13 Risk-based Regulation

The essence of risk-based regulation, as commonly understood, is the prioritizing of regulatory actions in accordance with an assessment of the risks that parties will present to the regulatory body's achieving its objectives.[1] This is an approach that has exploded in popularity in a host of sectors across the world and which covers both state and non-state bodies.[2] In the UK, the risk-based approach was institutionally endorsed most emphatically in 2005 when the Hampton Review recommended that all UK regulators should operate a risk-based system.[3] It is, nevertheless, a regulatory strategy that poses a number of practical and conceptual challenges for those who would apply it, and these will be the focus of attention in this chapter.

The Elements of Risk-based Regulation

Risk-based frameworks look principally to control relevant risks, not to secure compliance with sets of rules. They establish priorities in a manner that makes selective decisions clear and they aim to provide a logical structure within which decisions can be understood and explained. Generally, such frameworks have a number of central elements.[4] In the first instance, they demand that the regulator should clearly identify its objectives and the risks that the regulated organizations may present to the achieving of those

[1] See generally: J. Black, 'The Emergence of Risk-based Regulation and the New Public Risk Management in the United Kingdom' (2005) *Public Law* 512; *Risk-based Regulation: Choices, Practices and Lessons Being Learned* (Paris, 2008); 'The Role of Risk in Regulatory Processes' in R. Baldwin, M. Cave, and M. Lodge, *The Oxford Handbook of Regulation* (Oxford, 2010). We are grateful to Julia Black for allowing us to draw on her sole and co-authored works in composing some parts of this chapter and for her comments.

[2] See Black, *Risk-Based Regulation*, for a review of the development of risk-based regulation and its varieties.

[3] P. Hampton, *Reduction in Administrative Burdens: Effective Inspection and Enforcement* (London, 2005). Since 1999–2000 the National Audit Office has urged regulatory bodies to develop 'risk-based' approaches to regulation and inspection—see NAO, *The Gaming Board: Better Regulation* (1999–2000 HC 537). See also Sir Peter Gershon CBE, *Releasing Resources to the Front Line: An Independent Review of Public Sector Efficiency* (London, July 2004), para. 2.22; Gus O'Donnell, *Financing Britain's Future: Review of the Revenue Departments*, Cmnd 6163 (London, 2004), para. 3.80; all available from www.hm-treasury.gov.uk/.

[4] See J. Black and R. Baldwin, 'Really Responsive Risk-Based Regulation' (2010) 32 *Law and Policy* 181–213.

objectives. Second, the regulator will develop a system for assessing such risks and scoring these. Such mechanisms conventionally treat the quantum of a risk as the product of the gravity of a potential harm or impact and the probability of its occurrence. An important distinction is often drawn here between 'inherent' and 'management and control' risks. The former concept looks to the intrinsic dangerousness of the site or activity. This would take on board such matters as the substances and operations involved and the proximity to a vulnerable resource. (Are the chemicals very dangerous and is the factory near a watercourse?) *Management and control risks* relate to the propensity of an organization's internal controls to mitigate or exacerbate the risk by affecting the probability of a harm's occurrence. Both of these aspects of risk will be considered, together with other factors, in the typical risk-scoring system.

There is, however, considerable variation across regimes and jurisdictions in the approaches that are taken to risk scoring. Some systems are highly quantitative and some are heavily qualitative.[5] The risk scores of regulated concerns, nevertheless, will usually be arrived at by referring to the basket of evaluations that relate to issues of quantum and probability. (Where numerical scores are used, these will often operate as shorthand for more complex underlying judgements.) These scores may rank firms or activities according to broad categories—such as 'traffic light' regimes that divide into 'high', 'medium', or 'low' risks—or they may use more fine-grained divisions.[6] An important qualitative element is often the field inspector's estimation of a regulated firm's management and its capacity and commitment to control the given risk.

A further element in many risk-based regimes is a linkage between the scoring mechanism, or risk evaluation, and the allocation of resources. It is usual for the scoring system to guide the regulator in prioritizing regulatees for attention. High-risk firms will thus be generally accorded some priority for intervention. It is less usual for there to be a direct linkage between the risk score given to a firm and the nature of the intervention tool that is deployed with respect to that firm (whether, for instance, the regulator will use an educative, persuasive, or sanctioning tool to influence the firm). This may be changing, however, since regulators around the world are increasingly using risk-based frameworks to assist them in decisions on intervention method.[7]

Risk-based regulation was originally used as a way to justify regulatory efforts with reference to a rational calculus.[8] Regulation could thus be limited to the justifiable and could be supported on the basis of a systematic and transparent analysis. Experience, however, has revealed that risk-based frameworks are not

[5] See Black, *Risk-Based Regulation.*

[6] The UK Financial Services Authority has fifteen different categories, for example—see Black and Baldwin, 'Really Responsive Risk-based Regulation'.

[7] See Black, *Risk-based Regulation.*

[8] See Black, 'Emergence of Risk-based Regulation'.

neutral, technical instruments. Each aspect of a risk-based framework involves a complex set of choices and evaluations on such matters as the risks to be focused on and how such risks are to be defined. Risk-based regimes also demand that the regulator takes decisions on the risks that it will not prioritize. Its risk tolerance is thus exposed to public glare, and this can lead to difficult political challenges—not least when an accident or harm occurs at a site that the regulator had not prioritized. The result is that, in practice, a regulator's risk tolerance is often ultimately driven by political considerations and that using the risk-based framework becomes more of a political art than a technical application. The nature of that art becomes more clear as we now consider in more detail the main challenges to be faced by risk-based regulators.

The Challenges of Risk-based Regulation

IDENTIFYING AND EVALUATING RISKS

The first challenge for any risk-based regulator is, as noted, to identify the risks to its achieving its objectives. These are the risks that it will evaluate and seek to control. To this end, it will normally translate its statutory objectives into key risks and use the resultant breakdown to organize the evaluation of more particular risks. This process is, however, not mechanical, since it demands that judgements be made on a number of matters, most notably on how risks are to be defined and 'bundled'. A central question here is whether the 'risk' at issue is the danger presented by: a particular site (e.g. farm 'X'); a particular operation at that farm (e.g. sheep-dipping); or a given general activity (e.g. sheep-dipping by the 300,000 or so active farms in the UK). In most regulated areas it is difficult to find technically 'correct' answers to such questions, and regulators will have to make judgements—which will often be open to question. Indeed, a general concern on this front is that risk-based regulation tends to be operated in a manner that places too much emphasis on individual sites (or 'silos' of risk) and that, as a result, this approach is slow to come to terms with systemic and cumulating risks.[9] This was a point that many commentators thrust home with some force after the credit crisis took hold in 2008.[10]

[9] For a discussion of FSA strategies for dealing with systemic risks, see Black, 'Emergence of Risk-based Regulation', 535–6.

[10] On risk-based regulators' failures to address the systemic risks associated with the sale of complex securitized products before the credit crisis, see G. Tett, *Fools Gold* (New York, 2009); US Government Accountability Office, *Financial Crisis: Recent Crisis Reaffirms the Need to Overhaul the US Regulatory System*, GAO-09–1049T (Washington, DC, 2009); E. Gerding, 'The Subprime Crisis and

Another danger with risk-based regulation is that if regulators pay the closest attention to those firms that present the greatest risks, this inevitably means that some firms will 'fly under the radar' to a lesser or greater degree because they do not meet the risk threshold for such priority of attention. The potential problem then becomes that the 'forgotten' regulatees become slack managers of their own risks because they are not contacted by the regulator with any frequency or because they know or suspect that they are 'immune' from regulation because of the modesty of their risk scores. As a result, such firms may become higher risk-creators who are liable to escape regulatory attention unless the regulator operates review mechanisms that will pick up such changes.

One more area of contention relates to the assumption that it is efficient to prioritize for attention those sites or activities that present the greatest risks to the regulator's objectives. The difficulty here is that the costs of influencing regulatees may vary according, *inter alia* to the regulatees' dispositions, cultures, and capacities. The regulator may, as a result, have to spend far more resource to induce a given change of behaviour at one site than at another. It follows that, if it is the case that, for the same resource expenditure, much greater gains in, let us say, reducing polluting discharges, can be achieved at site X rather than site Y (which presents a larger pollution risk than site X) it may be efficient to prioritize site X for attention. Taking action at the lower risk site X will produce the greatest reduction in pollution but this is not a strategy of targeting the greatest risk creator. Whenever there is the possibility of such scenarios, and it is feasible to calculate these effects,[11] regulators will have to decide whether to take on board the 'amenability'[12] of the regulatee in the risk-scoring mechanism that drives their priorities. This, moreover, is liable to be no easy and uncontentious decision. If risk scores are raised when regulatees are amenable to regulatory direction, the effect is to reward those businesses who are low in amenability (the ill-disposed and recalcitrant businesses) by reducing their exposure to regulatory intervention. If firms with higher amenability are, in contrast, rewarded with lower risk scores, this involves an inefficiency since the regulatory resource will be directed away from the location where it would produce the greatest positive effect. There is liable to be no easy answer to this dilemma, and the

the Outsourcing of Financial Regulation to Financial Institution Risk Models: Code, Crash and Open Source' (2008), available at SSRN: http://ssrn.com/abstract=1273467.

[11] It is not always simple for a regulator to calculate with accuracy the amount of risk reduction that an intervention strategy will produce in a regulatee. Such estimations are unlikely to be possible where the risk is one that is low in frequency and idiosyncratic and where contacts with the regulatee are infrequent.

[12] Where 'amenability' is the regulatee's propensity to come into line with the regulator's directions at low cost—see Black and Baldwin, 'Really Responsive Risk-based Regulation'.

risk-based regime fails to operate mechanically to produce an unproblematic steer.[13]

A second major challenge for risk-based regulators is to take on board the extent to which managerial attitudes will affect the level of risk presented by a firm.[14] The quality and character of management and their risk controls will affect the probability of a harm's occurrence and, as noted, many risk-scoring systems will seek to incorporate evaluations of managers for this reason.[15] (Management and control assessments, for instance, have a significant impact in the risk-scoring systems of many financial regulators, since these can lower or raise the 'net risk' of the firm.) Whatever weighting is given to 'management and control' within a given regime, however, the general practice is to lower the risk score overall where the regulator has confidence in the management team's ability to control relevant risks. This is no simple task, however, since risk-based assessments attempt to evaluate the risks that will be presented by a firm in the future. Different types of risk-based systems are better equipped to do this than others. Mere references to past compliance records tend to lack responsiveness and dynamism and yet prospective judgements can present difficulties. Individual field officers' judgements about managers may have to be incorporated within a risk regime in a manner that ensures that similar approaches are adopted across evaluators and regulatory managers may find it hard to balance their needs to foster both discretion and consistency. The related danger is that the processes of overseeing discretionary decision-making can prove excessively costly in staff time and resources and that centrally administered controls, checks, and structuring procedures can render the agency slow to respond to changes in the regulatory challenges that they face.[16]

IMPLEMENTATION

A first challenge in seeking to give effect to a risk-based system is to be clear about the degree to which risk evaluations will be used as drivers of regulatory actions. The challenge arises because risk evaluations may prove far more helpful in relation to some regulatory tasks than others. Thus, risk scoring

[13] Some regulators do seek to take amenability characteristics on board in their risk scoring: the Portuguese environmental regulator, IGOAT, for example, includes, in its assessment of management and control an evaluation of the firms' interaction with the regulators and uses this as an indicator for the firm's amenability to intervention (Black, *Risk-based Regulation*).

[14] See Black and Baldwin, 'Really Responsive Risk-based Regulation'.

[15] The weight that is attached to such managerial assessments does vary: the England and Wales Environment Agency gives such assessments relatively little weight, but the Portuguese environmental regulator's scheme applies a multiplier of three to the 'management and control' score as it wants to incentivize firms to improve their risk-management systems and thus lower their risk scores—see Black, *Risk-based Regulation.*

[16] Ibid.

may provide a very ready basis for detecting high-risk sites, activities, and actors, but it may offer far less assistance in identifying the modes of intervention that will best reduce risks—whether the best way to reduce the risks posed by the firm is to use a 'zero-tolerance' command and control regime or whether an educative, disclosure, or other strategy would prove more effective. The *kind* of intervention required may, at best, be loosely linked to the level of risk that the firm presents.

The major determinant of the optimal style of intervention is liable to be revealed by an analysis of the likely responsiveness of the firm to different stimuli—and this may involve a departure from an overly rigid risk-based system and a drawing on other theories, such as 'compliance', 'deterrence', responsive regulation, problem-centred, and other approaches to fit the context.[17] Two firms with similarly high-risk scores may, for instance, vary in their informational positions and dispositions to comply with regulatory demands. One may respond well to an educative programme and the other may not. One may not need to be met with a punitive threat, the other may have to be. How best to deal with these two firms is not readily identified by reference to a risk assessment system. Even when a risk-scoring system evaluates a firm's risk management performance, this will not assist greatly in determining the best intervention style. The fact that a risk management team may operate with a certain level of competence does not, for instance, mean that it will respond to one kind of intervention tool rather than another.

A second implementation challenge is to put a risk-based system into effect within the organizational setting in which it is sited. As noted, risk assessment demands that regulatory officials make discretionary judgements when they assess such matters as managerial quality. A central organizational difficulty, as suggested above, is for the regulator to control these discretionary judgements and make them consistent but to avoid instituting processes that render the regime expensive and unresponsive. Cultural changes may also have to be made within regulatory bodies so that a focus on rules and compliance-seeking gives way to a concern with risks and their assessment: 'regulators have to lose the "tick the box" mentality and get used to assessing risk'.[18] If this cultural change is not pushed through the organization, the danger is that regulatory officials 'reverse engineer' the system by scoring risks in a manner that is dictated by their traditional methods of appraising firms.[19]

A further organizational challenge may stem from the broader institutional and political contexts that regulators occupy. These are often critical to the

[17] See Chapters 11 and 12 above.

[18] Black, 'Emergence of Risk-based Regulation', 539; C. Briault, *The Rationale for a Single National Financial Services Regulator*, FSA Occasional Paper No. 2 (London, 1999).

[19] Black, 'Emergence of Risk-based Regulation', 539; and FSA, *Practitioner Panel Annual Report 2003–4*, 7–8.

performance of a risk-based regime and certain regulators may experience special difficulties in dealing with these settings.[20] Thus, it could be argued that at least some of the failures of the UK's financial services regulatory regime in the period up to the credit crisis can be put down to key aspects of the institutional environment within which the regulators worked: notably the way that the UK government's 'light-touch' regulatory philosophy shaped regulatory interactions and understandings about the appropriateness of regulatory demands;[21] the degree to which domestic regulators placed faith in controls by other national regulators to control globally interconnected markets; and the extent to which domestic regulators considered themselves constrained by regulatory competition within the international institutional environment.[22]

Another organizational difficulty for risk-based regulators may arise when their powers are shared with other bodies.[23] Thus, the effectiveness of the UK's regulation in the lead up to the credit crisis was arguably weakened by the way in which regulatory powers were distributed between the Treasury, the Bank of England, and the Financial Services Authority. It may be especially difficult for regulators to adhere to the logics of risk-based systems when they are faced with divergence between the various networked regulators' aims, objectives, and institutional environments; variations in regulatory cultures; differences in capacities, skills, and resources; and varying capacities to modify their operations.[24]

Risk-based regulators may be especially vulnerable to their political contexts. All regulators need political support if they are to act robustly against

[20] Black and Baldwin, 'Really Responsive Risk-based Regulation'.

[21] In 2009, the chairman of the FSA and the Governor of the Bank of England both emphasized to the Treasury Select Committee that they would have faced considerable political and market hostility if they had sought to 'stop the party' and required banks to rein in their activities (Lord Turner's evidence in response to Q 2145 HC Treasury Select Committee 25 Feb. 2009; Mervyn King's evidence in response to Q 2354 HC Treasury Select Committee 26 Feb. 2009).

[22] Ibid., and see HM Treasury, *Reforming Financial Markets* (London, 2009); G. Tett, *Fools Gold* (New York, 2009); A. Turner, *A Regulatory Response to the Global Banking Crisis* (London, 2009). It is widely accepted by the G20 governments, including the UK Treasury, that a key contributing cause of the credit crisis of 2007–9 was the failure of national regulators to respond, in coordination with other national regulators and supra-national regulators, not only to the excessive risks being taken by some individual firms, but to the problems of global system-wide risk—see HM Treasury, *Reforming Financial Markets*, para. 3.1; G20, *Declaration—Summit on the Financial Markets and World Economy, November 2009* (Washington, DC, 2009).

[23] On networks in which regulation is 'decentred' rather than simple and focused, see J. Black, 'Decentring Regulation: The Role of Regulation and Self-Regulation in a "Post-Regulatory World"' (2001) *Current Legal Problems* 103–46, and on the challenges of network coordination, see E. Bardach, *Getting Agencies to Work Together* (Washington, DC, 1998); W. Kickert, E.-H. Klijn, and J. Koppenjan (eds.), *Managing Complex Networks* (London, 1997); H. Sullivan and C. Skelcher, *Working Across Boundaries* (Basingstoke, 2002).

[24] J. Black, *Managing the Financial Crisis: The Constitutional Dimension*, LSE Law, Society and Economy Working Papers 12/2010 (London, 2010).

firms, but risk-based regulation may tend to prejudice that support in so far as it involves the regulator in making transparent decisions about intervention priorities and the actions that it will *not* take. When such prioritizations clash with political and public expectations of protection, the regulator may encounter political troubles. In times of crisis (as with the credit crunch) such difficulties may be acute.[25]

A third implementation challenge for risk-based regulators is to ensure that the various strategies that they deploy do not undercut each other or the logic of risk-based regulation itself. Thus, one issue might be whether applying a deterrence-based enforcement strategy will impact adversely on the detection and information collection functions that are central to the logic of the risk-based regime. Such an impact would pose significant practical difficulties for risk-based regulators, but the regulator's choices may be limited. They may have to use formal enforcement actions, such as fines, to change the behaviour of many firms. In such circumstances, responding to non-compliance with a deterrence approach may cut across the ability to detect that non-compliance in the first place. Firms know that any information they give to the regulator may potentially be used against them in an enforcement action and this can have a chilling effect on their cooperation with that regulator.[26]

COPING WITH CHANGE

A special danger in a risk-based regime is that the regulators become 'locked-in' to an established method of identifying key risks and of dealing with these. One reason why this problem may arise is that risk-based regimes are often 'sold' to politicians, to agency staff, and to the public, as a rational guide that justifies intervention and can be used to ward off criticism.[27] This can mean that following the given framework becomes the institutionalized process so that regulators become slow to explore the risk model's inherent weaknesses. They also become unresponsive to changing circumstances so that they fail to detect and deal with new risks and changes in risk profiles (notably increases in risks). The danger is that the framework is historically rooted in a way that does not enable the regulator to react sensitively to an unpredicted, and sometimes unpredictable, future. The Hampton Review, indeed, was well aware of the danger that risk frameworks can prove too static. Hampton argued that regulation 'should always include a small element of random inspection' in order to check on the validity of the risk assessment system.[28] A value of random inspection, on this view, is that it holds out the prospect of

[25] Ibid. See also J. Black and R. Baldwin, 'Risk-based Regulation: How Low Can You Go?' (forthcoming).

[26] See Black, *Risk-based Regulation.*

[27] See Black, 'Emergence of Risk-based Regulation'.

[28] Hampton Report, para 2.38; Statutory Code of Practice for Regulators 2007, para. 6.2.

uncovering new risks and risk-creators in a way that is unlikely to flow from an inspection programme that is based on analyses of previously identified risks.

Random inspections only, however, serve to combat model myopia if they break away from the normal risk assessment framework and if regulatory supervisors feel able to communicate new or emerging risks to those in the policy or risk division in the course of their day-to-day monitoring and assessment activities. At best, there should be an institutionalization of a dynamic process for identifying new or emerging risks.[29]

Coping with change demands, at its core, that the regulator can be performance-sensitive—that it can measure whether its current approaches are proving successful in achieving desired objectives; that it can justify the strategies adopted; and that it can adjust these when needed. Risk-based regulators, however, may find such performance sensitivity difficult. In the first instance, there is the counterfactual issue. Risk-based regulation is, in essence, directed towards future events that may or may not happen. If a harm does not ensue from a risk, it can be difficult, if not impossible, to show that this outcome was the result of the regulator's actions. Performance assessment will tend to be the easier when the regulated area involves the control of numerous incidents of a similar nature and where data is routinely and easily collected.[30] Matters are far more difficult where the regulated domain provides no set of data on past incidences from which probabilities can be derived or against which regulatory strategies can be correlated.

A further difficulty may confront risk-based regulators when they strive for performance sensitivity. This stems from the risk-based approach's commonly substantial delegation of control functions down to the risk management systems of the firms being regulated. It is a regulatory method that focuses attention on the quality of a firm's internal controls. As Black has said: 'meta-regulation is inevitable: regulators simply do not have the resources to do anything else. Reliance is a fact of life. What the risk-based frameworks are intended to do is to help the regulator identify where it is well placed, where it is not, and how it can be made so.'[31] In such 'meta-regulation' regimes, however, this reliance on delegated regulatory controls makes performance assessment especially difficult. A particular challenge arises because different actors—be they corporations, regulators, credit ratings agencies, or other bodies—may use different models or 'codes' to evaluate risks and they may operate with different cultures. Regulators may think of risk control objectives

[29] See, for example, the Canadian Office for the Supervision of Financial Institutions (OSFI) and its 'emerging risks committee' procedure.

[30] In the area of health and safety, there are particular types of recurrent injuries at work, such as 'slips and trips'—see Black, 'Emergence of Risk-based Regulation'.

[31] Black, 'Emergence of Risk-based Regulation', 544.

with reference to statutory purposes, whereas firms may see internal risk management as properly directed at profits and market share. The risks that the regulator is concerned with will, indeed, not always be the same as the risks that the firms are focused on.[32]

This means that, in so far as regulators enrol regulatees or other actors in the regulatory regime, this involves a substituting of the latter's codes for the judgements and decisions of the regulators—and it does so in a manner that renders risk evaluations all the more opaque to regulators, as well as to the broader community.[33] When layers of such codes are involved in the provision and evaluation of services—as when corporations, credit ratings agencies, financial institutions, and regulators are involved with a securitized product—there can be a worrying lack of connection between the regulator and the risk evaluation.[34]

An additional problem that risk-based regulators may experience in seeking to cope with change relates to the manner in which regulatory performance is assessed. On this point, it might be thought that risk-based regulation offers a ready means of judging performance. The risk scores of regulated firms and individuals can be compared year on year (or month on month) and this will reveal whether overall levels of risk are increasing or decreasing. This approach, however, tends to focus on a given set of historically established risks and, if this is so, they will reveal little about the regulator's success or failure in coming to grips with new risks and new risk-creators. Using a given framework for risk analysis presupposes, furthermore, that there is a perfect fit between the risk framework and the regulator's objectives—and it will, accordingly, give no indication of the extent to which undesirable risk creation is escaping the regulatory net. There is liable to be no measure, for instance, of the prevalence of creative compliance or new types of risk creation or risk-creators that are not covered by the current rules. As a result, analyses of relative risk scores will not indicate whether the regulatory regime is addressing a major portion of threats to regulatory objectives or only a small percentage of these.

A further problem that risk-based systems may encounter in dealing with change is that it may be difficult for regulators to adapt to shifts in preferences

[32] One of the difficulties the FSA has faced in implementing ARROW is communicating to firms that the risks that the FSA is concerned with are not always the same as the risks the firms are concerned with—see Briault, *Rationale for a Single National Financial Services Regulator*, and Black, 'Emergence of Risk-based Regulation'.

[33] On enrolment, see J. Black, 'Enrolling Actors in Regulatory Processes: Examples from UK Financial Services Regulation' (2003) *Public Law* 62–90.

[34] E. Gerding, 'The Subprime Crisis and the Outsourcing of Financial Regulation to Financial Institution Risk Models: Code, Crash and Open Source' (2008), available at SSRN: http://ssrn.com/abstract=1273467; J. Gray, 'Is it Time to Highlight the Limits of Risk Based Financial Regulation?' (2009) 4(1) *Capital Markets Law Journal* 50–62.

and objectives. Risk-based regimes always have to contend with possible disjunctures between the regulator's perceptions of risk and those of the public (or certain groups of interests), but the additional problem is that those disjunctures are not static. Preferences concerning regulation often change—as seen in the post-credit crisis period in the UK when sections of the public, the government, the regulators, and the media lost a good deal of faith in 'light-touch' regulation. The public may want different things of regulators at different times, and so may governments, legislators, extra-jurisdictional bodies, and particular groups of interests. The problem is that if regulators are committed to the given framework, they may be slow to respond to changes—especially when the processes of constructing and developing that framework are positioned deep within the bureaucratic process and are, as a result, insulated from the public pressures that might be expected to galvanize change.

One more problem is that if risk-based regulation involves a misalignment between the institutional risks of the regulator (i.e. the risks to the regulator's reputation and objectives) and risks to society (e.g. of harms such as injuries or deaths), this may make the regulator unresponsive to changes in risks to society's interests. Thus, to cite Rothstein et al.'s example of rail safety, a rail regulator may tend to focus on risks of multiple fatality accidents to a degree that is not commensurate with the attention it devotes to the control of common minor accidents that cumulatively cause as many or more fatalities.[35] It may do so because it is aware that multiple fatality accidents may detract from the regulator's reputation in an especially negative and disproportionate manner. In these circumstances, the focus on risks to the regulator renders the regulator less responsive to changes in risks to society (e.g. new kinds of minor but frequently ocurring accident) than it might otherwise be.

Finally, note should be taken of the special difficulties of contemplating radical changes in regulatory strategy from 'within' a risk-based regulatory regime. The problem here is that a mindset that centres on analysing and reacting to risks will not be readily attuned to the consideration of ways in which risks can be 'designed out' of economic or social processes by moving towards pre-emptive managerial strategies. Such shifts of approach may demand a breadth of analysis that the 'process myopia' of the risk-based system does not encourage. The message of the 'really responsive' approach here is that the risk-based regulator should always be aware of the possible need to move beyond the merely responsive.[36]

[35] H. Rothstein, P. Irving, T. Walden, and R. Yearsley 'The Risks of Risk-based Regulation: Insights From the Environmental Policy Domain' (2006) 32 *Environment International* 1056–65.

[36] See Black and Baldwin, 'Really Responsive Risk-based Regulation'.

JUSTIFYING RISK-BASED REGULATION

Regulatory decisions that are based on risk appraisals will often prove to be more difficult to justify than involved parties have initially anticipated. The reason is that this is an approach that makes considerable promises—notably that the challenges and complexities of regulation can be rationalized, managed, and controlled. As has been said of risk-based regulation: 'it suggests that the notoriously complex task of regulating can be rendered manageable, and that the contingencies of unpredictable events can be made controllable . . . hesitancies are lost in the confident exposition of risk identification, assessment and validation'.[37] Risk-based regulation is thus commonly seen as not only more rational, cost-effective, and controllable than other systems but more transparent and more easily justified.[38] At the political level, risk-based regulation was, indeed, welcomed in the UK as a way to curb what was seen as the insatiable appetite of politicians and the wider public for regulation.[39]

Delivery on these undertakings is extremely difficult, not least because there is often considerable dissonance between the regulator's understanding of risk priorities and those of the firms, or indeed the wider public. Choosing which risks to focus on is, as noted above, a political, not a technical issue, and judgements have to be made on such matters as: whether to target the largest risks or the places where the largest risk reductions can be effected for a given level of resource input; whether to focus on individual risk-creators or specific types of risk; the right balance between acting on systemic risks and controlling individual risks; and ultimately what is an acceptable level of risk. A further issue of difficulty is whether to err on the side of over-intervention (assuming that certain firms pose risks when they do not) or of under-intervention (assuming that they do not pose risks when they do). Each position on these issues brings contention and problems.[40]

Nor, to repeat, does transparency always assist in legitimation. Regulating according to a risk-based framework exposes the reality that there will be a limit on the resources that can be spent on controlling certain types of risk creators (e.g. low-impact firms), or certain types of risk (for example, those with medium/high impact but low probability). Such a framework also exposes

[37] Black, 'Emergence of Risk-based Regulation'.

[38] Better Regulation Taskforce, *Enforcement* (London, 1999); *Higher Education: Easing the Burden* (London, 2002); *Bridging the Gap: Participation in Social Care Regulation* (London, 2004); *Avoiding Regulatory Creep* (London, 2004); Hampton Report; Gershon, *Releasing Resources to the Front Line*, para. 2.22; O'Donnell, *Financing Britain's Future*, para. 3.80 (available from www.hm-treasury.gov.uk/).

[39] Black, 'Emergence of Risk-based Regulation'.

[40] Black, 'Emergence of Risk-based Regulation', notes 141–51. (London, 2004).

the balance between individual and systemic risk controls. This means that officials are required to leave certain risks or types of risk uncontrolled or subject to limited supervision. This can be difficult for regulatory managers to justify to the public and to regulatees.[41] After a harmful event has occurred at a firm it may, for example, be difficult to explain to the media that firms of that class are not regulated as a priority because they have risk scores that are too low. Similarly, it may be difficult, after a systemic catastrophe such as the credit crisis, to explain why systemic issues had not been given a higher priority.

Some regulators manage these challenges by incorporating public perceptions explicitly into their risk-based frameworks. For the UK Pensions Regulator, for example, a key criterion for assessing risk is whether a failure in a particular area would lead to a loss of public confidence in the regulator and in the pensions system. Other regulators seek to deal with public attitudes reactively, but a general difficulty in taking public attitudes on board is that a regime of risk-based regulation that is too responsive to the public will lose much of its identity as a systematized and rational way for regulators to manage their resources.

Risk-based systems may also be difficult to justify to staff who have to reconcile the advertised technical neatness of those systems with the political messiness of the world that they seek to control. An irony here is that, in its early years, risk-based regulation was promoted within some regulatory bodies as a defence mechanism—on the basis that if one followed the book, one would be immune from criticism.[42] The bureaucratic reality, however, has been that if senior management fail fully to articulate the extent to which they will 'buy in' to the risk-based process so that they accept that mistakes will be made and that things will be left undone, this will reduce the confidence of staff in the system and lead to the taking of self-protective steps such as operating on the basis of factors other than risk analyses (such as perceptions of political risks to themselves). This is liable to hamper the implementation of the risk-based regime and reduce the rationality that lies at the heart of its justificatory claims.

A special justificatory challenge for risk-based regulation is that of satisfying expectations regarding openness, transparency, and accountability. Here again there are paradoxical elements. On the one hand, risk-based regulation holds out the prospect of transparency through the exposure of its numerical/analytic basis. On the other, a closer look at the operation of such systems reveals that they are built on high levels of discretion and politically contentious judgements and that the important policies and decisions tend to be hidden away behind the

[41] The FSA has discussed the gap between public expectations of what regulators should or should not be able to achieve, and what 'reasonable' expectations should be—see FSA, *Reasonable Expectations: Regulation in a Non Zero-Failure World* (London, 2003); see also Black, 'Emergence of Risk-based Regulation', 541–2. On approaches to low risks, see Black and Baldwin, 'Risk-based Regulation: How Low Can You Go?' (forthcoming).

[42] Black, 'Emergence of Risk-based Regulation', notes 172–3.

apparently neutral language of the risk assessment model.[43] This point applies especially to the definitions of thresholds for intervention, the risk assessments themselves, and the subsequent categorizations and scoring of firms.

All regulators have to prioritize the use of resources, but it is best to understand the implications of doing this through risk-based processes. What can be seen is that framing the regulatory task in terms of risk involves buying into particular conceptions of the problem at hand. It leads to the framing of a solution in a particular way, and produces special challenges of justification and legitimation. In adopting risk-based frameworks, regulators attempt to define the acceptable limits of their responsibility and hence accountability. In such processes, risk-based regulation implicitly or explicitly defines what risks the regulator should be expected to prevent, and those which it should not—those it should be blamed for not preventing and those which it should not be blamed for not preventing. As Power has argued, attempting to manage risk requires a new 'politics of uncertainty', involving not only assessments of who should be responsible for dealing with its consequences but an appreciation that no-one is to blame for true uncertainty.[44] Risk-based regulation, argues Black, also requires a new and related politics of accountability and a quite distinct mode of legitimation.[45] That politics involves new debates on who should be making decisions on the risks that are important and those that are not.

Such issues of justification and legitimation, moreover, can be expected to vary across the various core tasks of regulation. The above discussion of risk-scoring, for instance, relates to the task of discovery—of identifying targets for intervention. Quite different, but nevertheless risk-based-specific sets of issues will arise when looking at the processes of enforcement and compliance-seeking on the ground, or the processes of assessing performance by means of risk analyses, or those of modifying regulatory strategy. The need to come to grips with all of these issues is the important message of what has been called the 'really responsive' approach.[46]

Conclusions

Risk-based regulation has achieved broad acceptance within many governments and regulatory organizations, but it is an approach that has to overcome many hurdles if it is to succeed on the ground. Risk-based regulation is

[43] Black, 'Emergence of Risk-based Regulation'.
[44] Power, *The Risk Management of Everything*.
[45] See Black, 'Emergence of Risk-based Regulation'.
[46] See Black and Baldwin, 'Really Responsive Risk-based Regulation'.

perhaps best seen not as a free-standing and technical guide to regulatory intervention but as a particular way to construct the regulatory agenda and as a control strategy that has to be combined with other control strategies in different (and often contentious) ways across different contexts and regulatory tasks. Coming to grips with the challenges of risk-based regulation might appear to be daunting and difficult to operationalize. Those difficulties are, however, vastly outweighed by the costs of regulatory failure. If there is one message to take from the credit crisis, it is that there is a colossal price to pay if regulators do not deal adequately with the challenges discussed here—notably, in the case of banking, those produced by changes in the nature of risks or risk-creators and by the constraints that flow from the institutional environments in which the regulators and regulated firms work.