

# Regulatory Breakdown

The Crisis of Confidence in U.S. Regulation

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## Chapter 1

# Oversight in Hindsight

## Assessing the U.S. Regulatory System in the Wake of Calamity

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The first decade of the twenty-first century concluded, and the second decade began, with the United States having experienced one of the worst economic upheavals in its history as well as one of the worst environmental disasters in its history. These calamities, combined with a series of other major industrial accidents as well as a deep recession and sluggish economic recovery, have cast grave doubts over the adequacy of the nation's regulatory system. In the wake of each calamity, politicians and members of the public have attributed much of the blame to a general breakdown in the U.S. regulatory system.<sup>1</sup> The various investigative reports that followed the century's early disasters, for example, only reinforced this view of systemic regulatory failure:

- In response to the subprime mortgage crisis that started in late 2007, the Financial Crisis Inquiry Commission's majority report accused federal regulators of "pervasive permissiveness." The report's authors argued that "little meaningful action was taken to quell . . . threats in a timely manner," singling out "the Federal Reserve's pivotal failure to stem the flow of toxic mortgages . . . by setting prudent mortgage-lending standards" (National Commission on the Causes of the Financial and Economic Crisis in the United States 2011:xvii).<sup>2</sup>
- Six months after the 2010 explosion on the BP-leased *Deepwater Horizon* drilling rig, which killed eleven crew members and caused nearly five million barrels of oil to spill into the Gulf of Mexico, the federal investigating commission pointed to "decades of inadequate regulation"

as a critical cause (National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling [hereafter abbreviated as the Oil Spill Commission] 2011:56). The Commission's report characterized the Minerals Management Service as "an agency systematically lacking the resources, technical training, or experience . . . to ensur[e] that offshore drilling is being conducted in a safe and responsible manner. For a regulatory agency to fall so short of its essential safety mission is inexcusable" (Oil Spill Commission 2011:57).

- After the worst mine disaster in the United States since 1970 killed twenty-nine miners, the Governor's Independent Investigation Panel concluded that the 2010 explosion at the Upper Big Branch Mine in West Virginia "is proof positive that the [Mine Safety and Health Administration] failed its duty as the watchdog for coal miners" (Governor's Independent Investigation Panel 2011:77).
- Following a 2010 explosion of a natural gas pipeline in California that killed eight people, injured several dozens more, and destroyed or damaged over one hundred homes, the National Transportation Safety Board determined that the energy company had "for years . . . exploited weaknesses in a lax system of oversight," one in which regulators had "placed a blind trust in the companies that they were charged with overseeing to the detriment of public safety" (National Transportation Safety Board 2011:135).

When so many diagnoses all share the common thread of regulatory failure, it is no surprise to see increasing appeals for regulatory change, some of which have already resulted in the adoption of new regulatory statutes as well as internal administrative reforms. Following the BP oil spill, for example, the Department of the Interior imposed a temporary moratorium on offshore drilling, closed its Minerals Management Service (MMS), and transferred regulatory authority to a new Bureau of Ocean Energy Management, Regulation, and Enforcement (U.S. Secretary of the Interior 2010). Responding to the financial crisis, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, giving extensive new responsibilities to banking and other financial regulators, as well as creating a new agency with substantial regulatory authority, the Consumer Financial Protection Bureau (Dodd-Frank Act 2010). Adopted along a rather sharp party-line vote, the Dodd-Frank Act remains controversial, with the Republican-controlled House of Representatives in 2011 passing a bill to repeal the Act. Yet notwithstanding fierce partisan wrangling in Washington over both regulatory and nonregulatory issues, Republicans and Democrats have come together to enact other regulatory statutes in the wake of calamities. The

nationwide recall of eggs stemming from an outbreak of *Salmonella* in August 2010 helped generate bipartisan support for passage of the Food Safety and Modernization Act (2011). By late 2011, both houses of Congress had unanimously approved new safety legislation responding to the 2010 natural gas pipeline explosion in California (Snow 2011).

Notwithstanding such moments of bipartisan support for new regulatory authority, the anemic pace of the economic recovery following the Great Recession has generally made regulation a matter of great political contestation. Regulatory reform has become one of the top talking points for Republican lawmakers and political candidates, who have repeatedly railed against “job-killing” regulations. By late 2011, the U.S. House of Representatives had, generally along party lines but with some Democrats joining in the majority, passed three major bills that would make changes to the procedures regulatory agencies must follow before adopting costly new regulations (Clark 2011; Kasperowicz 2011; Yang 2011). Even President Obama had come to assail regulation for “placing unreasonable burdens on business . . . that have stifled innovation and have had a chilling effect on growth and jobs,” calling on his administration to conduct a thoroughgoing review of existing rules and eliminate those deemed unnecessary or counterproductive (Obama 2011).

Such discontent with the regulatory system has not been confined simply to political rhetoric and the corridors of power in Washington, D.C. Rather, it has manifested itself still more widely in popular opinion that takes a dim view of government (Nye et al. 1997; Stevenson and Wolfers 2011)—and of regulation in particular. Of respondents to a 2011 survey by the Pew Research Center, 59 percent agreed with the statement that “government regulation of business usually does more harm than good” (Pew Research Center 2011). A September 2011 Gallup poll revealed that 50 percent of Americans overall believe there is “too much” government regulation of business and industry (Newport 2011). As Figure 1.1 shows, this level of dissatisfaction with regulation is the highest ever reported, having increased from only 28 percent in 2002. According to the same polling data, in 2006 nearly the same proportion of Republicans and Democrats believed there was too much regulation (40 percent and 36 percent, respectively), whereas by 2011 the chasm between the parties had “widened substantially,” with 84 percent of Republicans but only 22 percent of Democrats reporting a belief that there is too much government regulation (Newport 2011).

Obviously, strong political currents all point toward the conclusion that the U.S. regulatory system needs a major overhaul. Yet as a matter of scholarly inquiry, it seems to us a much more open, though still no less

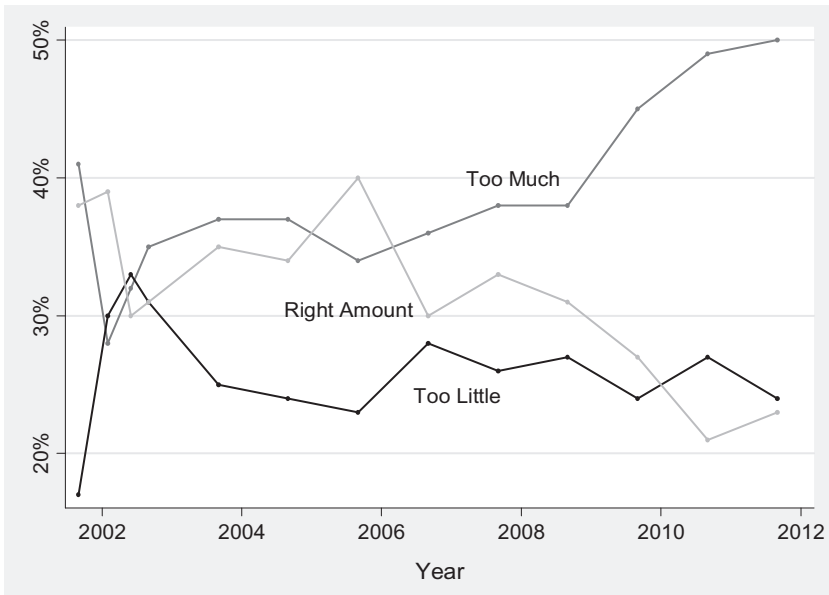


Figure 1.1. Public Attitudes on Government Regulation of Business (2001–11).  
 Source: Newport (2011).

vital, question as to whether catastrophic events and a sluggish economy do actually signal a fundamental breakdown in the U.S. regulatory system. Is the apparent crisis of confidence in U.S. regulation really warranted?

Perhaps to some observers, the mere existence of disasters like a pipeline explosion or oil spill justifies a *res ipsa loquitur* conclusion that regulation has failed—that is, such situations speak for themselves. But do the recent disasters collectively, or indeed any of these disasters individually, really automatically justify a conclusion of regulatory breakdown? If individual calamities do speak for themselves as a sign of regulatory failure, through laxity, then perhaps the sluggish recovery of the U.S. economy following the Great Recession also speaks for itself as a sign of regulatory failure, through excessive stringency. Must those who see a regulatory breakdown from great industrial calamities also accept that regulations are to blame for anemic economic growth? And vice versa? If it is difficult, if not impossible, to see that the political left and the political right could both be correct at the same time—namely, that the United States has both too little regulatory oversight as well as

too much—then perhaps thoughtful observers should not readily accept either side's view. Perhaps perceptions of regulatory failure are just that: perceptions, often viewed through partisan lenses.

We believe rigorous academic research needs to play a larger role in judgments about regulation, and regulatory failure, in the wake of major calamities, precisely to counteract and inform tendencies to leap to hasty conclusions. Determining causation is the aim of science. As such, a book like this one is premised on the view that serious academic research can helpfully illuminate—even if it can never completely dispel partisanship from—policy debates over regulatory reform in the wake of salient disasters.

Calamities, we suggest, bring with them strong tendencies for faulty assessments of both underlying causes and necessary reforms. These tendencies are due to a host of factors, including both psychological biases as well as nuances in the policy process itself. The pressure politicians feel to adopt change even without solid policy analysis behind their reforms means that solutions can end up being adopted that are either unrelated to the true cause of disasters or that actually work at cross-purposes to improving conditions. In addition, sometimes the underlying problem may not have to do with the day-to-day operations of the regulator or the regulated industry but may instead reflect inherent societal choices about tradeoffs.

Is it possible that the ultimate failure of the U.S. regulatory system is that the American public, through its elected representatives, asks regulators to oversee activities that are at once desired but also deadly? Is the problem actually not with the regulatory system itself but with a much-too-ready diagnosis of regulatory breakdown? Hindsight, it is said, is perfect vision. But it is also the case that, in the hindsight of a calamity, it is always possible to point to regulators and say that they failed.

As a way of framing the scholarly work assembled in this volume, in this chapter we raise broad, even perhaps unsettling, questions about the conventional wisdom that attributes the cause of calamity to a breakdown in the regulatory system. As much as anyone, we are saddened, even appalled, at the loss of life, the economic dislocation, the human anguish, and the ecological messes that have resulted from the disasters that have motivated this book. We are similarly sympathetic to the real and serious human consequences of job losses and sustained unemployment. Indeed, it is precisely out of concern for human welfare that we believe more serious, analytic attention needs to be paid to studying regulatory performance. Rather than supporting reflexive judgments and adopting symbolic responses that may do little more than make public officials and their constituents feel better, we hope that the work

in this volume will contribute to and help motivate a reinvigorated effort to achieve a better understanding of social and economic ills and the ways, if any, that regulation might need to be improved in the wake of major calamities.

### **Inferring Regulatory Failure from Calamities**

Psychological and behavioral economics research provides ample evidence to support the notion that people tend to focus more on worst-case outcomes and to believe that vivid events are more common than they really are (Tversky and Kahneman 1973). Moreover, researchers studying these phenomena—known as the “availability heuristic,” along with other cognitive biases—also report that they can be exacerbated by the media, which for obvious reasons tend to focus on especially dramatic events (Shrum 2002). In an effort to make sense of tragedies, it is thus not surprising that, following a string of highly publicized disasters, journalists, policy advocates, and public officials can be heard making systematic denouncements of the U.S. regulatory infrastructure.

Although many citizens may have little understanding of regulatory policy, it does seem clear to them when the regulatory system is *not* working. The disconcerting images of birds covered in oil, of tar balls on the shoreline, and of a seemingly ever-expanding oil slick in the Gulf of Mexico in the wake of the 2010 BP oil spill made vivid a worst-case scenario that surely any good system of regulation should seek to prevent. As a result, it is not surprising that disasters such as the BP oil spill have stirred an intense desire to blame regulation and regulators. Even in cases when an unprecedented calamity occurs that truly surprises everyone—a “black swan” event (Taleb 2007)—the regulatory infrastructure seems to present the “obvious” source of the problem once the initial surprise wears off, regardless of whether the disastrous event could actually have been foreseen in advance.

In an effort to find actors to blame, politicians often make quick judgments. Even if they initially target the business firms involved in the disaster, soon thereafter they heap blame on the regulator charged with oversight. For example, in remarks made just ten days after the explosion at the Upper Big Branch mine, even after acknowledging that “there’s still a lot that we don’t know,” President Obama identified not only Massey Energy, the mine operator, but also the overseeing regulator as a culprit: “For a long time, the mine safety agency was stacked with former mine executives and industry players” (Obama 2010a). Summing up, President Obama concluded that the disaster was “a failure, first and foremost, of management, but also a failure of oversight and a failure of laws . . . riddled with loopholes” (Obama 2010a).

The 2010 outbreak of *Salmonella* from contaminated eggs presents another case in point. Shortly after the government initiated the recall of half a billion eggs originating from Iowa producers, consumer advocates and news outlets began to question the pace of rulemaking at the Food and Drug Administration (FDA). In particular, they lamented delays in imposing a related rule that had been proposed several years before but was finalized only in July 2009 (FDA 2009). Critics claimed that had the new rules not “languished for more than a decade because of internal sniping in the federal bureaucracy and a general deregulatory atmosphere,” the *Salmonella* outbreak would never have occurred (Martin 2010). Consumer advocates and others such as the U.S. Government Accountability Office (GAO) further criticized the structure of regulatory oversight of eggs, suggesting that the division of regulatory responsibilities between the Department of Health and Human Services and the Department of Agriculture triggered the regulatory torpor and fueled the resulting health crisis (GAO 2011; Martin 2010).

Placing blame on government regulators can have significant policy implications. In most areas of public policy, laws remain relatively stable for long periods of time, but proposals to change them emerge in reaction to crises or other salient events (Baumgartner and Jones 1993; Dodd 1994). Crises provide opportunities for policy entrepreneurs to place at center stage those solutions they have already been seeking to see adopted (Kingdon 1984:91). Even if those solutions were not developed to address the particular problem at hand, politicians often feel compelled to consider them—to “do something.” Intense reactions by the public, after all, drive an intense desire by politicians to take action. Under such circumstances, taking any action targeted at the regulatory process, regardless of how well or poorly crafted, will be better politically than taking no action at all.

Political incentives point in the direction of quick legislative action that responds to calamities. Voters focus much less on considerations of how a law will be implemented than on the enactment of a new law itself (Mayhew 1974; Mazmanian and Sabatier 1983). Legislators can reap rewards from passing legislation regardless of whether doing so turns out to be realistic or effectual, and they can later reap rewards by lambasting regulatory officials in the executive branch for failing to live up to the aspirational (even if unrealistic) goals embodied in the initial legislation (Mayhew 1974). In short, the public’s demand for action can be accommodated by representatives’ enactment of window dressing as much as by the passage of well-founded, carefully analyzed reform.

Roberta Romano, in her chapter in this volume, explains the legislative response to financial crises in precisely these terms. Although it might take a highly trained and knowledgeable economist or legal



scholar years to write a book explaining the causes of a financial crisis, Congress can propose, debate, and enact a nearly thousand-page bill in about half a year, as it did with the Dodd-Frank Act (2010). Such responsiveness is surely sometimes necessary, even laudatory. But it can also be just haste—perhaps for its own sake. As noted earlier, in responding to the BP oil spill, the Department of the Interior disbanded its offshore oil and gas regulator, MMS, less than one month after the *Deepwater Horizon* oil rig exploded. Explaining the Department’s decision, President Obama declared: “For years, there has been a scandalously close relationship between oil companies and the agency that regulates them. That’s why we’ve decided to separate the people who permit the drilling from those who regulate and ensure the safety of the drilling” (Obama 2010b). It did not seem to matter that the highly publicized scandals at MMS primarily centered on officials in the agency’s separate revenue collection division located in an office roughly a thousand miles away from the agency inspectors who were responsible for monitoring safety on offshore platforms (Carrigan forthcoming).

To be sure, no one would disagree with the emotions expressed by Representative Tim Walberg (R-Mich.), who, following the fatal explosion at the Upper Branch mine in West Virginia, noted that he and others on his legislative committee were “anxious to act” and felt “a sense of urgency to move forward with mine safety reform” (U.S. House of Representatives 2011). But a “sense of urgency,” however laudable and well intentioned, can also lead policymakers to act without undertaking sufficiently careful analysis or without giving adequate consideration to whether new laws can be effectively implemented.

In the wake of a calamity, the goal may seem perfectly clear, namely, to find a solution that will “prevent repetition of such a disaster” (Haines 2009). Yet without the rigor of independent analysis, policy decisions made in the moment of crisis can also readily succumb to the influences of political ideology. Reactions to calamity do vary according to the party affiliation of the beholder—and as Matthew Baum explains in his chapter in this volume, these partisan filters can be reinforced by the media’s framing of calamitous events. The partisanship that Baum (this volume) finds in media coverage of the healthcare reform debate can be found in coverage of other regulatory issues, and it only mirrors if not bolsters how politicians and members of the public view calamities’ causes and their solutions.

To see the divide, one need only compare editorials following the BP oil spill from the major newspapers for Washington, D.C. (*Washington Post* and *Washington Times*) and New York City (*New York Times* and *Wall Street Journal*). The editorials differed considerably in their views of the relative culpability of government in relation to the spill. The *Washing-*

*ton Post* and *New York Times* made reference to the scandals at MMS twice as often as their more conservative counterparts in the two months following the spill. The more liberal papers tended to tie MMS's problems to the Bush administration, such as by claiming that "the problem of regulator-industry coziness predated [Obama's] tenure" (*Washington Post* 2010) or asserting that the agency "was corrupted by industry in the Bush years" (*New York Times* 2010). In contrast, the more conservative *Washington Times* and *Wall Street Journal* repeatedly criticized the Obama administration's response to the spill after the fact.

Even when partisans agree on who is to blame for a catastrophe, they still usually differ dramatically in the remedies they support. Only about a week after the Massey Energy mine explosion, for example, editorials in both the *New York Times* and *Washington Post* recommended that Congress strengthen mine safety legislation. The *Wall Street Journal*, by contrast, simply favored better enforcement of existing laws (2010). Although statements issued by the left-of-center Center for Progressive Reform (CPR) and the right-of-center Cato Institute following the BP oil spill both accepted that MMS had been "captured" by the oil and gas industry, they differed markedly in the solutions that followed from this diagnosis. For Cato, regulatory capture provided another reason to distrust government reforms: "Policymakers never seem to worry about [capture] in their continual call to create new departments, agencies, commissions, boards, and other federal entities. . . . The government's recent advances into the health care and financial services industries after its prior failures in those areas will likely lead only to further failures and more economic distortions down the road" (Cato Institute 2010). In contrast, CPR argued that capture called for increased governmental effort, including tighter standards and increased "funding to permit reasonably competitive salaries and adequate training for agency staff" (CPR 2010:7).

Political leaders' own predispositions about the proper role of government will play a key role in decision making when they react hastily to calamities. Both their diagnoses and prescriptions will not only be subject to ordinary cognitive biases, such as the availability heuristic, but they will also more likely be grounded on ideological hunches rather than a careful, dispassionate consideration of the evidence.<sup>3</sup>

## **Regulation, Tradeoffs, and Low-Probability Events**

The psychological impulses and political pressures that lead politicians to rush to judgment also tend to crowd out consideration of the tradeoffs inherent in almost all regulatory decisions. Regulatory goals are often competing ones, with the purpose being to manage risk rather

than to eliminate it altogether. People want both to drive cars and to be safe; they want oil to fuel their cars and an environment free of oil spills; and they want the energy and materials made possible from mining and other industrial operations without injuries and fatalities from workplace accidents. But the complete elimination of all harms, including from low-probability catastrophic events, is not possible without stopping altogether the very activities that give rise to these harmful events. As a result, regulations may be effective at reducing risk, and thus may fully fulfill their public mandate, even if they do not completely remove the possibility of disaster. In a world governed by probabilities, harms will still occur whenever a regulator is asked to balance risks.

The very choice to regulate, rather than to ban, a specific type of economic activity implicitly rejects the goal of eliminating risk entirely. Everyone wishes that untoward risks could be eliminated altogether, and regulations do seek to prevent harms—whether from restaurants operating in an unsanitary manner, from nuclear plants ignoring safety protocols, or from any of a myriad of other hazardous conditions. However, this does not imply that society seeks to get rid of restaurants, nuclear reactors, or other fixtures of society and the economy.

On the contrary, some laws assume that regulation will leave the public exposed to some degree of residual risk. How else can one explain the recall authority Congress has granted to the Consumer Product Safety Commission, the Food and Drug Administration, and the National Highway Traffic Safety Administration (NHTSA), notwithstanding these agencies' corresponding authority and responsibility to adopt preventive regulatory standards? Such recall provisions are an implied acknowledgment that even regulated products will still pose some risk of harm—a risk that calls for a governmental response to be available to pull a dangerous product from the marketplace.

Sometimes legislation does more than just tacitly recognize risk; it builds it in by recognizing competing objectives of promoting industry while regulating it. For example, the Outer Continental Shelf Lands Act (1953), which forms the foundation for oil and gas policy and regulatory oversight in federal offshore waters, explicitly recognizes the tradeoff between environmental protection and the need for energy development. The law declares that offshore areas “should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs” (Outer Continental Shelf Lands Act 1953:§3). Such language may provide little clarity about exactly how to strike the balance between oil exploration and environmental concerns, but because the act still allows for some oil drilling it does not eliminate the possibility of disaster altogether.

The recognition of tradeoffs and residual risks is crucial when seeking to evaluate the regulatory system in the wake of calamities. When laws allow activities to go forward that have even a trivial probability of a catastrophic event occurring, it is hard to know what to make of the underlying system when such an event occurs. When *Salmonella* contamination breaks out under the FDA's watch, does it indicate a systemic failure by the FDA—or is it just the occasional occurrence that statistically will arise because of regulation's balancing of tradeoffs? Does an oil spill, even a massive one, necessarily mean that the regulator failed to oversee sufficiently—or just that the nation's environment has suffered one of the inevitable tragedies that can be expected from a congressional policy that seeks to balance oil exploration with environmental concerns?

We believe the answers to these questions are much harder to determine than most people think they are, and certainly harder than they seem in the immediate aftermath of a disaster. We do not mean to suggest that regulations and regulatory officials never have any responsibility for the disasters that occur under their watch. We firmly accept that officials in regulatory agencies, like employees anywhere, could always do better. But in hindsight it will almost always be possible to conclude that regulatory agencies could have prevented a disaster from occurring. No matter how things look in hindsight, the mere existence of an accident or disaster does not necessarily mean that the regulatory system has broken down or that regulators have failed to carry out their mandates. Although any regulatory agency might fail to achieve the proper balance between competing objectives, an accident or disaster in itself does not tell us whether that agency failed in its mission. Indeed, provided that such disasters occur infrequently, it may well be impossible to judge from their occasional occurrence whether the regulatory agency has struck the optimal balance in its risk management strategies. With any low-probability risk, we would not expect the hazardous event to occur anything but infrequently.

Perhaps to some readers it will be obvious that regulatory systems seldom aim to eliminate all harm. Yet this point is hardly obvious if judged by the rhetoric typically deployed by politicians in the wake of disasters. President Obama's remarks after the Upper Big Branch mine disaster underscored his desire to act "so we can help make sure a disaster like this never happens again" (Obama 2010a). In his 2012 State of the Union address, he defended the legislative reforms enacted following the financial crisis by saying that they will ensure "a crisis like that never happens again" (Obama 2012). Statements like these, which are made by many politicians in addition to President Obama, convey an admirable goal for a regulatory system in an ideal world. The reality is,

though, that as long as mining and other industrial operations continue to take place, there will remain some probability, however small, that another disaster will occur. When that rare tragedy strikes again, the public and their policymakers may very well again claim that the regulatory system is broken. But doing so instinctively loses sight of the trade-offs created by inherently risky industrial operations. After the fact, nearly any disaster will appear to have been avoidable.

What is obvious after a disaster is not always obvious beforehand. Some disasters do arise because we fail to foresee them—sometimes notwithstanding the best efforts by researchers at think tanks, universities, public health groups, and government agencies. Should a product made with nanotechnology, for example, someday create a terrible public health crisis, it may be tempting to conclude, after the fact, that the regulatory system failed and that warning signs had been in place but went ignored (Bazerman and Watkins 2004; Taleb 2007). Yet at the present time, very little beyond abstract anxieties have emerged that would point to any specific problems or would indicate any obvious, best way to regulate nanotechnology (Coglianese 2010; Davies 2007).

Hazards from emerging technologies cannot be eliminated, or even necessarily managed properly, if they are hard to predict or even completely unknown. As Kip Viscusi and Richard Zeckhauser explain in their chapter in this book, statistical models based on normal distributions do not easily account for the thicker tails associated with a distribution that includes the low-probability, extreme events that exist in the world. Given the demonstrated difficulties people have in dealing with low-probability, extreme events (Kunreuther and Michel-Kerjan 2010), it should not be surprising that sometimes these events do still tragically occur.

In retrospect, BP's Oil Spill Response Plan—which identified worse-case scenarios for oil discharge into the Gulf of Mexico ranging from 28,033 to 250,000 barrels (Oil Spill Commission 2011:84)—was clearly out of line with the subsequent consequences of the actual spill. Although there may be very good reasons to fault BP for submitting and MMS for approving such a plan, the mere fact that the resulting oil spill dumped 4.9 million barrels rather than 250,000 barrels does not necessarily suggest that the company and its associated regulator were negligent. The difficulty in accounting for low-probability events is that they are just that—of low probability.

## **Improving Regulatory Performance Under Uncertainty**

Given that some disasters may be unavoidable and even unpredictable, and given the incentives for adopting quick, symbolic policies in their wake, is there anything that can be done? Of course, the answer to this

question is hardly straightforward and is in large part the reason this volume has been written—as one step toward improving the knowledge base needed to craft better regulatory institutions.

Even as more research proceeds, the work in this volume suggests some strategies to consider for limiting the potential for disasters. For example, one option might be to use safety management systems that place the onus on firms to demonstrate their ability to operate safely (Bennear this volume; Coglianesi and Lazer 2003). Another possibility would be to recalibrate financial requirements, imposing strict liability for damages and using taxes to promote more optimal risk taking by individuals and firms (Viscusi and Zeckhauser this volume). These and the other ideas in this volume merit policymakers' thoughtful consideration.

One of the primary difficulties associated with studying regulatory failures is that we do not observe accidents that could have happened but did not. We see the disasters that were not prevented; we seldom see evidence of the disasters that were successfully prevented, unless obvious precursors exist so that “near-miss” data can be collected. Yet to make good policy reform decisions, policymakers need to consider more than just the disasters. Disasters can be blinding as much as they are illuminating, clouding judgment and, as described, increasing the impetus for swift, radical action.

As we have suggested, fixating on a disaster or even a series of disasters as measures of regulatory performance can make it very difficult to consider the possibility that the system is, in fact, not fundamentally broken. Alternative hypotheses do need to be explored. Before concluding that something is seriously awry with the regulatory system or the regulator, all the evidence should be considered. It is striking how quickly NHTSA came in for sharp rebuke in 2010 after consumers reported numerous cases of sudden acceleration in Toyota vehicles (Lichtblau and Vlasic 2010). If allegedly malfunctioning accelerators in a subset of Toyota vehicles supposedly signaled a breakdown of auto safety regulation, why did we not see similar problems with all of Toyota's models or with other manufacturers' vehicles? In a similar vein, if we do not see blowouts in the wells used by many of the firms engaged in deep-water drilling, perhaps we should not assume that the problem lies with a systematic lack of adequate regulatory oversight.

Analogously, examining the regulatory mechanisms employed in other similarly situated regulatory environments (or time periods) can also be helpful. If the proposed causes of a regulatory failure in one domain mirror the activities of regulators in another domain, where no similar disaster occurred, perhaps the causes do not so clearly rest with regulation. For example, the Obama administration has asserted

that MMS failed in its offshore drilling oversight duties because the agency faced the conflicting responsibility of raising revenues from drilling fees (and lawfully pocketing the funds in its budget) as well as regulating those very same drilling platforms. But in addition to giving a close examination to the internal structure of the agency in question, anyone seeking to determine whether such a conflict really exists will also need to consider other regulatory domains where similar conditions are present.

Then again, relying on the absence of a failure in one domain to question a purported regulatory cause in another domain presents its own problems. Because of the low probabilities and inherent risk trade-offs, assuming failure because of a disaster, and assuming no failure because of no disaster, could well both be analytic and empirical errors. Even so, gathering additional data can only help in making more reasoned assessments in the wake of catastrophes.

In addition to examining other regulatory environments, evaluations of regulatory performance unrelated to the disaster but still within the policy domain of interest can also prove helpful to decision makers. Much can be learned from little failures as well as little successes. The recent implementation of broad governmental data gathering projects such as the Office of Management and Budget's Performance Assessment Rating Tool and the Office of Personal Management's Federal Employee Viewpoint Survey, along with other data sets made available via the Data.gov website, present some promising possibilities for use within regulatory program evaluations. Regulators themselves should be encouraged to collect more data on industry operations to assist in examining performance in a more fine-grained manner than just focusing on infrequent disasters.

Clearly, we should all remain wary when anyone trots out stock reasons for regulatory failure in the wake of any disaster, just as we should raise questions about whether regulations really inhibit economic recovery after a recession (Brooks 2011). We should be skeptical not for skepticism's sake but because acting on stock reactions could lead to other kinds of failures in the future. Rulemaking delay, for example, is sometimes thought to explain some types of regulatory failure (Mashaw and Harfst 1990; McGarity 1992); however, increasing rulemaking speed could contribute to still other failures (Magill 1995; Yackee and Yackee this volume). Especially if delay is not the real reason for a calamity, procedural responses to increase the speed of decision making might only encourage haste and increase the probability of future disasters from poorly considered regulation. For example, statutory deadlines have been adopted to increase the pace of rulemaking (Gersen and O'Connell 2008; Magill 1995), but research on such deadlines imposed on FDA drug



reviews has suggested that mandated approval times actually increase the probability of subsequent safety problems (Carpenter et al. 2008; see also Moffitt this volume). Thus, an effort to solve the problem of delay by using deadlines may create another problem to replace it.

Similar care should be taken when considering allegations of, and responses to, regulatory capture. Cases like the Interstate Commerce Commission's close association with the railroads in the 1930s and 1940s provide good reason to believe that captured regulators are capable of implementing rules in ways that benefit regulated firms at the expense of the public (Huntington 1952). Yet there is also good reason to believe that some cooperation between the regulatory agency and the industry actually improves regulators' chances of eliciting data from regulated entities that can help improve overall regulatory performance (Coglianese et al. 2004).

In addition to taking a more critical approach to claims about regulation and the regulatory process, policymakers and members of the public would do well to consider ways of limiting the damage from the inherent biases and limitations of the policy process. Mechanisms exist to limit the impacts of potentially rash responses to catastrophes. For example, by imposing sunset provisions on resulting legislation, political actors can satisfy constituents with (symbolic) action while at the same limiting the role that inertia plays in entrenching uninformed laws forever (Romano this volume). Such sunset provisions may even dampen, we might hope, the tendency toward overreaction or at least promote greater effort to generate information that will be needed for thoughtful decision making when a law comes up for renewal.

Another key need is to devote more resources to retrospective evaluations of regulatory systems. For at least the past thirty years, U.S. regulators—operating under successive executive orders—have engaged in much prospective benefit-cost analysis of important rules to ensure that the benefits exceed the corresponding costs. Although the merits of such requirements continue to be a source of debate (Ackerman and Heinzerling 2004; Adler and Posner 2006), they have certainly added rigor to the decision-making climate surrounding proposed regulations. However, no similar, top-level requirements exist for analyzing the impacts of rules retrospectively (Coglianese and Benneer 2005; Greenstone 2009). Although academic studies can yield important evidence on the effects of regulations, too few retrospective analyses have been pursued or funded by government agencies relative to the volume of regulation that exists or the magnitude of the problems that existing regulation aims to solve. Increasing the quantity and rigor of retrospective evaluation will be helpful in overcoming poorly conceived policy shifts that can occur in response to regulatory disasters. By engaging in retrospective



evaluation, the longer-term effects of the biases and limitations associated with policy reform in the wake of catastrophe can be better understood and, one hopes, significantly limited.

## Conclusion

The calamities of the past few years that we have mentioned in this chapter—including the housing meltdown and subsequent financial collapse, the BP oil spill, the Upper Big Branch mine disaster, the pipeline explosion in California, the Toyota auto recall, and the *Salmonella* outbreak—have each brought with them increased, even intense, public and political interest in the role of regulation in the U.S. economy. Moreover, many of these catastrophes have been accompanied by dramatic changes in the underlying regulatory systems, from the creation of new agencies to the adoption of extensive new laws.

We have argued in this chapter that although such sweeping reforms are predictable, they may be neither necessary nor sound, at least not without a better empirical grounding in the true determinants of regulatory performance. In addition to pointing out biases and limitations, we have also suggested a number of mechanisms that can help overcome these problematic outcomes either during or after their implementation. Most important, we have attempted to show why devoting greater empirical and analytical attention to regulation—as this volume seeks to do—is a sensible part of an overall strategy for improving the performance of the U.S. regulatory system.

## Notes

1. By “regulatory breakdown,” we mean a significant and systemic failure by regulation or the regulatory process that results in a meaningful loss of public value, particularly when regulatory failings contribute to catastrophic harm in the form of major industrial accidents or massive financial or economic losses. In this sense, we mean something similar to what others have meant when they have used the language of regulatory breakdown. For example, Joskow (1974) and Mullin (1992) conceive of regulatory breakdown in terms of the disruption of equilibrium in the political, economic, and institutional environment within which a regulatory agency operates, whereas Frank and Lombness (1988) use the term to refer to the abandonment of effective regulatory enforcement. The majority members of the National Commission on the Causes of the Financial and Economic Crisis in the United States (2011) deplored a “systemic breakdown in accountability and ethics” that they concluded had undermined market integrity, and Davidson (2011) has written summarily about the “regulatory breakdown that contributed so clearly to the economic crisis.”

2. Even the Commission’s dissenting reports, which emphasized different causal accounts of the crisis, acknowledged that “ineffective regulation and supervision” helped explain certain “irresponsible” financial practices (2011:414), that

“the SEC’s supervisory process was weak” (446), and that federal housing policy was “the sine qua non of the financial crisis” (444).

3. We recognize that claims about hasty or ill-informed policy decision making can be influenced by ideology, too. Our own belief is that decision makers across the entire ideological spectrum succumb too readily to reflexive judgments, and we have no reason to believe that Democratic or Republican legislators and administrators are more (or less) prone to hasty decisions.

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