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### Flexible Regulation Scholarship Blossoms and Diversifies: 1980-2012

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## **FLEXIBLE REGULATION SCHOLARSHIP BLOSSOMS AND DIVERSIFIES: 1980-2012**

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The last two chapters have traced the historical and philosophical paths of flexible regulation, in order to understand what some of its leading proponents sought, and what they assumed, in creating a regulatory model that actively opened itself to other, non-state forces including the market, non-state standard-setters, and community deliberation. By broadening our lens from the four key perspectives described in the last chapter toward the flexible regulation scholarship more broadly, we can take the measure of flexible regulation scholarship primarily as it existed at the time of the financial crisis, with a view to understanding its theoretical assumptions and underpinnings, its reliance on market-based assumptions, its relationship to the notion of innovation, and its continued relevance.

In the context of its time, flexible regulation could be understood in part as an effort to find a way forward for the state, in the straitened circumstances of globalization, manufactured risk and uncertainty, the rise of neo-conservatism, and the shattering effects of post-structuralism. Scholars learned to focus on what could be achieved through smarter and more effective regulation and through a reorientation from regulation to the broader field of governance, meaning the study of “order and disorder, efficiency and legitimacy all in the context of the hybridization of modes of control that allow the production of fragmented and multidimensional order *within* the state, *by* the state, *without* the state, and *beyond* the state.”<sup>1</sup> In politics but in scholarship too, the 1990s and early 2000s were marked by considerable hope that it might be possible to transcend old-style, left/right political stalemates. If, following Foucault, all human interaction bears the marks of power and regulation, then focusing on beyond-state factors in particular opens up whole new possibilities for transformative change.

Different branches of flexible regulation are more or less pragmatic, more or less explicitly committed to particular normative objectives, and more or less willing to

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<sup>1</sup> David Levi-Faur, ‘ “Big government” to “big governance”?’ in David Levi-Faur (ed.), *The Oxford Handbook of Governance* (New York: Oxford University Press, 2012), p. 3.

embrace the idea of means-end reflexivity – that is, the notion that one’s practical experience as a regulator should deeply influence one’s own regulatory goals, as well as strategies. Within the varied scholarship on innovation and regulation, at least three distinct subject matter threads are also apparent: environmental law, financial regulation and corporate governance, and administrative law. Each takes a particular perspective on innovation and its relationship to regulation, and each contains varying and even contrary positions. As a philosophical project, flexible regulation can also be more or less theoretically driven, and more or less pragmatic. What we see, in some of these models, are the after-effects of post-structuralism and critical legal theory and a program for moving past them through democratic deliberation, even while accepting the contingency and contestability of any particular set of policy prescriptions.<sup>2</sup>

Yet flexible regulation scholarship is not agnostic. The scholars whose work we are considering here are overwhelmingly concerned with what, in the United States and Canada at least, would be understood as politically progressive, justice-oriented, equality-seeking priorities: they want to use the new methods in order to advance more effective environmental regulation, including mitigating climate change; better workplace safety and employment discrimination; a more accountable and responsive state; more effective and more democratic oversight of financial actors; and the like. Benefit to private parties or the search for a more efficient market are not these scholars’ concerns. While the environmental, finance, and administrative law scholarship is distinct, none of these subject matter areas globally takes the un-nuanced position that innovation is beneficial by definition.

The discussion below is based on a review of the 198 US law review articles that were the most influential within the flexible regulation field between 1980 and 2012, and which also discussed the topic of innovation.<sup>3</sup> This literature is still consequential today, as well as being historically interesting, because flexible regulation principles and methods continue to structure large swaths of contemporary regulation across Anglo-

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<sup>2</sup> Experimentalism is one approach that is philosophically located within the pragmatic philosophical tradition, which for Dorf and Sabel assumes

[An] account of thought and action as problem solving in a world, familiar to our time, that is bereft of first principles and beset by unintended consequences, ambiguity, and difference. Thus, a central theme ... is the reciprocal determination of means and ends: ... the objectives presumed in the guiding understandings of theories, strategies, or ideals of justice are transformed in the light of the experience of their pursuit, and these transformations in turn redefine what counts as a means to a guiding end. Pragmatism thus takes the pervasiveness of unintended consequences, understood most generally as the impossibility of defining first principles that survive the effort to realize them, as a constitutive feature of thought and action, and not as an unfortunate incident of modern political life.

Michael C. Dorf & Charles F. Sabel, ‘A constitution of democratic experimentalism’ (1998) 98 *Colum L Rev* 267–473.

<sup>3</sup> See Appendix 1, Methodology for more information. The qualitative coding questions are contained in Appendix 2, and more information on the results is contained in Appendix 3. This book chapter covers only a few of the findings that emerge from the qualitative study and the cluster analysis performed.

American jurisdictions (and beyond). This literature expresses not only where we have been, but where we are.

In the immediate post-crisis years, one concern was that much of flexible regulation, at least in finance, would be deemed ineffective and jettisoned in favor of more prescriptive, bright-line regimes that sometimes nostalgically and unrealistically seemed to harken back to earlier times. For an observer like me, this raised real concerns about effectiveness in responding to the significant challenges that innovation presents for regulation. The precise balance between top-down, bright-line rules and more flexible standards may not have been struck perfectly (almost certainly was not struck perfectly) in the years before the crisis; yet, bright-line prescriptions have well-established limitations. More recently, as populist, anti-progressive waves have swept much of the Western world, the far greater concern, especially in the United States, is that not only post-crisis but a good portion of post-1960 social, economic and environmental regulation could be rolled back.

Charting a path forward, especially for progressive priorities, in this era of great uncertainty requires that we take the measure of where we are, including both how technically reasonable and how normatively defensible our choices have been.

### **An empirical review of the flexible regulation scholarship, 1980 - 2012**

The flexible regulation literature grew through the period of study, with the majority of articles published after about 1997. Table 4.1 below characterizes the articles by primary subject matter.

<b>Primary Subject Matter</b>	<b>Frequency (out of 198 articles)</b>
Environment	80 (40%)
Finance/corporate governance	45 (23%)
Other (henceforth “Administrative law”)	41 (21%)
Science/technology/medicine/intellectual property (IP)	21 (11%)
Labor or occupational health and/or safety	6 (3%)
Other social services	3 (2%)
Education	2 (1%)

Table 4.1 Primary subject matter of articles

Within this sample group, environmental articles formed the largest group of articles by subject matter. Financial regulation and corporate governance articles were the second

largest group. Forty-one articles were identified as having an “other” subject matter and made up the third-largest group. Most of these “others” concern “big-picture” subject matters such as governance, administrative law, government relations, legal theory, and the like; a smaller subset reference specific subject matter areas. Given the shared concerns with administrative law, public law, and governance in this group, it is shorthanded as “administrative law” for the rest of this chapter.<sup>4</sup>

Figure 4.1 below displays the number of articles in the sample that were published in each calendar year since 1985, when the earliest articles in the sample were published.<sup>5</sup> It shows that the vast majority of the most influential scholarship was published after around 1997. After 2002, the volume of publications remained relatively steady.<sup>6</sup> The graph also disaggregates the distribution of environmental, financial and corporate governance, and administrative law articles. Environmental law articles were the first to rise in number, around 1995, and output remained high and relatively stable from the late 1990s onward. Administrative Law articles began to rise around 2000, but numbers dropped off relative to the other categories around 2008. The number of financial and corporate governance articles rose slowly and steadily from the late 1990s forward, numerically surpassing the administrative law articles around 2006.

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<sup>4</sup> The breakdown is: administrative law (12 articles); governance, including local and transnational (8); legal and constitutional theory (7); general policy (5); government relations (4); government agencies (3); civil rights and antipoverty initiatives (2).

<sup>5</sup> All three first articles were published in the *Stanford Law Review*. They were Howard Latin, ‘Ideal versus real regulatory efficiency: implementation of uniform standards and ‘fine-tuning’ regulatory reforms’ (1985) 37 *Stan L Rev* 1267-332; Bruce A. Ackerman and Richard B. Stewart, ‘Reforming environmental law’ (1985) 37 *Stan L Rev* 1333-65 (commenting on the Latin article); and Cass R. Sunstein, ‘Interest groups in American public law’ (1985) 38 *Stan L Rev* 29-87.

<sup>6</sup> The relatively small number of articles published after 2010 likely reflects the timing of data collection rather than a dearth of publications during that year. In calculating frequency of an article’s citation, to even the playing field between older and newer articles, I counted only citations within five years of when an article was published. Since there is no way to know authoritatively which more recent articles will become the most heavily cited, however, there is a limit to the ability to compensate for the passage of time.

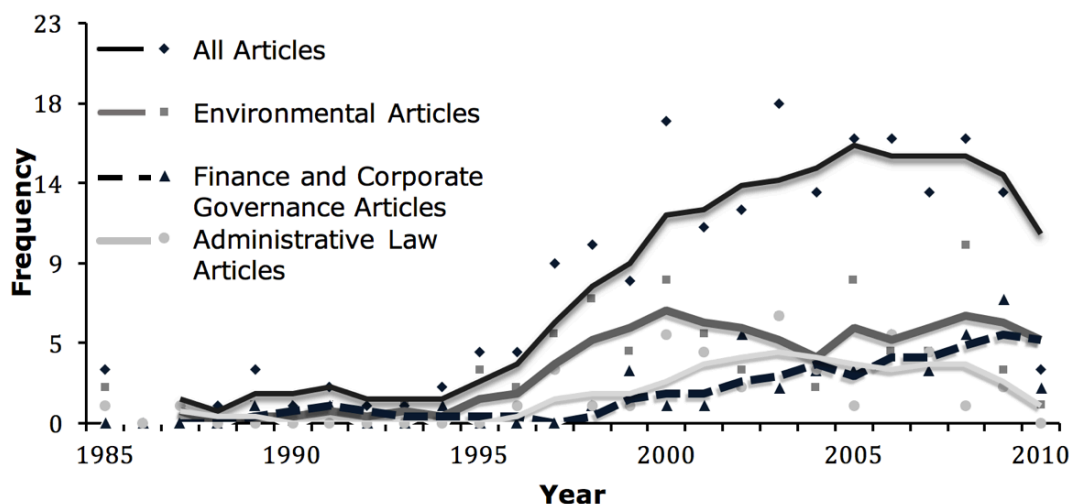


Figure 4.1 The frequency of articles across time. The trend lines depict the three-year moving average.

Looking at the relationship between innovation and regulation that this project has sought to unearth, the literature displays a remarkable and, in retrospect, predictable consistency: regulation scholars are interested in regulation. That is, the vast majority (91%) of the articles in the sample, deal with *regulatory* innovations – not innovations in and by the private sector actors operating in those sectors. This result reflects the primary concerns, law and regulation, of the scholars whose work was captured.<sup>7</sup> It is a forceful reminder of the scholarly community operating here: these scholars are examining regulatory

<sup>7</sup> It also reflects the search terms used to create the database. Names of specific private sector innovations (e.g., financial innovations like CDOs, ABSs, etc.; or other specific innovations including new pollution mitigation technologies, new nanotechnologies, GMOs or genetic modification in health care regulation, and any number of other important innovations) were not used as search terms. Including the names of all potential innovations would have been practically unworkable, and would not have helped illuminate the relationship between flexible regulation and innovation that this book is concerned with. Note, however, that notwithstanding that no specific innovations were included in search terms, the financial innovation articles still discussed specific underlying private sector innovations in a way that other articles from environmental or health regulation, for example, did not.

Notably, of the 9% of articles coded as “private sector innovations”, not regulatory innovations, most still have a strong regulatory overlay. The difference is that they focus on private sector innovations first, with regulatory implications second, rather than focusing primarily on regulatory innovations as the other 91% of articles do, sometimes with private sector innovations of secondary interest. For example, the three most-cited of these 18 private innovation-focused articles, with fifteen or more cites each, are Wendy E. Wagner, ‘The triumph of technology based standards’ (2000) *U Ill L Rev* 83-114; Jeffrey J. Rachlinski, ‘Innovations in environmental policy: The psychology of global climate change’ (2000) *U Ill L Rev* 299-319; and Susan Sturm, ‘Second generation employment discrimination: a structural approach’ (2001) *101 Colum L Rev* 458-568. Of the 18 articles, only two discuss private law (commercial or contract law) as functional alternatives to regulation; all the rest discuss private sector innovation as it relates to or interacts with formal regulatory regimes. Those two articles are omitted from Table 4.2 below, but the other 16 are included as relevant.

innovations and considering proposals for and the application of new regulatory forms. Private innovation, and the question of whether it is beneficial or not, is simply not their central concern.

Therefore, if a positive view about private sector innovation was operating in this literature, it could not have been because private sector innovation was a direct object of study. It would have had to be operating at the level of background assumptions about what kinds of regulatory innovations were beneficial, and why.

### How is flexible regulation meant to be better?

The new governance and experimentalist work helps to highlight just how far the scholarship had moved, by the 2000s, toward a regulatory model that embraced change, including human-generated innovation, and was designed to respond to the attendant contingency and uncertainty. The point is not that this scholarship directly influenced regulatory strategy most of the time, though it may have influenced it in indirect ways. The point is that flexible regulatory approaches, including most recently the new governance approaches, are of a piece with their disintermediated, heterogeneously populated, (aspirationally) deliberative, and “disruptive” times, and alive to the regulatory challenges, including the increasing contingency, variability, and dynamism that characterized many regulated spaces.

A post-crisis observer could be concerned that a flexible regulator using these methods could become so fractured in its approach, with all this variability and contingency in methods and standards, that it loses sight of its regulatory goals, and the public interest, altogether. So what exactly is the point of all this flexibility again? This scholarship claims that it is arguing for flexibility, not for its own sake or purely on efficiency grounds, but because it will also make regulation more *effective*. It claims that its arguments for flexibility are not in fact arguments for deregulation in disguise. As Table 4.2 demonstrates, the main reasons that the literature advanced flexibility was as a means for improving regulation overall, with regulatory *congruence* – achieving the regulator’s goals – appearing as the primary justification twice as frequently as does making regulation less costly, or more efficient.

Why regulatory innovation is “good” relative to what came before	Frequency
1. Congruence: the old way was ineffective / didn’t work / didn’t “fit / didn’t achieve the innovator’s (including regulator’s, if regulator is innovating) goals	72 (36%)
2. Cost: the old way was costly / inefficient	34 (17%)
3. Flexibility: the old way was inflexible / couldn’t move, adapt quickly enough	25 (13%)

4. Transparency & accountability: the old way was unaccountable / not transparent / captured	29 (15%)
5. Fairness: the old way was unfair / undemocratic	15 (8%)
6. Process: (beyond traditional understandings of democratic methods) the old way was not consultative or collaborative enough, unrepresentative, dealt with wrong communities or didn't include necessary stakeholders	21 (11%)
TOTAL (Missing = 2)	196

Table 4.2 Type of justification for flexible regulation in the literature by frequency

Table 4.2 sets out the multiple justifications that underlie flexible regulation's preference for flexibility. After congruence and efficiency, the third most common justification for more flexible regulatory structures was to make regulation more transparent and accountable; the fourth was to make it more flexible and adaptable (generally appearing in articles where the stated worry was that industry practice was moving quickly and the regulator needed to be able to respond adequately); the fifth was to enable more consultative, collaborative processes; and the sixth was to improve fairness. This suggests that at least in terms of the overarching arguments they were making, flexible regulation scholars remained heavily concerned with familiar public law values: transparency and accountability, process, fairness, and achieving stated regulatory goals. Concerns about efficiency are clearly present, but this is not scholarship that emphasized efficiency, cost, or market-oriented assessments of return or value at the expense of other regulatory values.

Of course, aspirations are one thing and methods are another. What, then, are the mechanisms through which flexible regulation scholarship, in general, sought to achieve these aims of congruence, efficiency, transparency and accountability, flexibility, better process and greater fairness?

### The regulatory scaffolding and the spaces within it

One helpful way to describe flexible regulatory approaches is through the metaphor of legal "architecture"<sup>8</sup>. Put another way, we can think of flexible regulation as constructing "regulatory scaffolding"<sup>9</sup>. The term "scaffolding" evokes an image of public actors or regulators establishing the overarching boundaries, foundations and institutional framing of a regulated space, while intentionally leaving pre-defined, framed-out spaces open.

<sup>8</sup> See, e.g., Susan Sturm, 'The architecture of inclusion: advancing workplace equity in higher education' (2006) 29 Harv JL & Gender 247, at 249-334.

<sup>9</sup> Another, more organic metaphor that evokes a somewhat different image – of neither private nor public forces setting the parameters for the other – is the "braiding" of public and private governance regimes. Ronald Gilson et al., 'Contracting for innovation: vertical disintegration and interfirm collaboration' (2009) 109 Colum L Rev 431-502, at 489.



The key to understanding flexible regulation's approach is that it does not aim to delimit exhaustively every contour or detail of the regulatory regime. It aims to be permeable – to change coming from outside the regulatory structure and to the impact of other non-legal forces, such as markets and community norms. At the same time, it is an intentionally designed structure. It is more than an inert casing, like a balloon, for whatever fills it out. Each of the four perspectives described in the last chapter adopts some form of scaffolding approach.

What does this mean? Recall how the classic Welfare State established a built regulatory environment characterized by bright-line requirements that set out and then comprehensively regulated the four corners of an industry. In the United States for example, whether for the regulation of common carriers (rails, trucks, telephone companies) under the Interstate Commerce Act of 1887, or for banks under the Glass-Steagall Act of 1933, the Welfare State established the scope of an industry (separating one common carrier's coverage from another, or commercial banking from securities); set top-down, universal standards for it (up to and including rate-setting and interest rate controls); and monitored industry's implementation of and compliance with those rules.<sup>10</sup> Sanctions for non-compliance were laid out in rule-based terms. The Welfare State and the regulatory state overlapped in time and share many common features – they are not watertight compartments – but it is nevertheless descriptively accurate to say that Welfare State regulation especially was characterized by floors, ceilings, boundaries, and (at least on paper) immovable requirements.

Understanding regulation as open, meta-level scaffolding provokes a shift in regulatory approach at every stage of that regulatory project.<sup>11</sup> For example, when a scaffolding approach is used around regulatory standard-setting, it manifests as a shift from a bright-line approach to one that can incorporate changing technical knowledge within industry. In environmental emissions regulation, then, the standards would change from a static

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<sup>10</sup> Note that the Glass-Steagall Act of 1933, along with separating commercial banking from securities, also prohibited banks from paying interest on demand deposits and imposed interest rate ceilings on other kinds of depository accounts. US federal law also prohibited federal banks from engaging in other lines of business including real estate ownership and insurance underwriting: R. Alton Gilbert, 'Requiem for Regulation Q: What it did and why it passed away', Federal Reserve Bank of St. Louis, February 1986, available at [https://research.stlouisfed.org/publications/review/86/02/Requiem\\_Feb1986.pdf](https://research.stlouisfed.org/publications/review/86/02/Requiem_Feb1986.pdf); Saule T. Omarova, 'The quiet metamorphosis: how derivatives changed the "business of banking"' (2009) 63 U Miami L Rev 1041-109, at 1049-50.

<sup>11</sup> The stages blur, overlap with and inform each other. As noted in this book's introduction, regulation is often described as requiring three fundamental things: some capacity for standard-setting, some capacity for information-gathering, and some capacity for behavior modification. Literature identifying "stages of regulation" is relatively sparse but see Kenneth W. Abbott & Duncan Snidal, 'The governance triangle: regulatory standards institutions and the shadow of the law, in Walter Mattli & Ngaire Woods (eds.), *The Politics of Global Regulation* (Princeton: Princeton University Press, 2009), pp. 44, 46 (identifying five stages of regulatory activity: (1) agenda-setting, (2) negotiation of standards, (3) implementation, (4) monitoring, and (5) enforcement). In most flexible regulation scholarship, as in (non-captured) regulation generally, the initial agenda-setting stage remains with the state.

limit of parts-per-million of effluent to a standard based on the “best available technology” – a more dynamic and iterative placeholder.<sup>12</sup> In that case, new improvements in environmental technology would set an evolving standard against which industry actors’ performance could be measured. (Less successfully, the same instinct underlay other decisions, like that under the Basel II capital adequacy standards discussed earlier, to allow designated financial institutions to use their own proprietary risk analytic systems to determine how much capital they needed to keep on hand.)

Ayres’s and Braithwaite’s *Responsive Regulation* presents another version of the shift from two-dimensional “floors and ceilings” toward three-dimensional regulatory scaffolding (and *Smart Regulation* builds in even more dimensionality).<sup>13</sup> At the *monitoring* and *implementation* stages, for example, as interactions move up and down the regulatory and enforcement pyramids, responsive regulatory approaches give regulators and enforcement staffers a more structured, yet still customizable set of decision-making tools than a non-negotiable, statutorily defined, centrally enforced bright-line floors-and-ceilings approach could provide. Flexible regulation – in responsive regulation, meaning the enforcement and regulatory pyramids based on tit-for-tat interaction – frame an iterative decision-making process just as architectural scaffolding would frame a building.

For flexible regulation to function effectively on its own terms, its initial underlying design principles should be generally correct, and then it must be capable of being modified and improved based on experience. In any environment, certain actions – criminal conduct, for example – must still be prohibited outright. Not everything will be amenable to modification, and part of the challenge is to identify where flexibility will be useful and where it will not.<sup>14</sup> Reflexive law and experimentalism in particular erect the firmest bits of their scaffolding around ensuring that duly democratic, deliberative, procedurally fair decision-making occurs within institutions and organizations. Every regulatory structure will be a mix of bright-line, top-down, rule-based requirements and

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<sup>12</sup> Andrew Flynn & Robert Baylis, ‘Pollution regulation and ecological modernization: the formulation and implementation of best available techniques not entailing excessive costs’ (1996) 1 Int Plan Stud 311-29 (describing the origins of the term).

<sup>13</sup> Ian Ayres & John Braithwaite, *Responsive Regulation: Transcending the Deregulatory Debate* (New York: Oxford University Press, 1992). Flexible regulation does not reject the use of regulatory floors and ceilings. In fact, it may incorporate regulatory ceilings or, more often, floors into its regulatory structure. *See, e.g.*, William W. Buzbee, ‘Asymmetrical regulation: risk, preemption, and the floor/ceiling distinction’ (2007) 82 NYU L Rev.1547-1619; Benjamin K. Sovacool, ‘The best of both worlds: environmental federalism and the need for federal action on renewable energy and climate change’ (2008) 27 Stan Envl LJ 397-476.

<sup>14</sup> What we see in the literature is that flexibility is more likely to be recommended around areas where regulators must be nimble, or where private actors have access to information that regulators do not, or where involving private actors in the regulatory process is seen to produce important ancillary benefits such as fostering an endogenous “culture of compliance”. Flexibility makes less sense where certainty and consistency is more important than perfect congruence, *see* Colin S. Diver, ‘Optimal precision of administrative rules’ (1983) 93 Yale LJ 65-109; Cristie L. Ford, ‘Principles-based securities regulation in the wake of the global financial crisis’ (2010) 45 McGill L Rev 257–307.

more flexible ones. Nevertheless, the leitmotiv animating flexible regulation is the conviction that one can build, within the regulatory / administrative space that lies between private action and political action, a new kind of decision-making, analytic, or jurisdictional architecture that can evolve and respond to information, even while reflecting the public interest.

The very idea of scaffolding regulation also captures the more pluralist notion of legitimate authority that characterizes (post)modern conceptions of regulation. Scholars and regulators have pinned their hopes not on regulation as a force unto itself, so much as on regulation as an effective mechanism for leveraging other forces operating in society.<sup>15</sup> Those other forces operate “in the shadow of” law or regulation, and the point of the regulation is to influence and channel them.<sup>16</sup> All the same, the very fact that regulation aims to be flexible – to erect scaffolding, not the whole building – implies that there must be something, some legitimate force possessing agency, that regulation could seek to frame and channel and not just supplant.

*What* fills in the spaces in the scaffolding depends on the model, and the choice tells us a great deal about how “neoliberal”, “progressive”, or agnostic flexible regulation actually turns out to be. Three main forces fill in the regulatory framework, according to different groups of scholars: market forces (in various versions, as described below); deliberation and community norms; and private industry standards. The three are not totally comparable: the first two are processes while the third relates to concrete standards, which can be influenced by the first two processes. But what is crucial is the role these mechanisms play: they are the prime movers in the account, with direct public regulatory intervention operating more “at a distance”.<sup>17</sup>

### *How central were market forces?*

In the current moment, when much of the regulation scholarship of the last thirty years is being re-evaluated, this is a pressing question. What *kind* of regulatory innovations were being advanced by the 91% of articles in the sample that dealt with regulatory, as opposed to private sector, innovations? Did regulation scholarship privilege market forces or market-based evaluation methods over other forces and if so, what were the anticipated distributional effects? Why was this regulatory innovation considered by the scholar to be “good” relative to what came before? Who were the standard-setters in the

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<sup>15</sup> Lessig describes this leveraging power as a unique feature of law: ‘The new Chicago school’ (1998) 27 J Legal Stud 661–91, at 666.

<sup>16</sup> Adrienne Héritier & Dirk Lemkuhl, ‘The shadow of hierarchy and new modes of governance’ (2008) 28 J Pub Pol’y 1–17; also Michael P. Vandenbergh, ‘The private life of public law’ (2005) 105 Colum L Rev 2029–96, at 2030.

<sup>17</sup> Neil Gunningham, ‘Environment law, regulation and governance: shifting architectures’ (2009) 21 J Envtl L 179–212 at 180–4. Other terms are “indirect regulation” or “regulation by proxy” – see Harold Seidman & Robert S. Gilmour, *Politics, Position, and Power: From the Positive to the Regulatory State* (New York: Oxford University Press, 1986) – or “third party government” – see Lester M. Salamon, *The Tools of Government: A Guide to New Governance* (New York: Oxford University Press, 2002).

account; that is, who decided whether that “good” was being achieved? And finally, what was the evaluation method for determining whether that “good” was being achieved?

What we see is a split in the strategies that different scholars advocate. Only a small minority of the articles advanced straightforward market-based arguments: less than one sixteenth deployed pure “market forces” as the primary basis of the regulatory innovation.<sup>18</sup> On the other hand, about another third of the articles advanced new regulatory strategies or structures that nevertheless, in terms of continued public authority and agency, maintained a strong and relatively top-down regulatory presence. Within this category, slightly more than a fifth of all the regulatory innovation articles in the set describe “other” innovations, which were essentially concerned with reallocating authority between branches or levels of government.<sup>19</sup> These are less relevant to our inquiry, in the sense that they are not really flexible regulation proposals. A further one eighth of the regulatory innovation articles argued for imposing new mandatory or bright-line regulatory standards. To a certain degree, the purely market-based articles on one side, and the “other” and bright-line mandatory standards articles on the other represent polar perspectives, in ideological terms, that we might have recognized before flexible regulation: deregulation and market-based programs, versus bright-line rules.

Of greater interest here, almost half the regulatory innovation articles in the set advanced arguments in favor of regulatory innovations that were significantly more porous to and cooperative with industry or private actors than traditional regulatory structures were, while not being deregulatory. This is perhaps the signal change that the regulatory state brings. In those accounts, industry or private actors were often to be motivated using engagement, dialogue and incentives rather than traditional sanction-oriented regulatory tools. Almost half these articles envision either greater cooperation with private actors, or developing incentives-based regimes. On their own, these categories do not explain the nature of the cooperation or how heavily those incentives rely on market-based, or other,

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<sup>18</sup> The market-based articles with more than fifteen cites within the database are Troy A. Paredes, ‘On the decision to regulate hedge funds: the SEC’s regulatory philosophy, style, and mission’ (2006) 2006 U Ill L Rev 975-1036; Roberta Romano, ‘Empowering investors: a market approach to securities regulation’ (1998) 107 Yale LJ 2359-2430; and James Salzman & J.B. Ruhl, ‘Currencies and the commodification of environmental law’ (2000) 53 Stan L Rev 607-94 (this last identifying the limits of environmental trading markets to “value” non-fungible environmental assets).

<sup>19</sup> Three quarters of the articles in the “other” category describe regulatory innovations that transcend regulatory scales or jurisdiction, or reallocate responsibilities between either levels or branches of government. These articles generally have more to do with federalism or allocation of authority between existing regulators than they do with regulatory innovations, so they are excluded from Figure 5.2 below. E.g., the articles with more than fifteen cites in this category are Benedict Kingsbury, Nico Krisch & Richard B. Stewart, ‘The emergence of global administrative law’ (2005) 68 Law & Contemp Probs 15-61; Nicholas Bagley & Richard L. Revesz, ‘Centralized oversight of the regulatory state’ (2006) 106 Colum L Rev 1260-1329; David E. Adelman & Kirsten H. Engel, ‘Reorienting state climate change policies to induce technological change’ (2008) 50 Ariz L Rev 835-78. One other article in the “other” category has more than fifteen cites but is an outlier in terms of topic: it is Cass R. Sunstein, ‘Cognition and cost-benefit analysis’ (2000) 29 J Leg Stud 1059-103.

structures; however, at a minimum they bring home the degree to which cooperation with regulated actors, and the economics-derived rational actor model on whom incentives-based models rely, underpin close to half the regulatory prescriptions in the set.

Arguments in favor of new information-forcing standards stand somewhat in the middle between old and new, traditional (in its bipolar forms) and regulatory state / cooperative: they are mandatory top-down standards that require private actors to disclose information (without trying to cooperate or extending a great deal of faith to private actors), on the assumption that that information will catalyze non-state forces to respond (thereby activating indirect incentives and moving costly enforcement and sanctioning obligations out of the hands of the state).<sup>20</sup> Dispositionally they straddle the more opposing positions.

Figure 4.2 depicts the four most popular regulatory innovations over time, not including the “other” category. The most frequently advocated or described new regulatory methods were those that spanned the so-called public/private divide or were more collaborative in some way; followed by, tied with the “other” category, regulatory innovations in mandatory standards; then incentives-based regulatory design; and then new information-forcing requirements.<sup>21</sup> We see that articles advocating mandatory standards, incentive-based strategies, and information-forcing regulations have remained fairly steady since the mid 1990’s. While numbers are small, arguments in favor of mandatory standards rose slowly over the last decade covered here, and information-forcing regulations probably show a general upward trajectory, while incentive-based recommendations have dropped. The strategy of spanning the public/private divide or incorporating private players or standards into regulation experienced a dramatic increase between about 1995 and 2005, and dropped off sharply thereafter.

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<sup>20</sup> See, e.g., Bradley Karkkainen, ‘Information as environmental regulation: TRI and performance benchmarking, precursor to a new paradigm?’ (2001) 89 *Geo LJ* 257-370; or Daniel C. Esty, ‘Environmental protection in the information age’ (2004) 79 *NYU L Rev* 115-211.

<sup>21</sup> The proportions are as follows: “spanning public/private divide in new way, incorporating private standards or capacity, collaborating,” n=66, or 37%; “other” as discussed above, and “new mandatory standards or top-down strategy – e.g., ex ante licensing, bright-line rules or certification requirements,” each n=28, or 16%; “incentive-based regulatory design to align private actors’ interests with public interests,” n=21, 12%; “new information-forcing requirements,” n=20, or 11%; “market forces,” n=11 or 6%; and both “bringing in third parties as quasi-official regulatory surrogates e.g., monitors, auditors, certifiers” and “bringing in civil society or community e.g., name-and-shame or awards for industry leaders” at n=3 each, or 2% each.

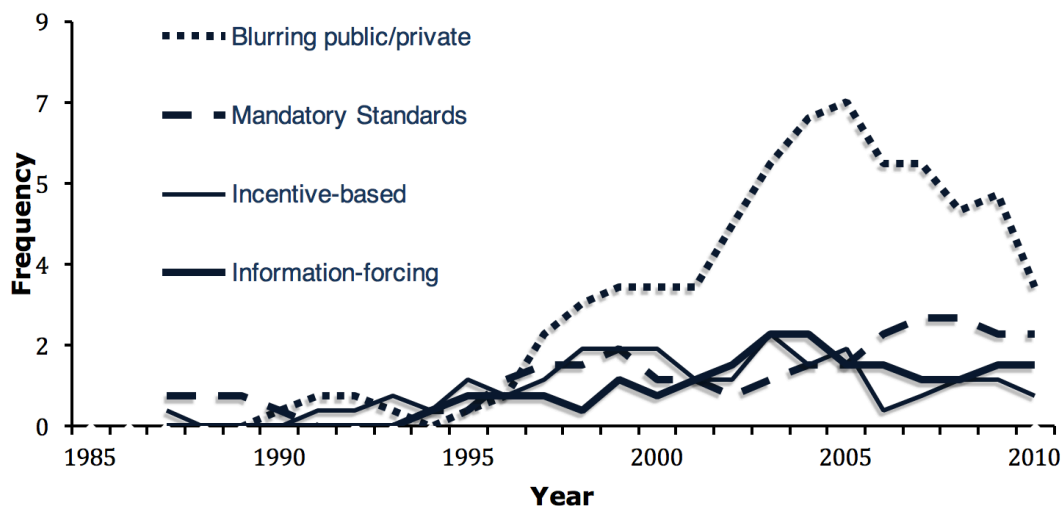


Figure 4.2 The frequency of articles for the four most popular regulatory innovations advocated across time. The lines depict the three-year moving average.

### *What was the regulatory innovation trying to achieve?*

The impression of a split in the scholarship is reinforced if we look at the questions of what the primary priorities advanced by the regulatory innovation are meant to be; why the scholar considers the regulatory innovation they are advocating or examining to be “good” relative to what came before; and who, according to the description in the article, decides whether that “good” is being achieved and on what basis. The full account is too complex to depict here – more information is contained in Appendix 3 – but in brief, the following emerges: first (reflecting the dominance of the environmental law scholarship in the set), about one third of the time, the primary good being advanced by the new regulatory technology is environmental protection or natural resources conservation. National or collective economic benefit is the next most popular “good”, cited in one quarter of the articles, and each of “equality, greater human flourishing, public health” and “enhanced democracy / citizen engagement / community participation / voice” are identified in a further one eighth or so of the articles. This suggests that public values, not private gain, continue to be the overwhelming goals of regulation. This should not be surprising, but it does put to rest overbroad arguments that regulation scholarship over the last three decades has been directly or primarily concerned with private gain, not public wellbeing.

Strong claims that the regulation scholarship was neoliberal in its assessment methods – meaning that value was defined primarily in terms of economic performance – also seem overstated. As noted above, in terms of why the regulatory innovation is seen as “good” relative to what came before, just under a fifth of the articles claimed that the old way was *inefficient* and the new way less costly. By contrast, over a third claimed that the old way was *ineffective* and the new way more likely to produce outcomes congruent with regulatory goals. Another fifth of the articles were concerned either with fairness or process, on the basis that the old way was unfair, undemocratic, unrepresentative, or

insufficiently consultative or collaborative. As well, four fifths of articles still identified existing state-based regulators as the standard-setters who had the authority to determine whether the good in question was being achieved by the innovation. Articles that would place that responsibility with the private sector were a distant second, with just over one tenth of the articles.

It is in the “evaluation method” – that is, the method regulators were meant to use to determine whether the regulatory “good” they sought was being achieved – that the data become most mixed. When it comes to the evaluation method by which the standard-setter (overwhelmingly a state regulator) was to determine whether the good in question was actually being achieved, almost one third of articles would require the standard-setter to check against static, bright-line or rule-based requirements. On the other hand, over a quarter would use the efficient market as the evaluation method, on the assumption that the best ideas will rise to the top through competition. Next in line was the use of more context-specific and/or flexible metrics like formal outcome analysis or performance-based analysis, at just under a quarter of the articles. Dialogue, deliberation, consultation and/or consensus were the evaluation methods in slightly less than one eighth of the articles, and self-monitoring and inter-firm comparative analysis in another one sixteenth of them. What this may suggest is greater collective confidence about ends – the good they were seeking – and the importance of state standard-setting; combined perhaps with less conviction about means, and a greater willingness to accept the market as a reasonable mechanism for achieving those ends.

Taken together, what emerges from this analysis is an image of a diverse scholarly community that has taken on board, to a significant extent, notions of incentives and performance assessment – this is in keeping with what we might expect from our earlier description of the rise of the regulatory state, and economics. However, this work cannot be described on a comprehensive basis as prioritizing market forces and market evaluative methods above other forces or methods. In other words, while the scholarship is divided, regulation scholarship across the last three decades has not embraced unalloyed market fundamentalism. The flexible regulation scholarship also contains rich veins of public-minded, fairness-oriented, and deliberative methods and priorities.

### *Does a rising tide lift all boats?*

Also notable is the distributional effect that the articles in question expected to see from the innovations they were discussing. A central correlative to neoliberalism has been that it privileges a particular, economic definition of worth pursuant to which there will be clear winners and losers in a zero-sum game. This turns out not to be the imaginary that these articles inhabit, or seek to advance.

Slightly more than half the articles in the set anticipated that there would be winners and losers, and that the innovation in question would provide a competitive advantage for one group over another. Interestingly, however, almost three quarters of articles asserting that view were writing about finance and financial regulation. This is notable because the finance articles are exceptional in sometimes sounding the alarm about the private innovation in question, rather than celebrating a regulatory innovation. Several articles

presciently identified the risks associated with the private sector innovation, and to some degree anticipated problems that gave rise to the financial crisis.<sup>22</sup> Among these articles,

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<sup>22</sup> I hesitate to make any quantitative claims about this scholarship given the difficulties in extricating private sector from public sector innovations in the literature. However, it is noteworthy that several articles in the database were: (a) written before the financial crisis, i.e., published in or before 2008, in which (b) privately-sector innovations, (c) in the financial sector were (d) thought to create winners and losers and (e) in which the “winners” were the financial innovators themselves, sometimes at considerable cost to others, (f) thereby raising concerns about the consequences for regulation or the adequacy of the existing regulatory regime. We do not see a similarly skepticism about innovation in the other subject areas, environmental and administrative law (which tend to be cited more within the database). The articles meeting the above criteria are Willa Gibson, ‘Are swap agreements securities or futures?: The inadequacies of applying the traditional regulatory approach to OTC derivatives transactions’ (1999) 24 J Corp L 379-416 and Frank Partnoy, ‘The Siskel and Ebert of financial markets?: Two thumbs down for the credit rating agencies’ (1999) 77 Wash U L Q 619-714 (with 9 cites each in the database); and with seven cites each: Henry T. C. Hu, ‘Swaps, the modern process of financial innovation and the vulnerability of a regulatory paradigm’ (1989) 138 U Pa L Rev 333-435; Kimberly D. Krawiec, ‘Accounting for greed: unraveling the rogue trader mystery’ (2000) 79 Oregon L Rev 301-38; Kathleen C. Engel & Patricia A. McCoy, ‘A tale of three markets: the law and economics of predatory lending’ (2002) 80 Texas L Rev 1255-381; and Arthur E Wilmarth, Jr, ‘The transformation of the U.S. financial services industry, 1975-2000: competition, consolidation, and increased risks’ (2002) U Ill L Rev 215-476. With six cites: Jerry W. Markham, “‘Confederate bonds,’ ‘General Custer,’ and the regulation of derivative financial instruments’ (1994) 25 Seton Hall L Rev 1-73. The article in the dataset that was perhaps the most skeptical of innovation and the most emphatic about the need for continued forceful, fairly traditional regulation was also on the topic of financial regulation: it was Robert A. Prentice, ‘The inevitability of a strong SEC’ (2006) 91 Cornell L Rev 775-839 (12 cites).

In addition, three pre-crisis articles focused on the need for regulatory reforms in response to the concerns arising from private sector financial innovation, without focusing to the same degree on the private innovation itself. They are William W. Bratton, ‘Does corporate law protect the interests of shareholders and other stakeholders? Enron and the dark side of shareholder value’ (2002) 76 Tulane L Rev 1275-1361 (24 cites); Thomas Lee Hazen, ‘Disparate regulatory schemes for parallel activities: securities regulation, derivatives regulation, gambling, and insurance’ (2005) 24 Ann Rev Banking & Fin L 375-441 (9 cites); and Kenneth A. Bamberger, ‘Regulation as delegation: private firms, decisionmaking, and accountability in the administrative state’ (2006) 56 Duke L J 377-468 (9 cites). On the other hand, one early article recommended a regulatory change, integrating the SEC and the CFTC, but for the purpose of further spurring financial innovation: Thomas A. Russo & Marlisa Vinciguerra, ‘Financial innovation and uncertain regulation: selected issues regarding new product development’ (1991) 69 Texas L Rev 1431-538 (10 cites).

At the same time, it is also noteworthy that many of the financial articles in the database discussed the importance of increasing regulatory coordination across borders, including several articles that emphasized the value of competition between regulators. This latter emphasis was a noticeable contrast relative to some other fields (e.g., environmental regulation), where risks associated with regulatory arbitrage seem to have been more front-of-mind. Discussing cross-border regulation are: Ethiopis Tafara & Robert J. Peterson, ‘A blueprint for cross-border access to U.S. investors: a new international framework’ (2007) 48 Harv Intl L J 31-68 (23 cites); Edward F. Greene, ‘Beyond borders: time to tear down the barriers to global investing’ (2007) 48 Harv Intl L J 85-97 (response to article by Ethiopis Tafara and Robert J. Peterson above) (10



the idea that there would be winners and losers associated with an innovation should not be interpreted to mean that the author thought that was either good, or inevitable. In many cases, the opposite was true.

Just as interestingly, however, almost half of the articles in the total set argued that there would in fact be no losers, and that the rising tide produced by the innovation would lift all boats. Almost three quarters of these fell into the administrative law category.<sup>23</sup> We may be able to interpret the “there will be no losers” analysis in a few different ways, but one thing that is clear is that many of these articles were theoretical in nature, and were more directed toward envisioning new possibilities for the regulatory state than concrete responses to particular regulatory challenges. (Certainly at least in the financial regulation context, the claim that everyone will benefit as a result of a new arrangement seems harder to sustain now.<sup>24</sup> We come back in the next chapter to observe how politically attractive simplified everyone-wins accounts sometimes turned out to be). Thus, both sides of the distributional analysis – those who argued that there would be winners and losers, and those who argued that everyone would benefit – need to be qualified to some extent. Neither perspective can be automatically associated with a stronger commitment to either neoliberal or egalitarian objectives.

### Financial regulation scholarship as outlier

The financial regulation scholarship’s significant skepticism about who will benefit from new innovations is significant, and makes that literature qualitatively different from what we see in the environmental and especially the administrative law realms. The financial

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cites); and Eric J. Pan, ‘A European solution to the regulation of cross-border markets’ (2007) 2 Brooklyn J Corp, Fin & Comm L 133-66 (7 cites). On the value of regulatory competition, including transnationally, are: Marcel Kahan & Ehud Kamar, ‘The myth of state competition in corporate law’ (2002) 55 Stan L Rev 679-749 (13 cites); Christopher Brummer, ‘Stock exchanges and the new markets for securities laws’ (2008) 75 Chicago L Rev 1435-91 (11 cites); and Roberta Romano, ‘The need for competition in international securities regulation’ (2001) 2 Theor Inq L 387-562 (7 cites).

<sup>23</sup> These articles are more heavily cited within the database than the financial regulation articles discussed immediately above. Of the articles in the administrative law category which argue that on balance the innovation in question (always a regulatory innovation in these articles) has the potential to lift all boats, those with more than fifteen cites within the database are Jody Freeman, ‘Collaborative governance in the administrative state’ (1997) 45 UCLA L Rev 1-98; Jody Freeman, ‘The Private Role in Public Governance’ (2000) 75 NYU L Rev 543-675; Sunstein, ‘Cognition and cost-benefit analysis’, note 19 above; Richard B. Stewart, Administrative law in the twenty-first century’ (2003) 78 NYU L Rev 437-60; Daniel C. Esty, ‘Good governance at the supranational scale globalizing administrative law’ (2006) 115 Yale LJ 1490-1562; and Bagley & Revesz, ‘Centralized oversight’, note 19 above. Other administrative law scholars expressed more concern about making flexible regulation work for all stakeholders – see, e.g., Mark Seidenfeld, ‘Empowering stakeholders limits on collaboration as the basis for flexible regulation’ (2000) 41 Wm & Mary L Rev 411-501.

<sup>24</sup> To be clear, the article of mine in the dataset, on financial regulation and published in 2008, falls in this category: Cristie L. Ford, ‘New governance, compliance, and principles-based securities regulation’ (2008) 45 Am Bus LJ 1-60 (29 cites).

regulation articles were more heavily skewed towards recognizing winners and losers, and toward identifying this as problematic. The financial regulation scholarship is also qualitatively different in terms of the primary priorities the regulatory innovation is seeking to advance; why the innovation is “good” compared to what came before; and the evaluation methods used to determine whether the “good” in question was actually being achieved. Given this book’s concern with financial innovation in particular, these are salient differences.

First, in terms of the nature of the innovation for which the scholarship is advocating, financial regulation articles are much more likely to advocate for “new mandatory standards or top-down strategy – e.g., ex ante licensing, bright-line rules or certification requirements”. Almost half of the 24 articles recommending new mandatory standards or a new top-down strategy are concerned with securities, banking, or corporate law and corporate governance. This is disproportionate. Finance articles are also relatively less likely to advocate for “more context specific and/or flexible metrics”. In terms of the evaluation method for determining whether the regulatory “good” in question is being achieved, as well, almost half the finance-related articles would check against static, bright-line, or rule-based requirements. Across the entire set, only about one third would do so. At the same time, in what at first looks like a paradox and is discussed further below, the finance articles are also more likely than the articles generally to identify the efficient market as the method for determining whether the regulatory “good” in question is being achieved: more than one third of the finance articles make this recommendation, as opposed to just over a quarter for the database as a whole.

Second, the financial regulation articles differ somewhat in terms of the primary priorities that the recommended innovation is trying to achieve, and its arguments for why that regulatory innovation is better than what came before it. In terms of the good that the proposed innovation is seeking to advance, financial regulation articles tend to be slightly more concerned than average about congruence and regulatory effectiveness, and slightly more concerned about transparency in regulation, but substantially less concerned about improving process by being more collaborative or doing a better job of including stakeholders. In terms of its primary priorities, a disproportionate number of financial regulation articles – almost three fifths, as opposed to one quarter across the database as a whole – identify “national or collective economic benefit” as their primary priority. This makes sense, though the proportion is striking. Put another way, more than half of the 48 articles that identified national or collective economic benefit as their primary priority come from the financial regulation topic area. (Environmental protection and/or natural resources conservation is the dominant priority in the set as a whole, but for obvious reasons is not the main priority within the financial regulation scholarship.) At the same time, fully half of the 16 total articles that identified *private* economic benefit or competitiveness as their primary priority are also from the financial regulation topic area. This priority is identified in only about a twelfth of the articles across the set, but more than a fifth of the articles in financial regulation. Equality and greater human flourishing, and enhanced democracy and citizen engagement, scarcely feature in the financial regulation literature.

While we might anticipate a neat overlap, there is a less than perfect correspondence between the ten financial regulation articles that identify private economic benefit or competitiveness as the innovation's primary priority, and the twenty financial regulation articles that identify the efficient market as the basis of determining whether the good is being achieved. Because the arguments across the articles are nuanced, it is not really possible to identify distinct and non-overlapping schools of thought within the finance articles, except to identify that a spectrum runs from articles that emphasize the value of private benefit and efficient markets; through those that link public benefit and efficient markets (though often in complex or critical ways, like some of the prescient articles described above that identified the risks associated with the private sector innovation and anticipated some of the problems that gave rise to the financial crisis); and onto articles that emphasize public benefit and the importance of static, bright-line rules. The fact that so few financial regulation articles draw on the deliberative or enforced self-regulatory instincts that animate flexible regulation more broadly is also noteworthy. It signals perhaps a lost thread in the scholarly tradition, which needs to be picked up once again.

Finally, another striking difference is the degree to which financial regulation scholarship seemed to be concerned with particular, specific innovations rather than with generalized phenomena such as climate change or globalization. Among the financial regulation articles that were coded as responding to manufactured risk, the breakdown is different relative to the dataset as a whole. Two thirds of the environmental regulation articles, and almost all the administrative law articles in the dataset are really concerned with "background change" – that is, general knock-on effects of human innovation, like pollution or climate change or complexity. The distribution within the financial regulation articles is quite different: while fully half are also responding to background change, more than a third are responding to an identified, specific change in markets or the economy, and a further one eighth are responding to a specific new product or technology. The prescient, critical articles identified above fall into the latter category. In other words, financial regulation articles seem to be more likely to be concerned with the particular underlying innovations that produce effects like globalization, with their attendant regulatory challenges, and relatively less likely to be responding to those generalized effects themselves.

### **What relationship between private innovation and regulatory innovation?**

For present purposes, this final point may be one of the most illuminating. The clear majority of the regulatory innovations discussed in the articles were catalyzed by new human-created risks – Giddens's manufactured risk – which produced regulatory problems to which regulatory innovation in turn was seen to be the appropriate response. At first blush this suggests that this literature was a direct response to private sector innovation, presumably underpinned by a robust and well-informed understanding of how innovation and regulation intersect.

<b>Catalyst(s) for the innovation</b>	<b>Frequency</b>
1. risk	0
1a. longstanding natural risk	2 (1%)
1b. new manufactured / human-created risk	129 (65%)
2. opportunity	2 (1%)
2a. for private benefit	13(7%)
2b. for public benefit	31 (16%)
3. necessity	21 (11%)
TOTAL (Missing = 0)	198

Table 4.3 The frequency of catalysts for innovation in the literature

However, the prominence of manufactured risk in the coding is actually deceiving. As Table 4.4 below shows, two thirds of the articles in the database coded as responding to manufactured or human-created risk turned out to be responding to background change or the effects of innovation, such as climate change or globalization in general terms, rather than to any specific new technology. While these background changes are themselves a product of technological innovation(s), the actual technological innovations themselves were not the main concern in these accounts. Their concern was *effects*: climate change, pollution, and the like.<sup>25</sup> Only about a third of the articles in the sample, a

<sup>25</sup> The articles are too many to list here, but articles coded as responding to new manufactured / human-created risk, which have more than fifteen cites within the database, are: Cass R. Sunstein, ‘Administrative substance’ (1991) Duke LJ 607-46; Daniel C. Esty, ‘Revitalizing environmental federalism’ (1996) 95 Mich L Rev 570-653; David Driesen, ‘Is emissions trading an economic incentive program?: replacing the command and control/economic incentive dichotomy’ (1998) 55 Wash & Lee L Rev 289-350; Paul L. Joskow & Richard Schmalensee, ‘The political economy of market based environmental policy: the US acid rain program’ (1998) 41 J Law Econ 37-84; Rena I. Steinzor, ‘Reinventing environmental regulation: the dangerous journey from command to self control’ (1998) 22 Harv Envtl L Rev 103-202; Daniel Farber, ‘Taking slippage seriously: noncompliance and creative compliance in environmental law’ (1999) 23 Harv Envtl L Rev 297-326; Daniel Farber, ‘Triangulating the future of reinvention: three emerging models of environmental protection’ (2000) 2000 U Ill L Rev 61-82; Seidenfeld, ‘Empowering stakeholders’, note 24 above; Wagner, ‘Technology based standards’, note 7 above; Richard B.

disproportionate number of which come from the financial regulation field, dealt with risk generated from specific new technologies or products, or specific changes in the markets or economy, or in law and policy.

Type of manufactured/human-created risk	Frequency
1. New product/technology	10 (8%)
2. Specific change in markets/economy	13 (10%)
3. Specific change in law/policy	21 (16%)
4. Background change	85 (66%)
TOTAL (Missing = 0)	129

Table 4.4: Kinds of manufactured / human-created risks described in the literature

Moreover, when charted across time, we can see that the one sixth of articles in which regulatory innovation was being advocated in order to respond to specific changes in law and policy started to grow beginning around 1997, corresponding with the growth of environmental articles. Reviewing the articles shows that much of this growth could be attributed directly to new environmental policies advanced by the Clinton Administration, like Project XL, which was launched in 1995. Since these articles were really about a *regulatory* change in response to a *policy* change, they still operate at some distance from any underlying private sector innovations that might have been taking place.<sup>26</sup>

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Stewart, 'A new generation of environmental regulation' (2001-2002) 29 Cap U L Rev 21-182; William W. Buzbee, 'Recognizing the regulatory commons: a theory of regulatory gaps' (2003) 89 Iowa L Rev 1-64; Bradley C. Karkkainen, 'Adaptive ecosystem management and regulatory penalty defaults' (2003) 87 Minn L Rev 943-98; and Daniel C. Esty, 'Good governance at the supranational scale globalizing administrative law' (2006) 115 Yale LJ 1490-562. Two additional articles in this category, which go to responding to human-created risk but in quite a different way, are Elena Kagan, 'Presidential administration' (2001) 114 Harv L Rev 2245-385; and Oren Bar-Gill & Elizabeth Warren, 'Making credit safer' (2008) 157 U Pa L Rev 1-101.

<sup>26</sup> Of the 21 articles in this category, four are specifically concerned with Project XL. They are Dennis D. Hirsch, 'Bill and Al's XL-ent adventure: an analysis of the EPA's legal authority to implement the Clinton Administration's Project XL' (1998) 129 U Ill L Rev 129-72; Bradford C. Mank, 'The Environmental Protection Agency's 's Project XL and other regulatory reform initiatives: the need for legislative authorization' (1998) 25 Ecology LQ 1-88; Dennis D. Hirsch, 'Project XL and the special case: the EPA's untold success story' (2001) 26 Colum J Envtl L 219-58; Shi-Ling Hsu, 'A game-theoretic approach to regulatory negotiation and a framework for empirical analysis' (2002) 26 Harv Envtl L Rev 33-108. Six other articles, all but one of which

This leaves really just one fifth of the articles, which potentially directly address how regulation was or should be responding to manufactured risk produced by specific private sector innovations. Within these we see a second spurt of articles, responding to new products and technology, in the mid-2000s. On inspection, these articles tend to correspond to the growth of information and telecommunication technologies during this time period (e.g. WiFi, smartphones, etc.), or the greater information available to government as a result of the internet and advances in computing.<sup>27</sup> We then see the

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were published between 1999 and 2002, deal with other aspects of EPA regulation including toxic risk, the Clean Air Act and cap and trade initiatives (all focused on the policy initiative itself, rather than the underlying technology of creating tradable emissions permits). They are Howard Latin, 'Good science, bad regulation, and toxic risk assessment' (1988) 5 *Yale J Reg* 89-148; Cass R. Sunstein, 'Is the Clean Air Act unconstitutional?' (1999) 98 *Mich L Rev* 303-94; Rena I. Steinzor, 'Devolution and the Public Health' (2000) 24 *Harv Envtl L Rev* 351-465; Bradley Karkkainen, 'Information as environmental regulation: TRI and performance benchmarking, precursor to a new paradigm?' (2001) 89 *Geo LJ* 257-370; Byron Swift, 'How environmental laws work: an analysis of the utility sector's response to regulation of nitrogen oxides and sulfur dioxide under the Clean Air Act' (2001) 14 *Tul Envtl LJ* 309-426; and Cass R. Sunstein, 'The arithmetic of arsenic' (2002) 90 *Geo LJ* 2255-310. Two other articles are focused on regulatory regimes associated with climate change: they are David M. Driesen, 'Free lunch or cheap fix?: The emissions trading idea and the climate change convention' (1998) 26 *BC Envtl Aff L Rev* 1-88; and David E. Adelman & Kirsten H. Engel, 'Reorienting state climate change policies to induce technological change' (2008) 50 *Ariz L Rev* 835-78.

Of the remaining articles, one is about public housing (Lisa T. Alexander, 'Stakeholder participation in new governance: lessons from Chicago's public housing reform experiment' (2009) 16 *Geo J on Poverty L & Pol'y* 117-86); one is about financial regulation (Paredes, 'Decision to regulate', note 18 above); and seven are primarily focused on administrative law or legal theory. They are: Thomas O. McGarity, 'Some thoughts on 'deossifying' the rulemaking process' (1992) 41 *Duke LJ* 1385-462; Robert L. Glicksman & Stephen B. Chapman, 'Regulatory reform and (breach of) the contract with America: improving environmental policy or destroying environmental protection?' (1996) 5 *Kan JL & Pub Pol'y* 9-46; David L. Markell, 'The role of deterrence-based enforcement in a 'reinvented' state/federal relationship: the divide between theory and reality' (2000) 24 *Harv Envtl L Rev* 1-114; Jody Freeman, 'The contracting state' (2000) 28 *Fla St UL Rev* 155-214; J.B. Ruhl, 'Regulation by adaptive management - is it possible?' (2005) 7 *Minnesota J L, Sci & Tech* 21-58; Buzbee, 'Asymmetrical regulation', note 13 above; and David M. Trubek & Louise G. Trubek, 'New governance & legal regulation: complementarity, rivalry, and transformation (Narrowing the gap? law and new approaches to governance in the European Union)' (2007) 13 *Colum J Euro L* 539-64.

<sup>27</sup> The six articles in this category published between 2003 and 2005 are: Rob Frieden, 'Adjusting the horizontal and vertical in telecommunications regulation: a comparison of the traditional and a new layered approach' (2003) 55 *Fed Comm LJ* 207-50; Daniel C. Esty, 'Environmental protection in the information age' (2004) 79 *NYU L Rev* 115-211; E. Goodman, 'Spectrum rights in the telecoms to come' (2004) 41 *San Diego L Rev* 269-404; Beth Simone Noveck, 'The electronic revolution in rulemaking' (2004) 53 *Emory LJ* 433-518; R. Alex DuFour, 'Voice over Internet protocol: ending uncertainty and promoting innovation through a regulatory framework' (2005) 13 *Comm Law Conspectus* 471-508; and Philip J. Weiser & Dale N. Hatfield, 'Policing the spectrum commons' (2005) 74 *Fordham L Rev* 663-94. Of the four other articles in the category, three concern new financial products or technology and date from well before or well after this period. They are: Hu, 'Swaps', note 22 above; Gibson, 'Securities or futures', note 22 above; and Erik F. Gerding, 'Code, crash, and open source: the outsourcing of financial

beginnings of the rise in number of articles responding to new changes to the market and economy, following the financial crisis in 2008.<sup>28</sup>

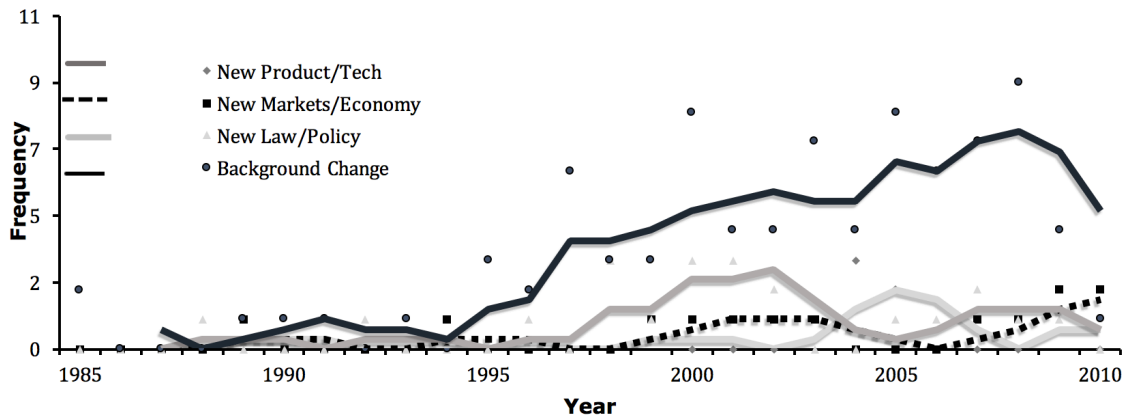


Figure 4.3 The frequency of articles responding to the different categories of human-created or manufactured risk. The lines depict the three-year moving average.

Taken together this suggests that, although human-created or what Giddens calls “manufactured” risk was the stated catalyst for regulatory innovation in almost two thirds of these articles, almost four fifths of *those* articles were primarily concerned either with responding to the effects of human-created innovation, with which the article did not directly concern itself; or with responding to government policy change. In other words, notwithstanding its considerable other merits (and with the exception of some of the

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regulation to risk models and the global financial crisis’ (2009) 84 Wash L Rev 127-291. The final article is about nanotechnology: Jordan Paradise et al., ‘Evaluating oversight of human drugs and medical devices: a case study of the FDA and Implications for Nanobiotechnology’ (2009) 37 J L Med & Ethics 598-624.

<sup>28</sup> The six articles in this category published in 2007 or later Pan, ‘A European solution’, note 22 above; Steven Schwarcz, ‘Systemic risk’ (2008) 97 Geo LJ 197-250; Jill E. Fisch, ‘Top cop or regulatory flop? The SEC at 75’ (2009) 95 Va L Rev 785-823; William K. Sjostrom Jr., ‘The AIG bailout’ (2009) 66 Wash & Lee L Rev 943-91; Lucian A. Bebchuk & Holger Spamann, ‘Regulating bankers’ pay’ (2010) 98 Geo LJ 247-88; and Charles Whitehead, ‘Reframing financial regulation’ (2010) 90 BU L Rev 1-50. Of the others, four deal with the creation and operation of emissions trading permits. They are Robert W. Hahn & Gordon L. Hester, ‘Where did all the markets go? An analysis of EPA’s emissions trading program’ (1989) 6 Yale J on Reg 109-53; Richard Toshiyuki Drury et al., ‘Pollution trading and environmental injustice: Los Angeles’ failed experiment in air quality policy’ (1999) 9 Duke Envtl L & Pol’y F 231-90; James Salzman & J.B. Ruhl, ‘Currencies and the commodification of environmental law’ (2000) 53 Stan L Rev 607-94; and Jonathan Remy Nash & Richard L. Revesz, ‘Markets and geography: designing marketable permit schemes to control local and regional pollutants’ (2001) 28 Ecology LQ 569-663. The other three are earlier articles dealing with other financial innovations including Enron and Sarbanes-Oxley: they are Jerry W. Markham, ‘Confederate bonds’, note 22 above; Jeffrey N. Gordon, ‘What Enron means for the Management and control of the modern business corporation: some initial reflections’ (2002) 69 U Chicago L Rev 1233-50; and Lawrence A. Cunningham, ‘The Sarbanes-Oxley yawn: heavy rhetoric, light reform (and it just might work)’ (2003) 35 Conn L Rev 915-88.

financial regulation articles discussed above), the regulation-and-innovation scholarship captured here was *not* focused on thinking about how one might tailor a regulatory response to a precisely-defined and well-understood risk, produced by a precisely-defined and well-understood private sector innovation.

Interestingly, the most-cited articles in the database were also qualitatively different from the database as a whole, in terms of what catalyzed the regulatory innovation in question. Specifically, of the fourteen most-cited articles, only five described themselves as responding to human-created manufactured risk.<sup>29</sup> Seven others described the regulatory innovation in optimistic terms, as responding to opportunity for either public<sup>30</sup> or private<sup>31</sup> benefit. The last two – first and third on the list of most-cited articles in this database – described the regulatory innovation in question as responding to necessity.<sup>32</sup> Care should be taken not to give too much emphasis to these distinctions, since the often-overlapping distinctions between risk and benefit, and public and private in these articles sometimes turn on fine semantic distinctions. All the same it may suggest that the most influential articles to consider the relationship between innovation and regulation during this time period framed the discussion in relatively urgent or optimistic terms, potentially lending forward momentum to the conversation while also obscuring the link between particular, concretely defined regulatory problems, borne of innovation-related risk, and their proposed solutions.

### **Flexible regulation and innovation**

In a sense, flexible regulation scholarship considered here, and the different approaches within it, reflect our broader social relationship to the idea of innovation as a whole. We are happy to celebrate and foster it where we can. We want to believe that innovation has the capacity to address some of our most intractable problems. Pro-social innovations, like better environmental technology, get a lot of attention. Similarly, in the administrative law space, the prospect of transcending entrenched ideological divides and

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<sup>29</sup> The most-cited articles are set out in Appendix 1. These five are Steinzor, ‘Reinventing environmental regulation’, note 25 above; Karkkainen, ‘Information as environmental regulation’, note 20 above; Stewart, ‘New generation of environmental regulation’, note 25 above; Buzbee, ‘Asymmetrical regulation’, note 13 above; and Schwarcz, ‘Systemic Risk’, note 28 above.

<sup>30</sup> Cary Coglianese, ‘Assessing consensus: the promise and performance of negotiated rulemaking’ (1997) 46 *Duke LJ* 1255-349; Freeman, ‘Collaborative governance’, note 23 above; Michael C. Dorf & Charles F. Sabel, ‘A constitution of democratic experimentalism’ (1998) 98 *Colum L Rev* 298-473; Sturm, ‘Second generation employment discrimination’, note 7 above; and Kristen Engel, ‘Harnessing the benefits of dynamic federalism in environmental law’ (2006) 56 *Emory LJ* 159-90.

<sup>31</sup> Freeman, ‘Private role of public governance’, note 23 above; and Cary Coglianese & David Lazer, ‘Management-based regulation: prescribing private management to achieve public goals’ (2003) 37 *Law & Soc’y Rev* 691-730. Each of these articles also claims public benefit in its prescriptions; this records their primary emphasis only.

<sup>32</sup> Orly Lobel, ‘The renew deal: the fall of regulation and the rise of governance in contemporary legal thought’ (2004) 89 *Minn L Rev* 342-470; and Charles F. Sabel & William H. Simon, ‘Destabilization rights: how public law litigation succeeds’ (2004) 117 *Harv L Rev* 1015-101.



generating a more inclusive, engaged, responsive, and well-tailored public sphere through better regulatory technique is deeply appealing. It is primarily only when it comes to identifying and responding to specific, antisocial private innovations by powerful actors like financial institutions that we are willing to sound the alarm – as if those institutions have betrayed something essential about the innovative project, rather than just playing it out in a different context. If this literature is any guide (and I think it is), we seem unwilling to look carefully at innovation writ large as a potential challenge, perhaps because we are unwilling to contemplate the kinds of tradeoffs we sense might be involved in doing so.

Considering innovation itself as a regulatory challenge, one that calls for an informed and considered regulatory response, does not require that we reject innovation wholesale. The fact that something is a challenge does not mean it must be eliminated. On the contrary, flexible regulation scholarship points the way to the kind of flexible, pragmatic, problem-solving regulatory structure that is capable of engaging with private sector innovation in a much more targeted, context-sensitive way. The next step for this scholarship, though, is to return to the Turner Review's allegation and to flip it on its head: to start from the premise that innovation is a potential regulatory *challenge*, almost by definition. The next several chapters of this book begin to investigate how innovation, including financial innovation, actually develops and evolves. Bright-line rules will have their place in responding to the challenge that innovation presents, but we will need access to all the tools at our disposal. Abandoning the tools that flexible regulation offers, on the basis of some mistaken sense of their equivalence with neoliberalism or market fundamentalism or some other pre-crisis wrong turn, would leave us bereft of some of the tools that will be most essential to our success. Abandoning the regulatory project under the banner of populism, and thereby rejecting the emancipatory, egalitarian instincts that underpin this work, would be even worse.

This scholarship emerged from a particular set of priorities, and it is not exactly fair to measure it from a different set of priorities. Nevertheless, from the perspective of someone interested in the private sector financial innovations taking place simultaneously, the scholarship demonstrates insufficient attention to what private actors were doing with the space accorded them within the regulatory scaffolding, including to its distributive effects. Some of this is a function of history: flexible regulation emerged first and primarily in environmental law, and financial regulation followed. In environmental regulation, many private sector pollution control innovations were actually generally positive. Articles on more controversial kinds of private sector environmental innovations, like fracking or deepwater oil drilling, are scarcely present in this literature. In the administrative law articles, as well, much of the literature operates primarily at the theoretical or general plane. Its prescriptions can be more exhortative than descriptive. The financial regulation articles do relatively better on this measure. Their main limitation, based on this sample, seems to be in the absence of thinking about how to build in deliberative or public-representative priorities into the regulatory architecture in the way that we see elsewhere in the flexible regulation work. In other respects, though, the financial regulation articles as a whole still bear the imprints of the regulatory and historical flexible regulation conversation of which they are a part.

