and thus at least to raise the cost of successful lobbying), it may be desirable to vest different actors with authority over different parts of the process.

There are several steps in the process of granting transition relief. The first is the determination of whether there is any justification sufficient to warrant granting transition relief. Assuming some transition relief is found to be appropriate, the second step is to decide what form transition relief will assume. A third step is to determine who will in fact be entitled to relief and who will not.

We unpack these steps in the following subsections. In doing so, we describe the steps involved in transition relief along a continuum ranging from broad, sweeping choices to narrow, individualized decisions. The former category is associated with developing a rule; the latter with simply applying a rule that already has been crafted. Deci-

¹⁵⁹ See *supra* notes 51–53 and accompanying text (discussing possibility of capture in transition relief context).

¹⁶⁰ Cf. *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 472–76 (2001) (rejecting argument that directive requiring agency to set standard to protect public health failed to provide “intelligible principle” against which to gauge agency action, thus indicating that legislative delegation was proper).

¹⁶¹ Cf. B. Timothy Heinmiller, *The Politics of “Cap and Trade” Policies*, 47 NAT. RESOURCES J. 445, 449–51 (2007) (breaking process of implementing cap-and-trade emissions allowance regime into three steps—setting cap, allocating allowances, and then permitting trading—and noting that each step raises distinct political pressures and concerns).

sionmaking of the former type is likely to be heavily value-laden—that is, to turn upon normative values and political choices—while decisionmaking of the latter type is likely to be more technocratic.¹⁶² This stylized approach, of course, represents a significant oversimplification of the nuances of regulatory decisionmaking, and we do not mean to claim that this is the best or only way of conceptualizing the processes involved in transition relief. We believe only that viewing the steps involved in transition relief through this lens sheds substantial light on the institutional actors best positioned to manage its various aspects.¹⁶³

1. *Deciding Whether Transition Relief Is Warranted*

The step of deciding whether transition relief is warranted—in keeping with the general aversion to transition relief discussed above in Part I.A and based upon the criteria justifying transition relief that we identified above in Part I.B—is not dissimilar from the issues that confront the legislature and regulators in structuring the new legal regime itself. First, the decisions are heavily value-laden.¹⁶⁴ Questions of legitimacy¹⁶⁵ and fairness¹⁶⁶ are quite common in developing a new legal regime, as is the issue of the extent to which the new regime may affect the behavior of societal actors, perhaps especially with respect to investment decisions.¹⁶⁷ Indeed, even the decision of whether to grant transition relief and secure the new legal regime, or to deny it

¹⁶² See *supra* notes 148–51 and accompanying text.

¹⁶³ In addition, we acknowledge that merely because we can disaggregate the constituent steps of affording transition relief does not mean in practice that government actors in fact divide the process in this way, or that responsibility for the steps is divvied up among multiple actors. For example, the first phase of the sulfur dioxide emissions allowance trading program under the Clean Air Act Amendments of 1990 involved Congress deciding (i) that allowances would be distributed via grandfathering, (ii) exactly which industrial plants would receive allowances, and (iii) exactly how many allowances each plant would receive. See Lisa Heinzerling, *Selling Pollution, Forcing Democracy*, 14 *STAN. ENVTL. L.J.* 300, 328–32 (1995) (discussing evidence of groups influencing Congress in establishing Clean Air program); Paul L. Joskow & Richard Schmalensee, *The Political Economy of Market-Based Environmental Policy: The U.S. Acid Rain Program*, 41 *J.L. & ECON.* 37, 51–58 (1998) (same); Nash & Revesz, *Markets and Geography*, *supra* note 151, at 585 (summarizing initial allowance allocation). Some existing practices, of course, may not be normatively desirable. Our point is simply that disaggregation allows us to consider what distributions of responsibility would be normatively preferable.

¹⁶⁴ See, e.g., *Alliance Against IFQs v. Brown*, 84 F.3d 343, 352 (9th Cir. 1996) (discussing value of transition relief).

¹⁶⁵ See *supra* notes 37–39 and accompanying text (discussing legitimacy as possible justification for transition relief).

¹⁶⁶ See *supra* notes 40–42 and accompanying text (discussing fairness as possible justification for transition relief).

¹⁶⁷ See *supra* notes 24–34 and accompanying text (discussing investment incentives as possible justification for transition relief).

and thus catalyze opposition to the new regime, is itself heavily value-laden.¹⁶⁸ Accordingly, decisionmaking as to whether transition relief is warranted is best characterized as broad rather than narrow. The decision is at a high enough level of generality that it avoids confronting specific questions as to whether particular actors will get relief and what form that relief will take.

2. *Deciding upon the Form and Quantity of Transition Relief*

Once a decision has been reached to offer some transition relief, the next step is to consider how much relief is to be offered and the form in which it is to be offered. The answer to the second question may affect the first: If the government uses cash to pay directly at least some people who used to engage in the activity, then the question of how much relief there will be reduces to the amount of funds that will be made available. On the other hand, if the government grandfather rights, then the government may decide to cap expressly the total extent to which actors might use the grandfathering rights—that is, to cap the total amount of grandfathered activity allowed going forward—or it might decide simply to limit the total number of actors who receive grandfathered rights (with any such actor free to engage in the prior behavior as much as he or she would like), thus limiting the total amount of grandfathered activity only indirectly.

Whether the government conveys relief under a cap-and-trade system, under a grandfathering regime, or by means of compensation, there is a strongly value-laden core decision concerning the acceptable amount of the regulated activity that should be allowed to continue—or the appropriate amount of money to compensate those barred from previously acceptable activity.¹⁶⁹ These types of decisions will inevitably involve tradeoffs between government priorities, and between economic concerns and other considerations (such as health and safety) that the regulation was meant to address in the first instance. Because of the incentive effects created by transition relief, every decision either to provide or withhold such relief—and decisions as to the form it will take—will influence both the reach of the regulatory

¹⁶⁸ See Levmore, *supra* note 7, at 1665–67 (discussing tradeoffs involved in decision to compensate politically powerful losers when enacting new regulatory scheme).

¹⁶⁹ Cf. Ackerman & Stewart, *supra* note 49, at 1353 (lauding tradable pollution permit regimes over command-and-control regimes to achieve environmental goals on ground that former regimes vest important decision of how much overall pollution should be allowed with legislature, thus enhancing democracy); Sunstein, *Administrative Substance*, *supra* note 49, at 636 (same); Sunstein, *Democratizing America*, *supra* note 49, at 967 (same).

program (and thus its effects) and the economic impact on private parties.

As an example, consider a decision to limit emissions of a pollutant using a cap-and-trade system.¹⁷⁰ A higher total emissions cap will lead to a smaller environmental impact but a smaller economic impact as well. On the other hand, a lower emissions cap will induce greater environmental protection at the cost of a greater economic burden. The impact, in terms of both environmental protection and economics, may also vary across time: Some cap-and-trade programs are designed to phase out particular emissions and thus have caps that progressively decrease on a yearly basis,¹⁷¹ but many programs simply put in place a cap that persists for many years.¹⁷² Alternatively, transition relief in the form of cash transfers to affected firms would not substantially diminish the impact of pollution caps or alter the behavior of private parties, but it would drain the government fisc.¹⁷³ Choosing between different types of transition relief structures thus requires tradeoffs among a wide variety of public policy considerations.

3. *Deciding Who Gets Transition Relief*

Decisions as to who should receive transition relief fall into two categories: broader decisions as to the inclusion or exclusion of classes of recipients and narrower case-by-case decisions that determine the ultimate allocation of transition relief. No matter what the form of transition relief, questions as to which classes of actors should receive relief will arise. For example, programs that protect fisheries by capping annual fishing catches raise questions as to whether fishing boat owners alone, or, in addition, those who work on the boats, should receive individual fishing quotas.¹⁷⁴ Similarly, if the government uses

¹⁷⁰ In a cap-and-trade system, the government caps the total acceptable amount (over a period of time, usually a year) of behavior that the new legal regime otherwise outlaws. It then divides that total cap among a number that it distributes to societal actors, who then may trade them. Nash, *supra* note 47, at 321. Each permit authorizes its holder to engage in a set amount of the restricted behavior, and only those with permits may engage in the behavior at all. *Id.*

¹⁷¹ The EPA's tradable permits program, though not technically an emissions regulation program, phased out the use of lead in gasoline during the 1980s. See Nash, *supra* note 49, at 488–89.

¹⁷² See Lesley K. McAllister, *The Overallocation Problem in Cap-and-Trade: Moving Toward Stringency*, 34 COLUM. J. ENVTL. L. 395, 407 (2009) (describing cap employed by Chicago Emissions Reduction Market System).

¹⁷³ Cf. *supra* note 59 (arguing that fixed insurance payments will not change firms' incentives at margin).

¹⁷⁴ See *Alliance Against IFQs v. Brown*, 84 F.3d 343 (9th Cir. 1996) (adjudicating litigation challenging allocation of fisheries quotas). In *Alliance*, the court considered a chal-

compensation to effect transition relief, should boat owners alone—or more generally those with capital investments—receive compensation, or should the government also make payments to those who work on the boats? Should transition relief be limited to firms who suffer directly under a new legal regime,¹⁷⁵ or should employees¹⁷⁶ or consumers receive some sort of relief as well? And of course there may be questions as to which particular actors within these groups should receive transition relief. These questions are narrower and more individualized than the decisions we have discussed to this point.

Put another way, the remaining task is to allocate the amount of transition relief authorized among those actors whom the government has designated as possible recipients. This allocation task generally will be fairly technocratic: It will involve allocating transition relief according to general directives that already have been established. Because it involves final decisions as to winners and losers, the allocation task is almost certain to invite substantial lobbying and capture efforts—perhaps even more than attend other stages in the process.¹⁷⁷

lenge by workers that the council's allocation of quota shares to owners and lessees but not workers was not, as the governing statute required, "fair and equitable." *See id.* at 348 (quoting 16 U.S.C. § 1851(a)(4)(A) (2006)). Though it described the argument as "sensible," *id.*, the court proceeded to reject the argument on two grounds. First, the statute did not make the "fair and equitable" requirement the sole criteria with which the council had to comply. *See id.* at 348–49. Second, the council's logic that owners and lessees have put capital at risk and thus deserve quota shares was sound: "The Secretary thought that the problem of overfishing resulted more from investment in boats than occupational choices of fishermen, so the administrative remedy should be measured by ownership and leasing of boats." *Id.* at 349.

¹⁷⁵ In the context of international trade agreements, "safeguards relief" provisions provide loopholes that countries may invoke when a domestic industry is put in a precarious economic position by the implementation of a new trade accord. For discussion, see, for example, Alan O. Sykes, *The Persistent Puzzles of Safeguards: Lessons from the Steel Dispute*, 7 J. INT'L ECON. L. 523, 526–38 (2004) (describing provisions in international trade agreements and as implemented under U.S. law and discussing how such provisions work).

¹⁷⁶ For example, trade adjustment assistance programs provide protection to those who suffer disemployment by virtue of new free trade agreements. *See* 19 U.S.C. § 2271(a) (2006) (establishing mechanism by which adversely affected workers may apply for relief); Paul T. Decker & Walter Corson, *International Trade and Worker Displacement: Evaluation of the Trade Adjustment Assistance Program*, 48 INDUS. & LAB. REL. REV. 758, 759–60 (1995) (providing overview of Trade Adjustment Assistance program); *see also* Joskow & Schmalensee, *supra* note 163, at 50 (describing controversy over Byrd Amendment to 1990 Clean Air Act that would have provided benefits to coal mine employees who lost their jobs); Arnold W. Reitze, Jr., *The Legislative History of U.S. Air Pollution Control*, 36 Hous. L. REV. 679, 721–22 (1999) (same).

¹⁷⁷ *See* Heinmiller, *supra* note 161, at 457 ("Considering the high stakes nature of the allocation process, users and potential users are strongly motivated to protect their essential self-interests, so the allocation process is best understood as a distributive conflict between rival user groups presided over by governmental regulators . . . [R]ival users . . . are typically multiple and highly fragmented.").

In these senses, the analysis required here will differ fundamentally from the other decisions that we have described.

Each of the three component steps that we identify could in theory be undertaken by a different government actor: the legislature, an executive branch agency, the judiciary, or an independent agency. In each of the succeeding subsections, we consider the benefits and drawbacks associated with each such government actor. We continue to assume (a) that private insurance is unavailable, and (b) that either Congress or an executive branch agency has seen fit to enact a new legal regime.¹⁷⁸

B. Government Actors

We turn now to consideration of the potential government managers of transition relief. There is, of course, an extensive literature on the comparative advantages of legislatures, courts, and agencies,¹⁷⁹

¹⁷⁸ The legislative and executive branches are not the only branches of government that may promulgate a new legal regime. When a court announces a new decision, that announcement itself may raise questions of legal transition relief. *See infra* notes 196–98 and accompanying text. This type of setting lies beyond the scope of this Article for several reasons. First, courts announcing a new interpretation of law may believe, alternatively, that they are actually announcing a “new rule” of law, or simply that they are “clarifying” preexisting law. The latter case presumably does not raise questions of transition relief. Second, to the extent that a court decision may have retroactive application, it traditionally has been the court itself that determines the retroactive effect of its ruling. *See, e.g.*, *Harper v. Va. Dep’t of Taxation*, 509 U.S. 86, 100 (1993) (finding prior ruling to have retroactive effect and rejecting state court’s ruling on issue of retroactivity). Indeed, efforts by other branches to dictate retroactive effects of laws on court decisions have met with court disapproval on separation of powers grounds. *See Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 217–19 (1995) (declaring unconstitutional congressional attempt to use new, extended statute of limitations to open cases already dismissed under old statute of limitations and now-final judgments). *But cf. Danforth v. Minnesota*, 128 S. Ct. 1029 (2008) (holding that state courts were free to apply new constitutional rule of criminal procedure retroactively even where federal courts would not). Third, settings where courts announce new rules of law lie beyond the paradigmatic “new legal regime” setting with which we are concerned in this Article: We are interested here in settings where there is a new, broad legal regime affecting numerous actors. Courts rarely announce such regimes and, to the extent they do so, it is usually a matter of consequence, not design.

¹⁷⁹ *See generally* Frank B. Cross, *Shattering the Fragile Case for Judicial Review of Rulemaking*, 85 VA. L. REV. 1243, 1327–33 (1999) (arguing for complete abandonment of judicial review of agency rulemaking); Colin S. Diver, *Statutory Interpretation in the Administrative State*, 133 U. PA. L. REV. 549, 592–98 (1985) (concluding that courts should defer to agencies where Congress has endowed agencies with significant policymaking responsibility); Cynthia R. Farina, *Statutory Interpretation and the Balance of Power in the Administrative State*, 89 COLUM. L. REV. 452, 467–526 (1989) (arguing that judicial deference to agencies is unconstitutional); Matthew C. Stephenson, *Legislative Allocation of Delegated Power: Uncertainty, Risk, and the Choice Between Agencies and Courts*, 119 HARV. L. REV. 1035, 1049–70 (2006) (arguing that agencies tend to be consistent across issues but variable over time, while courts tend to be consistent across time but variable across issues, and that Congress should take these features into account in structuring delegations); Cass R. Sunstein, *On the Costs and Benefits of Aggressive Judicial Review of*

and we intend to rely upon it here. In so doing, we assess the suitability of government actors as providers of transition relief along familiar administrative metrics, including expertise, political accountability, and susceptibility to capture. In particular, we consider the strengths and weaknesses of various institutional actors with reference to the broad and narrow questions of transition relief detailed above. No government actor will be the perfect decisionmaker at every step. Our undertaking here is simply to identify comparative advantages among those institutions that may render some institutions preferable in certain contexts.

1. *The Legislature*

Congress is designed to be a democratic actor,¹⁸⁰ accountable to the electorate.¹⁸¹ The legislature is thus well positioned to make broad, value-laden judgments, and in particular, to assess claims that the government should afford transition relief on grounds of fairness or legitimacy. At the same time, there are disadvantages to vesting control over legal transition relief with Congress. First, Congress may act not in the public good, but rather to obtain rents.¹⁸² This is especially problematic in the context of legal transition relief, given the extent to which such relief is often the product of rent-seeking. Thus, for example, commentators have explained how Congress's monopoly over the allocation of grandfathered sulfur dioxide emissions allowances under the 1990 Clean Air Act Amendments led to substantial, and successful, rent-seeking.¹⁸³ As discussed above, the incen-

Agency Action, 1989 DUKE L.J. 522, 522–29 (evaluating costs and benefits of courts as legal authority).

¹⁸⁰ Cf. *supra* note 169 (identifying commentators who advocate, on grounds of democratic accountability, congressional determination of caps in cap-and-trade pollution programs).

¹⁸¹ For a critical examination, see Jane S. Schacter, *Digitally Democratizing Congress? Technology and Political Accountability*, 89 B.U. L. REV. 641, 643–48 (2009), which questions whether Congress is as accountable as it could be.

¹⁸² See, e.g., Nathaniel O. Keohane, Richard L. Revesz & Robert N. Stavins, *The Choice of Regulatory Instruments in Environmental Policy*, 22 HARV. ENVTL. L. REV. 313, 322–25 (1998) (describing legislation as product of supply by legislators and demand by special interests); Saul Levmore, *Two Stories About the Evolution of Property Rights*, 31 J. LEGAL STUD. S421, S425–29 (2002) (describing argument that property systems are designed to benefit well-organized interest groups); Thomas W. Merrill, *Explaining Market Mechanisms*, 2000 U. ILL. L. REV. 275, 280–81 (describing argument that legislation tends to be designed to reward politically powerful groups).

¹⁸³ See Heinzerling, *supra* note 163, at 328–32 (explaining that much of allocation of emissions allowances under national sulfur dioxide trading program established under 1990 amendments to Clean Air Act was attributable to rent-seeking); Joskow & Schmalensee, *supra* note 163, at 51–58 (same).

tive for rent-seeking may be greater with respect to individualized decisions with clear winners and losers.¹⁸⁴

Second, procedural hurdles—such as committee consideration, filibusters, and vetoes—make enacting legislation slow and cumbersome. This feature may facilitate interest groups' ability to obtain transition relief, even where it may not be warranted. To the extent that an interest group can credibly threaten to block legislation—and procedural hurdles can make these threats easier to maintain—we can expect interest groups to obtain the rents they seek more frequently. This problem is exacerbated by the fact that Congress is often the body that has produced the new legal regime in the first instance. Interested parties can thus threaten to hold up the underlying regime change until Congress guarantees their relief from the transition.

Third, it is likely that Congress as a whole is not expert in the area governed by the new legal regime, or with respect to societal actors impacted by the regime. Indeed, even congressional staffers are unlikely to enjoy such expertise.¹⁸⁵ To the extent, then, that expertise will improve a decisionmaking process, Congress is not the optimal branch in which to vest authority to engage in that process.

2. *An Executive Branch Agency*

The principal advantage of delegating to an agency is the gain in expertise.¹⁸⁶ This expertise will presumably be of less importance in the context of legal transition relief than it is in structuring primary regulation.¹⁸⁷ Still, an agency's expertise might be of some help in formulating the precise structure of transition relief, and also perhaps in deciding which classes of actors might appropriately be afforded transition relief.

¹⁸⁴ See *supra* note 177 and accompanying text. Congress's freedom to pass laws on an individualized basis is also limited. See *Schiavo ex rel. Schindler v. Schiavo*, 403 F.3d 1223, 1226–27 (11th Cir. 2005) (alluding to, without resolving, possible unconstitutionality of congressional statute designed to change legal standards to benefit particular plaintiff in individual case); *Schiavo ex rel. Schindler v. Schiavo*, 404 F.3d 1270, 1272–75 (11th Cir. 2005) (Birch, J., specially concurring in denial of rehearing en banc) (arguing that statute was unconstitutional on separation of powers grounds).

¹⁸⁵ See, e.g., Galle & Seidenfeld, *supra* note 116, at 1959 (stating that, as compared to agency staff, congressional staffs lack substantive expertise and professional connections).

¹⁸⁶ See, e.g., *id.* (noting expertise of agency staff in comparison to congressional committee staff members); William W. Buzbee, *Preemption Hard Look Review, Regulatory Interaction, and the Quest for Stewardship and Intergenerational Equity*, 77 GEO. WASH. L. REV. 1521, 1543 (2009) (noting great expertise of federal regulators as first movers in their respective areas).

¹⁸⁷ Cf. Catherine M. Sharkey, *What Riegel Portends for FDA Preemption of State Law Products Liability Claims*, 103 Nw. U. L. REV. 437, 445 (2009) (identifying state law's conflict with "federal regulatory framework" as area that "might fall outside the expertise of the agency").

At the same time, executive branch agencies¹⁸⁸ remain accountable to some degree to the elected members of the legislature and the executive, and thus to the public.¹⁸⁹ This accountability is not as powerful as for a directly elected body such as the legislature,¹⁹⁰ but nonetheless, executive agencies are frequently trusted to make broad, value-laden judgments. For example, many environmental statutes vest the EPA with significant policymaking authority.¹⁹¹ However, the threat of capture by regulated parties accompanies accountability, much as it does for Congress.¹⁹²

3. *The Judiciary*

We traditionally associate two benefits with judicial decision-making. First, judicial independence insulates courts from capture by, and bias for or against, the parties appearing before them.¹⁹³ Second, deliberation among panels of judges and among courts enhances the quality of decisions.¹⁹⁴

On the other hand, courts generally are not accountable for their individual decisions, as greater independence begets less accountability.¹⁹⁵ Similarly, courts are very unlikely to have field-specific expertise. Nor will judges typically be familiar with even general issues surrounding transition relief. To be sure, the judiciary often must confront its own questions of legal transition relief—whether to apply new decisions retroactively¹⁹⁶ and whether to abrogate the preceden-

¹⁸⁸ We employ this terminology not to distinguish between agencies such as the EPA and cabinet-level agencies such as the Department of Labor, but to distinguish between agencies under the control of the President (“executive branch” agencies) and independent agencies. The latter are discussed below.

¹⁸⁹ See Mark Seidenfeld, *The Psychology of Accountability and Political Review of Agency Rules*, 51 DUKE L.J. 1059, 1068–91 (2001) (describing and assessing executive and legislative oversight of agency rulemaking).

¹⁹⁰ *Id.* at 1091–93.

¹⁹¹ See, e.g., *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457 (2001) (upholding congressional delegation to EPA of authority to set standard requisite to protect public health).

¹⁹² See, e.g., Thomas W. Merrill, *Capture Theory and the Courts: 1967–1983*, 72 CHI.-KENT L. REV. 1039, 1064–67 (1997) (noting judicial awareness of risks of agency capture).

¹⁹³ See, e.g., Jonathan Remy Nash, *Prejudging Judges*, 106 COLUM. L. REV. 2168, 2171 (2006) (noting that “independence frees judges to make unpopular decisions”); Jonathan Remy Nash & Rafael I. Pardo, *An Empirical Investigation into Appellate Structure and the Perceived Quality of Appellate Review*, 61 VAND. L. REV. 1745, 1752 (2008) (same).

¹⁹⁴ See Adeno Addis & Jonathan Remy Nash, *Identitarian Anxieties and the Nature of Inter-tribunal Deliberations*, 9 CHI. J. INT'L L. 613, 615–17 (2009) (discussing judicial deliberation); Harry T. Edwards, *The Effects of Collegiality on Judicial Decision Making*, 151 U. PA. L. REV. 1639, 1644–70 (2003) (discussing judicial collegiality).

¹⁹⁵ See Nash, *supra* note 193, at 2171 (characterizing judicial independence and judicial accountability as “competing demands upon the judiciary”).

¹⁹⁶ See Jonathan Remy Nash, *Legal Defeasibility in Context and the Emergence of Substantial Indefeasibility*, in *ESSAYS ON LEGAL DEFEASIBILITY* (Jordi Ferrer & Giovanni B.

tial effect of an earlier decision. But retroactivity is not usually the primary issue in a case; courts generally rule on retroactivity as a subsidiary issue after they have resolved the principal question on the merits. Indeed, courts usually resort to set rules¹⁹⁷ rather than policy considerations—such as efficiency concerns—in resolving retroactivity questions.¹⁹⁸ Moreover, courts lack an opportunity to gather information beyond what is submitted by the parties who appear before them.¹⁹⁹ This further exacerbates the judiciary's deficits in information and expertise.

4. Independent Agencies

Independent agencies²⁰⁰ present benefits and downsides similar to those offered by courts. The *raison d'être* of independent agencies is, of course, their relative independence from the executive branch²⁰¹ and thus from the effects of interest group lobbying and rent-seeking.²⁰² This independence is hardly complete, however. Though

Ratti eds., forthcoming 2010) (manuscript at 22–26, on file with the *New York University Law Review*) (discussing retroactive application of new rules in context of post-conviction habeas proceedings).

¹⁹⁷ See Jill E. Fisch, *The Implications of Transition Theory for Stare Decisis*, 13 J. CONTEMP. LEGAL ISSUES 93, 97–105 (2003) (describing common law rules regarding stare decisis).

¹⁹⁸ See *id.* at 105–06 (“[A] merit-based analysis appears insensitive to the values inherent in the system of stare decisis.”).

¹⁹⁹ See, e.g., Neil K. Komesar, *Taking Institutions Seriously: Introduction to a Strategy for Constitutional Analysis*, 51 U. CHI. L. REV. 366, 371–72 (1984) (describing courts' limited ability to regulate effectively due to information deficit and lack of control over agenda).

²⁰⁰ For an overview of the theory and structure of independent agencies, see generally Marshall J. Breger & Gary J. Edles, *Established by Practice: The Theory and Operation of Independent Federal Agencies*, 52 ADMIN. L. REV. 1111, 1135–63 (2000).

²⁰¹ See, e.g., Geoffrey P. Miller, *The Debate over Independent Agencies in Light of Empirical Evidence*, 1988 DUKE L.J. 215, 218 (noting that independent agencies are more shielded from executive branch influence than are traditional executive branch agencies). While administrators of independent agencies do not enjoy life tenure, still they enjoy some degree of independence by virtue of their extended terms in office and limits on their removability. Cf. Lisa Schultz Bressman & Robert B. Thompson, *The Future of Agency Independence* (Vanderbilt Univ. Law Sch. Pub. Law & Legal Theory Working Paper No. 10-01, Vanderbilt Univ. Law Sch. Law & Econ. Working Paper No. 10-02, 2010), available at <http://ssrn.com/abstract=1546103> (arguing that rise of hybrid independent-executive mechanisms decreases independent agency freedom from presidential influence, but noting that decreased autonomy may also productively increase accountability); Nash & Pardo, *supra* note 193, at 1765–69 (arguing that, notwithstanding their lack of life tenure, bankruptcy judges nonetheless enjoy considerable degree of judicial independence).

²⁰² See Buzbee, *supra* note 186, at 1527 (finding that executive actors are subject to lobbying by interest groups on regulatory matters); Paul R. Verkuil, *The Purposes and Limits of Independent Agencies*, 1988 DUKE L.J. 257, 259–60 (noting that statutory requirement of bipartisanship is designed to isolate independent regulatory agencies from political pressure). For commentary questioning the extent of the independence enjoyed by independent agencies, see generally Symposium, *The Independence of Independent Agen-*

independent agencies as entities are not accountable to any political actor, individual members of an agency may be subject to personal or political pressure via direct lobbying. It is not uncommon for employees (or even heads) of independent agencies to leave government service for lucrative employment in the private sector based on relationships forged during time in the government.²⁰³ Accordingly, even independent agency employees understand that they often face significant personal incentives to decide regulatory questions in one direction or another. Nonetheless, independent agencies have frequently been trusted with highly politically sensitive decisions, often to good effect.²⁰⁴ At the same time, the tradeoff for this independence is a comparative lack of democratic accountability; by design, independent agencies are not responsive to broader public moods or values.²⁰⁵ This may make independent agencies ill-suited for broad, value-laden judgments of the type that come early in the process of choosing a scheme of regulation or transition relief.

At the same time, independent agencies do have the opportunity to develop some degree of expertise.²⁰⁶ Like any other administrative

cies, 1988 DUKE L.J. 215; and compare Richard L. Revesz, *Specialized Courts and the Administrative Lawmaking System*, 138 U. PA. L. REV. 1111, 1147–53 (1990), which argues that even specialized courts that review agency action may develop an agency bias. For discussion of protections designed to frustrate independent agency bias and to ensure political independence, see Breger & Edles, *supra* note 200, at 1188–97.

²⁰³ See, e.g., Richard A. Posner, *The Federal Trade Commission*, 37 U. CHI. L. REV. 47, 86–87 (1969) (describing intention of many FTC lawyers to use their experience as means of obtaining lucrative private sector job after public service).

²⁰⁴ For example, consider the use of independent commissions to recommend military base closures. See Natalie Hanlon, *Military Base Closings: A Study of Government by Commission*, 62 U. COLO. L. REV. 331, 333–40 (1991).

²⁰⁵ For discussion of independent agency accountability and autonomy as competing interests, see Breger & Edles, *supra* note 200, at 1198–1209. For recent scholarship advocating increased reliance on independent agencies, see Bressman & Thompson, *supra* note 201, at 3, which argues that reliance on independent agencies may allow presidential oversight “sufficient to satisfy political interests and to serve normative values,” and Roberta S. Karmel, *The Controversy over Systemic Risk Regulation*, BROOK. J. INT’L L. (forthcoming 2010), available at <http://ssrn.com/abstract=1540691>, which argues that an independent agency should regulate systemic financial risk. Recent legislative proposals have also drawn upon independent agencies as valuable institutional actors. For discussion of the role of independent agencies in recent health care and global warming legislative proposals, see *id.* at 46–55.

Note that some independent actors may be temporary (like a one-time commission to select which military bases to close), while others may be permanent (like the SEC). We advocate here a permanent agency; an agency with permanence can gather expertise over time. Cf. Adrian Vermeule, *Intermittent Institutions* (Harvard Law School Pub. Law & Legal Theory Working Paper Group, Paper No. 10-13, 2010), available at <http://ssrn.com/abstract=1542104> (highlighting differences between temporary and permanent governmental institutions and explaining when each type of actor might be more appropriate).

²⁰⁶ The type of expertise that would be relevant here is discussed *infra* notes 222–24 and accompanying text.

agency, an independent agency can hire staff with technical skill and can explore complicated policy issues to a degree impossible in a court or, to a lesser extent, Congress.²⁰⁷ Independent agencies possess all of the procedural advantages of an administrative actor: the ability to conduct studies and accumulate data, the power to take comments from interested parties, the authority to hold hearings, and so forth.²⁰⁸ A wide variety of independent federal agencies have acquired strong reputations for technical competence.²⁰⁹ Independent agencies might thus be well-suited to resolving individualized decisions, such as the allocation of transition relief among eligible parties.²¹⁰

Table 1 summarizes the distinctive features of the various government actors we have examined in this Section.

TABLE 1
COMPARING THE FEATURES OF INSTITUTIONAL ACTORS

	<i>Good at making broad, value-laden decisions?</i>	<i>Good at making narrow, technocratic decisions?</i>	<i>Prone to lobbying and capture?</i>	<i>Armed with (or able to develop) relevant expertise?</i>
Congress	Very good	Not good	Very	No
Executive Branch Agency	Good	Very good	Very	Yes
Court	Not good	Very good	No	No
Independent Agency	Not good	Very good	Somewhat	Yes

C. Recommendations

The previous Section demonstrated that different institutional actors offer different benefits within a system designed to apportion legal transition relief. This differentiation suggests that an optimal allocation of power with respect to legal transition relief would enlist multiple institutional actors.²¹¹ Vesting all authority over transition

²⁰⁷ See, e.g., Verkuil, *supra* note 202, at 262–63 (noting that independent agencies develop expertise over time).

²⁰⁸ This depends of course on the agency's organic statute, but most independent agencies possess this type of power (and there is no reason Congress could not confer it if necessary).

²⁰⁹ See, e.g., Michael J. Borden, *The Role of Financial Journalists in Corporate Governance*, 12 FORDHAM J. CORP. & FIN. L. 311, 354–55 (2007) (noting superlative regulatory expertise of SEC).

²¹⁰ Cf. Verkuil, *supra* note 202, at 267–72 (providing examples to show independent agencies are best used in functions that mirror appellate courts, not to administer set policies).

²¹¹ A prominent analogy to the separation of decisionmaking authority between entities for purposes of providing transition relief appears in the context of environmental risk regulation. There, "risk assessment" (the determination of whether a risk exists and its

relief with the same actor that has responsibility for shaping the new legal regime likely will result in the transition relief contaminating (or at least threatening to contaminate) the new legal regime itself. While this may be unavoidable at some level, vesting all authority in one entity may make it genuinely impossible to enact a new legal regime without finishing all bargaining over the scope of transition relief. That, in turn, may serve to increase the amount of lobbying that attends the structuring of new legal regimes, as private parties exploit the opportunity to delay the new regime in order to extract transition relief.

We return here to the three categories of justifications for transition relief that we described in Part I: “political” justifications, “legitimacy” justifications, and “economic” justifications. In light of these justifications, we suggest which institutional actors might be best equipped to make decisions at each of the various stages in the provision of transition relief.

1. *Political Considerations*

Where Congress or the executive can impose a new legal regime only if it pays off interested private parties through transition relief, that relief will necessarily be a part of the construction of the legal regime itself.²¹² By hypothesis, affected private parties will not permit Congress or the executive to proceed with legal change unless they are confident that they will receive the desired transition relief, which in many cases will require that the transition relief be built into the legal regime in finished form. Thus, in many cases, whichever governmental body creates the new legal regime in the first instance (Congress, an agency, or the courts) will be forced to provide transition relief at the same moment.

In other cases, however, the original law or regulation need only include some promise of transition relief, and not a detailed recitation

scope) is separated from “risk management” (the policy question of how to respond to the risk identified). See Jonathan Remy Nash, *High-Speed Police Chases and the Constitutional Common Law of Risk Regulation* (unpublished manuscript, on file with the *New York University Law Review*) (discussing environmental risk assessment and management). One justification for this separation is specialization: Risk assessment raises questions best addressed by experts in science, while risk management introduces questions best addressed by policy and economic experts. See *id.* at 7–8. Another justification is that separation of inquiry avoids the very real risk that policymakers would otherwise infect, and even overwhelm, the control of scientific experts over risk assessment. See *id.* at 8 (discussing how separation of risk management from risk assessment protects integrity of risk assessment). Put another way, the separation of risk management from risk assessment helps to ensure the propriety and validity of the entire process.

²¹² See *supra* Part IV.A.1 (discussing circumstances in which transition relief will be necessary).

of which party will receive what benefit. In these instances, the original lawmaking body might be able to leave consideration of the exact form and recipients of transition relief to an outside actor, such as an agency or court.²¹³ One might ask why a group of private actors with enough power to block enactment of the new legal regime, and thus presumably with enough power to extract concessions on legal transition relief, would not demand that Congress specifically allocate such relief. One answer may be that the group is confident that the transition relief that will eventually be offered will be satisfactory. Another answer is that the group might believe that explicit congressional assurance will appear too crass and harm its interests in the long run.²¹⁴ This may also explain why Congress would voluntarily forgo its apparent ability to extract even higher rents from a group in a position to deliver them.²¹⁵ In the end, however, questions of who is best positioned to provide transition relief from a technocratic point of view are largely inapposite. If transition relief is politically necessary to secure adoption of a new legal regime, in nearly all cases it must be provided by the political actor associated with the regime itself.

2. *Legitimacy Considerations*

If the rationale for affording transition relief is the fear that people will perceive a new legal regime as illegitimate or unfair, then a political actor—and most likely the body that creates the new legal regime—is best positioned to make decisions regarding transition relief. In many cases this will be Congress itself; in other cases an agency will play this role. The choice of actor will be driven in large part by the question of which institution is best positioned to gauge both which parties might object on grounds of fairness and what steps need be taken to alleviate their concerns. Congress, as the institution most directly accountable to the voters, is the natural choice.

Again, however, it may only be necessary for Congress to indicate a desire to afford some transition relief without spelling out the

²¹³ We return to the question of which outside actors will be best suited to this task *infra* Part IV.C.3.

²¹⁴ See Nash, *Allocation and Uncertainty*, *supra* note 7, at 842–43 (arguing that grandfathered rights are popular because they disguise publicly unpopular cost-benefit calculus).

²¹⁵ See *id.* at 843 (arguing that government choice of transition relief is driven by desire to create “perception of procedural fairness”). This concern, however, seems not to have stopped Congress from literally listing the number of free sulfur dioxide allowances being allocated to coal-fired power plants under the Clean Air Act sulfur dioxide trading program. That method of explicit allocation, however, persisted only under the initial, time-limited first phase of the trading program; the broader second phase allocates allowances by formula. Nash & Revesz, *Markets and Geography*, *supra* note 151, at 584–85.

precise form or recipients of that relief. A general statement of transition rights, coupled with an opportunity to be heard in front of a neutral judicial or administrative body, will in many cases be sufficient.

More generally, whether the legislature, an executive branch actor, or an independent agency actor makes decisions regarding transition relief, judicial review can perform a useful constraining function. While the courts are poorly designed to make such decisions in the first instance, their independence renders them potentially valuable as a backstop. To the extent that either executive branch actors or independent agencies resolve questions of transition relief pursuant to a congressional delegation of authority, judicial review should be available to ensure both that (1) the general format and structure of transition relief conforms to the delegation of authority; and (2) individual decisions as to transition relief are made appropriately under the prescribed format and structure. Existing administrative law provides ample basis for both of these types of review.

3. *Economic Considerations*

When transition relief is called for because the attendant benefits outweigh the social costs associated with such relief,²¹⁶ or to induce certain desirable investments,²¹⁷ the decision of what transition relief to afford is largely a technocratic one. Here, the multiple steps involved in the decision to provide transition relief are significant. As we have explained above, the initial decisions regarding whether to provide transition relief, and to a lesser extent the form and quantity of relief to provide, are often quite broad in scope and can involve a series of value judgments and tradeoffs between priorities. In this respect, Congress, or a politically accountable executive branch agency, would appear best situated to render the relevant decision.

However, when it comes to the particular decisions about what shape transition relief should take and which particular parties should be entitled to it, the picture changes. Congress appears poorly positioned to make these narrow, individualized, technocratic judgments, or at least less well positioned than a more expert agency. Thus, as a general matter, it would make sense for Congress to delegate judgments such as these.²¹⁸ There is historical precedent for this approach:

²¹⁶ See *supra* notes 21–23 and accompanying text (discussing circumstances where balance of social costs favors transition relief).

²¹⁷ See *supra* notes 24–26 and accompanying text (noting suggestions of how transition relief may be used to incentivize socially desirable investments).

²¹⁸ Michael Graetz has argued that deciding who should receive transition relief is difficult because the effects of a change in the law may have an impact beyond simply the class of people directly affected by the law. See Graetz, *supra* note 59, at 77–78. As an example,

At times Congress has seen fit to authorize transition relief but leave the details to other actors with closer ties to affected communities and populations. For example, in an effort to preserve fisheries, Congress has vested executive branch actors and regionally elected fishery councils with the authority to distribute grandfathered fishing rights equitably.²¹⁹

Not only will an agency often be superior to Congress in the allocation of transition relief, but an independent agency may be even better situated than a standard executive branch administrator. Once the decision to grant such relief has been made, expert actors who are as independent of political influence as possible should determine the structure and recipients of the relief in order to diminish rent-seeking to the greatest extent feasible.²²⁰ An independent agency meets these criteria perhaps better than any other standard government institution.²²¹

Graetz explains that revision of air transportation regulations might “have financial effects on the investors, consumers and employees of air carriers, airframe manufacturers, and airport operators.” *Id.* at 78. The fact that so many classes of societal actors might be affected may make it challenging, if not impossible, to apportion limited but appropriate transition relief. Presumably, an expert agency would handle such challenges better. And if indeed the task proves to be impossible, an expert agency would be best positioned to come to that conclusion as quickly as possible.

²¹⁹ See Nash, *Allocation and Uncertainty*, *supra* note 7 at 819–20 (describing reliance on regional fishery councils in development of fishing quota systems).

²²⁰ To the extent that compensation is used, the legislature or executive branch agency should set a cap on the total amount of available relief. *Cf.* Michael B. Gerrard, *N.Y. Brownfields Program Buffeted by Legislature, Courts*, N.Y. L.J., July 25, 2008, at 5 (describing how, where brownfields cleanup program authorized tax credits far in excess of actual cleanup costs, New York State’s Department of Environmental Conservation “began making it difficult for sites to enter” program in order “[t]o guard the state’s treasury from this uncapped exposure”).

²²¹ In some sense, the use of an independent agency to decide these questions allows for retroactive effect without what Jacob Gersen and Eric Posner describe as the downsides of “Delay Rules,” where retroactive legislation is too easily accomplished. Gersen and Posner explain that Delay Rules offer the benefit of allowing one session of the legislature to enact general legislation while deferring, and delegating to future legislators, specific actions. *See* Gersen & Posner, *supra* note 1, at 548. Gersen and Posner explain:

Delay Rules facilitate monitoring of agents by the public and reduce the relative influence of interest groups over legislation. Delay allows slow and diffuse public attention to mobilize, reducing the advantage of well-organized groups in the legislative process. However, public attention is often short-lived. Once public attention wanes, private interests can lobby again Retroactivity, therefore, allows actors to evade some timing rules. The bias against retroactivity may support the democracy-enhancing facets of Delay Rules on the legislative process.

Id. at 583 (citations omitted). Reliance upon independent agencies that are less subject to lobbying may allow for greater flexibility in having the government act retroactively without the attendant loss of benefits from Delay Rules that Gersen and Posner identify.

This independent agency could of course be the institution that created the new legal regime, as when the SEC promulgates a new regulation. Or it could be a stand-alone institution created by Congress to administer transition relief related to a single law, similar to the Base Closing Commission.²²² But Congress could also create an independent agency dedicated to allocating transition relief across a wide range of substantive legal areas. That agency might acquire or be imbued with expertise related to transition relief that transcends particular legal subjects. For example, many statutes require consideration of whether a modification to a grandfathered structure is “substantial.” Again, this type of question arises with respect to environmental law, land use law, and the Americans with Disabilities Act, among other legal regimes.²²³ An agency might become skilled at drawing workable lines related to “substantial” modification across issue areas. It is also possible that the breadth and number of regulated entities who would come before the agency would again narrow the possibility of capture.²²⁴

For instance, consider tax law. As things now stand, taxpayers who see new tax legislation on the horizon often rush to finalize transactions before the new law—and less favorable tax treatment—takes effect.²²⁵ Such “under-the-wire” investments are inefficient. Kyle Logue has explained that an ideal transition policy would decrease the incentive for such investments:

With an ideal transition policy, under-the-wire investments (those investments that would not have occurred but for the imminent repeal of the incentive subsidy) would not receive grandfather treatment. At the same time, however, grandfather treatment should be given to whatever investments were made in reliance on the incentive subsidy’s existence, so long as that investment was made prior to the repeal of the subsidy. One possibility would be for Congress to try to sort out these two types of investments and grandfather the

²²² See *supra* note 204 and accompanying text (discussing base closures). For discussion of the effective use of ad hoc commissions to address politically challenging issues—including base closures—see Bradford C. Mank, *Protecting the Environment for Future Generations: A Proposal for a “Republican” Superagency*, 5 N.Y.U. ENVTL. L.J. 444, 489 (1996).

²²³ See *supra* notes 152–58 and accompanying text (discussing transition issues that transcend subject matter areas).

²²⁴ Cf. S. REP. NO. 97-275, at 6 (1982), as reprinted in 1982 U.S.C.C.A.N. 11, 16 (noting, with respect to creation of U.S. Court of Appeals for the Federal Circuit, that “the subject matter of the new court will be sufficiently mixed to prevent any special interest from dominating it”).

²²⁵ For discussion and criticism of this approach, see Logue, *supra* note 7, at 1176–80.

latter but not the former. To do so with perfect accuracy, however, would be impossible.²²⁶

While Logue may be correct that it would be (at least nearly) impossible for Congress to distinguish between these two types of investments, it is far more plausible that Congress could delegate such responsibility to an independent agency, which could then resolve each such claim on a case-by-case basis pursuant to a substantial body of expertise and experience.²²⁷

To be sure, dividing authority among more than one actor entails coordination costs and potential delays.²²⁸ Yet we believe that the attendant benefits outweigh those costs. The varying competencies of different actors are important enough to the attainment of optimal legal transition relief that the substitution of a less capable institutional actor would seriously impair the final regulatory product.

Ultimately, we are not confident that any government actor—be it legislative or executive—will succeed in fending off rent-seeking by powerful interests related to transition relief. The institutional safeguards that we outline in this Part would help to ameliorate the problem. Implementing these institutional correctives, however, would require fundamental shifts in power, and it remains unclear whether Congress has the proper incentives to divest itself of authority in this fashion. Hopeful signs exist but are far too scattered to form any basis for generalization. The first-best world remains elusive.

CONCLUSION

In this Article, we have endeavored to fill major gaps in the existing literature on legal transition relief. We have argued that the major impediment to a private market for insurance against legal transitions is pricing. We have also attempted to demonstrate that, while information and derivative markets conceivably might help to solve pricing problems, such markets are unlikely to become robust enough to function properly. Finally, our analysis of the institutional options

²²⁶ *Id.* at 1179–80. Accepting this impossibility, Logue goes on to propose that new tax laws should be applied prospectively, not from the date of enactment but from the date that they are originally proposed in Congress. *Id.* at 1180.

²²⁷ *Cf.* Deborah R. Hensler, *A Glass Half Full, a Glass Half Empty: The Use of Alternative Dispute Resolution in Mass Personal Injury Litigation*, 73 *TEX. L. REV.* 1587, 1615–18, 1623–26 (1995) (citing examples of alternative dispute resolution to allocate limited Dalkon Shield– and asbestos-related injuries, and advocating greater use of such systems in mass tort litigation).

²²⁸ *Cf.* William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 *IOWA L. REV.* 1, 17–36 (highlighting that assumption of single government regulator is incorrect and noting that multiplicity of potential regulators may impose costs).

available within government compels the conclusion that independent agencies should play larger roles in distributing transition relief. The institutional options available within government are not ideal, but neither have they yet been fully utilized.