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“Failures of imagination” and “failures of initiative” are arguably two of the most widely used diagnoses when things go wrong. The “lack of imagination” criticism – made famous in the seminal 9/11 Commission report – emphasizes how organizations ignore warning signs, fail to “connect the dots”, and do not account for “exceptional” events. The “lack of initiative” critique – levelled at various decision makers in response to Hurricane Katrina – suggests that organizations and individuals are reluctant to exercise discretion, wait for confirmation and approval, and follow procedures when “action” is required.

These two views about how things can go disastrously wrong are hardly controversial. However, they contradict two equally frequent diagnoses of risk regulation. One is “over-imagining”: every potential risk is considered and responded to, which leads to substantial over-investment in the anticipation of low-risk events. The other is “over-excitement”: politicians and regulators are said to be driven to react to media pressure by pronouncing on possible risks and their prevention early. One arguable example is the German response to the EHEC virus in late spring 2011. The initial suspects, Spanish cucumbers, were later proven innocent.

Risk regulation is about dealing with the tension between these (and other) different diagnoses of “poor” responses. To address the inherent tensions and contradictions in risk regulation it is necessary to establish processes that enable reflection on contrasting definitions and estimations of particular problems and on how interventions are likely to trigger side-effects. Risk regulation is thus not about establishing supposedly “quick fixes” that will prevent a particular event from reoccurring.

Again, such a claim might appear uncontroversial. It is therefore particularly disappointing that contemporary regulatory discussions have not learnt from the catastrophes of the past decade. Here, it seems, the “failure of imagination” in terms of thinking about the future direction of risk regulation is particularly prominent. For example, towards the beginning of this year the OECD (2011) issued some draft proposals for future “recommendations on regulatory policy and governance”. Reading these proposals makes one wonder whether the past decade has witnessed any regulatory failures at all. Insights generated by the financial crisis or by other disasters such as the “Deepwater Horizon” oil spill off the coast of Louisiana are scarce. Instead, there is a continued “lack of initiative” in the form of a reliance on the traditional technocratic and pro-market regulatory measures that seemingly promise to inject “rationality” into regulatory decision making.

Evidently, instruments of review and evaluation have their place in any system of decision making. However, risk regulation more generally should seek to incorporate some of the experiences from the past. It must be acknowledged, first of all, that risk regulation operates in a political space. This does not mean that politics should be taken out of decision making, but rather that the inherent political nature of risk regulatory decision making needs to be recognized. As the aftermath of the Fukushima nuclear disaster has illustrated, the close connections between operator, inspectors, and government were widely known and came as no surprise. In addition, risk regulation needs to accommodate the basic fact that organizations and individuals seek to protect their reputation, respond in often “creative” ways to commands, and – especially in the immediate context of crisis – operate in a setting of genuine uncertainty. The most rigorous policy designs do not help if their existence is unknown to the professionals “on the ground” and affected citizens. For example, debates in Norway in response to Anders Behring Breivik’s killing spree have concentrated on how security organizations could co-ordinate their actions better in response to such unthinkable chains of events. Such debates should not be about being an organization “with a plan”, but rather about being an organization with the capacities to respond systematically when faced with unexpected circumstances.

To diagnose “failures of imagination” and to complain about a “lack of initiative” is not very difficult. What is far more difficult is to suggest what to do about it. The contemporary debate about the future of risk regulation is threatening to display a lack of imagination and initiative by warding off the lessons of the past and simply returning to earlier patterns. CARR’s intellectual contribution has always been to focus on the organizational and governmental responses to risk alongside technological matters. This issue of Risk & Regulation is no different. Many of the following articles illustrate – and some stress – the fundamental importance of appreciating the relational character of regulatory regimes and the importance of considering trade-offs, tensions, and paradoxes that should be at the heart of conversations about the future of risk regulation.

Martin Lodge
CARR Deputy Director

Reference
The day before I wrote these lines, global financial markets suffered losses not seen since the beginning of the current economic crisis in the summer of 2008. Reports of poor growth prospects, increased unemployment, and what now seems to be an historical sovereign debt crisis lowered investor confidence in the future of European and American economies. The revised forecasts of investors were reflected in share prices across the board: while the DJIA lost 4.5 per cent in a day, the FTSE lost 5.4 per cent.

These events, however, were largely expected. Although unpredictable, price formation in financial markets is well understood. Through the interaction of supply and demand, prices of financial instruments reflect aggregate opinions on governments and corporations; as such, prices should decrease when forecasts are negative and increase when they are positive. Given recent news, it is not surprising — indeed, not unexpected — that markets took a plunge. This is, after all, what any standard textbook in financial economics would tell us to expect.

Not all price fluctuations are expected, at least not in the above sense. Little more than a year and a half ago, markets faced an entirely unexpected event. On 6 May 2010, amid increasing uncertainty surrounding sovereign debt in the eurozone, American markets collapsed dramatically. In a span of 20 minutes, between 2:45 and 3:05 pm, the Dow Jones Industrial Average fell more than 9 per cent — the single largest intraday fall in the history of the index. After frantic activity and pauses to trading in several venues, indices recovered. By the end of the trading day, losses were limited to 3 per cent.

The events of that day were notably different from the recent turbulence in financial markets. The revised forecasts of investors, the lacklustre economic performance described by the financial press, and the general anxiety that percolated market sentiment in May 2010 simply could not account for the intensity and speed of the fluctuations — more than $600 billion lost in a quarter of an hour. The events, colloquially known as the “flash crash”, were unexpected; they were incommensurable with both the cognitive toolkits of market participants and the economic paradigm of price formation. More importantly, however, they illustrated how unexpected events emerge from the complex fabric of the global financial system. After an extensive investigation by the Securities and Exchange Commission, the initial yet relatively simple explanation that an erroneous, fat-fingered trade caused the problem was replaced by a more intricate picture. The systemic interconnectedness of the derivatives and securities markets, interactions between automated execution systems and algorithmic trading strategies, and the different standards for stopping the market in times of volatility colluded in fuelling the crash.

Perhaps ironically, at a time when Keynesianism is experiencing a revival in policy circles, the flash crash makes Hayekian metaphors of the market relevant. In “The use of knowledge in society”, Hayek (1945) wrote of the price system as a “kind of machinery for registering change … which enables individual producers … to adjust their activities to changes of which they may never know more than is reflected in the price movement”. The metaphor was prescient, for financial markets — perhaps the best crystallizations of the abstract price systems of economics — resemble machinery in important ways. Today, a typical trading room is a thoroughly technological space, populated by an array of devices of different degrees of sophistication, from dedicated telephone lines that allow traders and investors to communicate between distant offices to spreadsheets, computers, and algorithms that calculate the prices and risk of novel esoteric instruments. Perhaps more tellingly, once grandiose sites for face-to-face dealing and social bonding, stock exchanges are now assemblages of computer servers and electronic matching engines placed in inconspicuous locations far from centres of financial activity.

Technology’s critical role in finance raises a series of policy-relevant questions. Notably, if markets rely on machinery, their evolution must be shaped by forms of innovation which transcend the production of novel contractual instruments. That is, in order to understand the dynamics of financial markets, conventional approaches to financial innovation must be complemented by clearer models of (material) technological innovation. The development of sophisticated derivatives, for instance, is inseparable from innovations in computing and mathematical modelling, which form the core of existing valuation practices. There is no amount of regulation and no market failure powerful enough to conjure the computing capabilities of a modern computer for the valuation of a tranchéd derivative. In effect, the nature of risk, financial stability, fairness, and efficiency is as much a product of the characteristics of technology and material innovation as it is a product of rules and regulations.

The flash crash illustrates how models of financial innovation which take account of technological development can provide insights into the formation of financial risk. These models explain, for instance, the occurrence of unexpected events such as those observed on 6 May 2010 in the American markets. Recent research in social studies of finance suggests that securities markets are particularly prone to forms of innovation that foster structural uncertainties about the technical state of the market. In situations of stress, such uncertainties can produce the type of unexpected (indeed, unpredictable) disaster observed last year. In particular, these uncertainties are the product of a pattern of so-called fragmented innovation.

The term “fragmented innovation” alludes to two different meanings of fragmentation in the context of securities trading. The first concerns the increased division of the market in terms of the growth in the number of public trading venues. This type of fragmentation is the result of pro-

“There is no amount of regulation and no market failure powerful enough to conjure the computing capabilities of a modern computer for the valuation of a tranchéd derivative.”
competition regulations and the widespread adoption of technologies over the past three decades. While 30 years ago the trading of individual stocks was generally limited to single exchanges, today the market in one share is often divided across different venues. The market is thus said to be fragmented. Technology developers increasingly work within these fragmented contexts, creating devices that allow traders to access a “global” (though decentralized) pool of liquidity and to exploit opportunities that emerge from price differentials across different venues. Technologists thus bridge markets through a complex arrangement of communication networks, enterprise resource planning systems, and trading strategies, making the price system a thoroughly technological product.

The second allusion refers to the increasingly secretive environment in which innovation occurs. In highly competitive conditions, in which profits depend on the successful operation of technology and trading strategies, both market participants and technology developers face clear disincentives towards sharing information about their systems, processes, and algorithms. Every detail about a particular trading algorithm or about the nature of a relay in a communication network is a competitive edge that must be guarded from competitors. High levels of secrecy are particularly evident in the realm of high-frequency trading. In high-frequency trading, firms use computer algorithms and high speed communication networks to exploit minute arbitrage opportunities within and across markets by automatically trading relatively small lots of shares thousands of times throughout the day. The algorithms and business processes of high-frequency trading are highly opaque for a clear reason: information leakages can render an algorithm useless in a matter of days, even hours.

These two forms of fragmentation interact to create structural uncertainty within the market. Whilst market fragmentation results in the development of systems that create complex technological links across venues, the competitive knowledge-intensive economy of modern finance leads to a form of secrecy that makes it difficult to map the interactions in the system. Ironically, the same regulations that were supposed to produce a fair and transparent price system institutionalized disincentives for technical transparency. The consequence is a financial system characterized by numerous trading venues (large firms in London, for instance, are active in about 48 different venues) linked by highly automated black boxes modelled after different design paradigms. And even if the operation of trading venues may be quite transparent (exchanges often provide detailed technical information about their systems), the structure of the market is made opaque by the black boxes of the users. Uncertainty is built into the system.

Anchored in the infrastructures of finance, structural uncertainty reveals two forms of technological disasters that are relevant to our understanding of risk. In addition to critical failures, the financial system is susceptible to both normal and epistemic accidents. The former consist of catastrophic events caused by seemingly trivial and unremarkable interactions within the system. Normal events are largely tractable: however odd and improbable, the interactions leading to disaster are either knowable or known. In contrast, epistemic accidents (see Downer 2010) originate from constraints on knowledge. Epistemic accidents do not result from expected, though apparently unremarkable, interactions. They are, rather, the product of epistemic limitations on what can be said about technologies. They are, in this sense, unexpected.

The flash crash illustrates how markets are prone to technological accidents. Initial accounts rendered the event as a normal accident, suggesting that finance was a complex system: a fat-fingered trade, argued commentators, initiated a cascade that exposed tight couplings in the American securities market. (Although its explanation differed, the report from the Securities and Exchange Commission also stressed interconnectedness as a cause of the flash crash.) But the flash crash can also be read as the consequence of broader epistemic limitations on the technological structure of the market – as an epistemic accident. Despite months of investigations, the official report of the flash crash was received with scepticism by market participants. Indeed, the report did little to thwart subsequent “mini flash crashes” at the level of individual stocks. The reoccurrence of such unexpected price fluctuations may well reflect the need for novel theoretical approaches to the market. And while it may not be necessary to abandon Hayekian metaphors of the price system as a source of information, it might be profitable to better explore the complex role of technology in the machinery of modern finance.

References


Financial advice: regulating ambiguous interactions

Instead of securitization and a future shaped by ever-rising home prices, the Eastern European brand of financial crisis, most dramatically in Hungary, is mass default on foreign currency mortgages. This is due to a strengthening Swiss franc, whose appreciation is said to reflect the global financial crisis, Hungary’s near-bankruptcy, and the eurozone’s debt crisis. Simultaneously, because 85 per cent of current Hungarian mortgages had been issued mostly in francs (partly in euros), mortgage payments have increased – at times by 30 per cent. Defaults are approaching 12 per cent in 2011, says the Hungarian Financial Services Authority (PszÁF). The government’s response is a controversial rescue package, which lets debtors repay mortgages fully at a fixed, lower exchange rate.

How did Hungarians enter into such risky obligations? While the Financial Services Authority recognizes that it mattered how these mortgages were bought and sold, it portrays financially illiterate consumers cajoled into disadvantageous deals by salespeople for profit-mongering. I offer a sociological interpretation based on extensive observations of bank interactions before the crisis. I compared how banks organized and conducted face-to-face services – how bank workers presented and explained financial products to clients – in Hungary around 2006.

From up close, bank-client encounters are not such clear-cut instances of misinformation. They are ambiguous situations – constantly blending “uninterested” advice and “interested” selling – in which lay person and expert together make financial products appear as tangible, calculable entities. For example, Hungary’s failure to join the euro and rising unemployment have been identified as key influences on households’ expectations and subsequent defaults. But precisely how did such “macro” events enter Hungarians’ everyday planning and financial decisions? Important clues lie in the specific manner in which finance was brought to life as advice.

Mass personal banking
Banks worldwide have been focusing on building personal relationships with masses of customers. Banks increasingly use Customer Relationship Management (CRM) software, advertised as offering a “360 degree view” of the client’s financial activities. Face-to-face sites have been revalued: formerly seen as dark pits, they are now deemed “gold mines”; formerly the most expensive sales channel, they have become “added value”. The Hungarian banking sector developed personal services intensively to compete for a limited pool of profitable clients, reach “under-banked” populations, “catch up with Western levels” of consumer indebtedness and risky investment, and introduce new financial ideas – from savings plans to credit cards. Branch-building did not even abate in the crisis year of 2009.

CRM is designed to generate value from the relationship via multiple techniques. First, it tracks the customer’s interaction with the bank, building a relationship which nonetheless makes sellers substitutable. The client receives continuity of service based on her centrally stored and locally distributed profile at any “contact point”. The organization remembers you. Second, CRM enables “cross-selling” by calculating product recommendations for a given profile, Amazon-style. If a client has a current account with the bank, the recommendations might include a savings account, mutual fund, travel insurance, or credit card. Bank workers must convey these in person. Third, the Client Lifetime Value function estimates the profitability of a given client over the span of her relationship with the bank, in contrast with conventional accounting units such as products, activities, or profit centres. Clients get service according to their value.

When predictive technologies enter the face-to-face encounter, the bank’s representative is simultaneously interacting with an on-screen profile and a flesh-and-blood person. The task is to assemble this “hybrid client” – to make sense of profile and person as an entity – and make a product offer. This involves balancing and adjusting on the fly the client’s needs flowing from the CRM recommendations and transaction history and her needs flowing from live conversation, appearance, mood, and gestures.

Relationship technology has consequences for financial services. First, the way in which this tiny, ambiguous interaction is organized and unfolds in volume can shift market relations and larger market structures. Ironically, I observed that CRM yielded generic offers, as each bank clerk had worked out the handful of products she could easily bring up in socially proper ways, preserving the bank’s relationship with the client.

Second, sales support systems such as CRM – which make offering mortgages and credit cards easier – are not always tightly integrated with risk management. CRM consultants in Hungary recognized that employees may oversell risky assets to eligible customers on the basis of product recommendations and associated bonuses. In fact, banks often introduce cross-selling to gain market share and induce loyalty through the web of products and services customers sign up for. In this calculus, the mortgage becomes a sales “hook” for other services (current account, credit card, home insurance etc); besides a credit contract, it is an entry point to customer loyalty.

Third, CRM-aided encounters are wedged between a caring relationship and spot selling, familiarity and remaining strangers, personal service and mass industry. Relationship building is a business strategy, while service workers do care about their clients. More generally, interested and disinterested action blend in financial advice, which is rarely just deception-manipulation or simply following clients’ needs. For example, a bank clerk may offer travel insurance to every client who mentions something about “abroad”. Both clerk and client assume that this act is an ambiguous mix of their own interests. Their interaction constantly shifts.

“The precise setup and sequence of the simulations played through with experts can influence what kind of futures and mortgages people engage in. Financial regulation has not recognized this.”

Zsuzsanna Vargha discusses the interactive aspects of finance and points away from a product-based view on the crisis and regulation.
and reveals the underlying assumptions of who is deceiving or helping whom. This dynamic partly determine what is sold.

Non-portable prudence

Due to efforts to sustain a proper social and technical interaction, and to expectations about customer service as well as professional guidance, product properties such as exchange rate risk are seldom described or listed in full. Even if they are disclosed – bank employees were eventually required by law to make clients aware of exchange rate risk – there is the problem of showing a financial product “in action”. Demonstrating just what a financial product “does” in front of clients’ eyes is no easy task, even for products widely regarded as prudent. Hungarian home savings banks, mandated to popularize the imported and state-subsidized German Bausparkasse model (modest low fixed-rate savings-and-loan plan), constantly revised their calculation-intensive presentations. To explain why their product is safe, they went from hand-drawn graphs to Excel simulations of mortgage payment schedules. Nevertheless, just as with CRM, people learned about the product in non-linear, fragmented ways. Structuring information is the substance of expert advice – subject to manipulation and yet valuable guidance for consumers. Moreover, while clients may follow calculations on the spot, they cannot reproduce them at home. Their conviction of prudence dissolves into doubt, which often prompts bank agents to try to get deals in one sitting.

So what does it mean to “make customers aware” of something like exchange rate risk? Banks used mortgage pre-approval calculators to discuss payment options, but they did not “stress test” their clients’ budgets for Swiss franc rates. The relevant test at the time was Hungarian forint mortgages, and no currency fluctuation would make these cheaper than franc or euro interest rates. Moreover, I found that the household budget was not a ready-made, fenced-off sum clients brought to the consultation. The budget itself was tested and temporarily stabilized as clients and advisers were playing with payment scenarios – which varied by type of bank. At the home savings bank, the base of scenarios was the estimated monthly savings (to be used for loan payments) the household can bear. At the large universal bank I observed, the scenarios focused on maximizing the size of the mortgage; monthly burden was derived from this. The precise setup and sequence of the simulations played through with experts can influence what kind of futures and mortgages people engage in. Financial regulation has not recognized this.

Consumer financial protection

If financial advice is an ambiguous, fluid, social yet calculative situation, where needs emerge through fragments of interaction which translate people’s plans into technical product properties and back, what is the place of regulation in it? Reminiscent of the distinction between preventing epidemics and curing a person, authorities are not concerned here with risk to the bank (liquidity, bankruptcy) or the financial system (systemic risk) but with harm to the individual, which sometimes conflicts with organizational and systemic regulatory views.

Comparing how policies for consumer protection construct finance as a regulatory object, we see a tension between ensuring “safety” (US) or “suitability” (UK) and finance as a product or service. From a safety perspective, mortgages are similar to drugs or hairdryers: product design must ensure safe domestic use by generic customers. Meanwhile, the UK leans towards suitability and tailoring the process of exchange: the EU Markets in Financial Instruments Directive requires that advisers explain investments at the client’s level of expertise, while the FSA’s Treating Customers Fairly principles generally prescribe that the offered product match the client’s personal situation.

But vanilla is a good base flavour, too. Focusing on generic prudent design and transparent information disclosure may have adverse consequences. My findings and research in “high finance” suggest that simple, transparent products allow market actors to innovate complex, opaque structures around them. For example, home savings banks have morphed their state-subsidized conservative product into a cheaper mortgage.

Economic sociology

Research into the minute details of bank-client encounters helps us understand markets more broadly as series of unfolding situations in which parties respond to one another. Economic sociology has shown that markets are embedded in social relations. In personalized mass banking, we witness the ongoing and delicate work of building those relations. We can revisit the clear-cut divisions between familiar and anonymous market transactions and bring marketing into the centre of the study of finance and risk. Financial advice is a potent site for understanding markets and regulation at the same time.

CARR News contains information about a new “Financial Advice” Discussion Group set up in CARR to support the research agenda of which this article forms a part.

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Models Matter

Liz Fisher discusses why policy makers, decision makers, and lawyers need to pay more attention to the role of models in regulatory decision making.

Inherent in decision making about risk is the use of models. Models, as “simplifications of reality”, are powerful frames through which to highlight select attributes of a system, collate information about that system, and provide a basis for prediction. It is doubtful whether regulatory risk assessment or regulatory risk management as we currently understand these concepts could take place without modelling. Yet while most would acknowledge the ubiquity of modelling in areas such as financial risk management, environmental regulation, and chemical regulation, there has been little sustained mainstream discourse about models. Much of this is due to the fact that models are perceived to be highly technical and impenetrable to the non-expert. There is of course much truth in that assumption – models are eye-watering in their technicality – but the problem is that models, and in particular the reasoning inherent in models, are also regulating the reasoning and rationale for decision making (Fisher et al. 2010).

To understand how models regulate decision making there is a need to understand what models are. The United States National Research Council (NRC) has defined a model as “a simplification of reality that is constructed to gain insights into select attributes of a particular physical, biological, economic, or social system. Models can take many different forms” (NRC 2007). This definition highlights four important features of models. First, they are simplifications of reality and are therefore not reality. Second, models are created to “gain insights into select attributes” and are therefore created for particular purposes. In regulatory decision making, models are usually used in the exercise of power to grant pursuant to a regulatory mandate. In these circumstances, models can perform a mixture of purposes including: encoding knowledge, organizing and integrating information, and enabling prediction. For example, models are used to assess the level of risk and to decide what regulatory action would reduce that risk. Third, modelling is an interdisciplinary activity in that it integrates knowledge from many different scientific and social scientific disciplines. Modelling is thus not a monolithic scientific activity and modellers do not all come equipped with the same distinct body of expertise. Fourth, modelling does indeed come in lots of different forms. Some models can be very simple, eg a model that displays how emissions from a particular source flow into a stream. Other models integrate knowledge from many different disciplines. The obvious examples here are climate change models.

The more significant question is: what do models do? In regulatory decision making, the purpose of models is to provide a more rigorous basis for the rationality of the decision. Thus for example, the National Institute for Health and Clinical Excellence uses models to determine the cost effectiveness of a particular medical treatment. Models are also used to assess the safety of chemicals, to determine whether a contaminant on land creates a serious possibility of serious harm, or whether the lifting of a quarantine ban would create an unreasonable risk. In highlighting these roles, it needs to be remembered that models are not “truth” and that they may not be the only basis for decisions. With that said, their role in decision making cannot be ignored. In all cases, models are regulating decision making in that there is an expectation that a decision will rationally relate to a model. The implication of this is that the substantive validity of the model becomes relevant. If the model is held to be legitimate, then a decision related to it will be legitimate. If the model is found to be flawed, then the decision based on it will be flawed.

The relationship between models and the reasonableness of decision making can be seen in a number of recent legal challenges. Thus in Secretary of State for Environment, Food and Rural Affairs v Downs [2009] EWCA Civ 664 (07 July 2009), the Court of Appeal reviewed whether a pesticides exposure standard was in compliance with an EU directive. To legally assess whether it was, the Court needed to determine whether the model on which the standard was based was in compliance with the directive. To legally assess that, they needed to consider the reasoning inherent in the model, even though the Court upheld the decision. In Eisa Ltd, R (on the application of) v National Institute for Health and Clinical Excellence (NICE) [2008] EWCA Civ 438 (01 May 2008), Richards Lord Justice found that failure to give access to a fully executable model used in a technology appraisal was a breach of procedural fairness. That makes sense when one considers that the model contained the reasoning and rationale for NICE’s decision. As Richards LJ noted: “the robustness or reliability of the model is therefore a key question” (para 36), and a failure to provide access to a fully executable model was a breach of procedural fairness.

All this means that models are relevant for decision makers, but that raises the tricky question of how such decision makers should make sense of models. In particular, it becomes vitally important to understand that the development of these “simplifications of reality” is inherently complex in a number of different ways.

First, there is technical complexity. As a technical exercise, choices must be made in modelling about what to model and on what basis. These choices will be carried out among a web of scientific uncertainties and will be influenced by scientific taste. What this means is that for a single purpose you can have different models. With that said, and while models are not “truth”, some models are better than others, for example models based on better quality data (and more of it) and more robust theories. Of course, what is better quality data (or the best available data) and what is a more robust theory will be open to debate.

Second, there is institutional complexity, as models will be shaped by their institutional environment. At its most simple, a model will be influenced by its purpose. This influence is not “bad” or “sinister”, but inevitable. If you are creating a model for a
purpose, for the model to be useful, the purpose will shape the model. If what you need is a model to assess the likelihood of exposure to a contaminant in soil, then that is what you want the model to do. Likewise, the creation and utilization of models will be influenced by the understandings of good regulation that operate in the context in which they are embedded. Thus if good decision making is understood as discretionary and flexible, then models will be developed with that in mind. In Savva, R (on the application of) v Royal Borough of Kensington and Chelsea [2010] EWCA Civ 1209 (28 October 2010), for example, a model used for determining resource allocation for those needing disability care was understood simply to be “a starting point for indicative allocation” (para 8). Likewise, in a later case in regards to the same assessment regime it was noted that “[t]here has of course to be a rational link between the needs and the assessed direct payments, but, in our judgment, there does not need to be a finite absolute mathematical link” (KM, R (on the application of) v Cambridgeshire County Council [2011] EWCA Civ 682 (09 June 2011) at para 23).

In contrast, if models are understood as “truth machines”, then they will be developed and utilized on such a basis, although, as Wagner et al. (2010) have highlighted, as models are not truth, this can lead to problems in the decision-making process.

Third, models are complex from an interdisciplinary perspective – both internally and externally. From an internal perspective, models can integrate knowledge from different sources, and how this is done is by no means straightforward. Likewise, reliance on models by decision makers requires them to develop what Collins and Evans (2007) have described as “interactional expertise” in dealing with such models. That does not mean decision makers have to become modelling experts themselves, but they do need to understand the language and nuances of modelling.

Finally, there is evaluative complexity. As is clear from above, what is fundamentally important for mainstream decision making is evaluating the quality of models. This process of evaluation is made difficult by all the complexities above and also by the fact that different interests will create an incentive to exploit these complexities for a particular regulatory outcome. Thus in the cases above, generalist judges are finding themselves needing to understand the nuances of modelling in a particular regulatory context where they have two parties putting forward diametrically opposed arguments about the quality and validity of the model in question.

All of this makes clear that models matter in decision making about risk and that they matter in quite complex ways. Moreover, the focus for decision makers and scholars cannot be on the “answers” generated by models. Rather, there is a need to engage with the internal workings of models and with how they relate to the institutional context such models are operating in. None of that will be easy, but the task is an important one because understanding risk requires an understanding of models.

References

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“…generalist judges are finding themselves needing to understand the nuances of modelling in a particular regulatory context where they have two parties putting forward diametrically opposed arguments about the quality and validity of the model in question.”
The Quality and Risk Profiles of the Care Quality Commission

Alex Griffiths introduces a key device of England’s independent health and social care regulator.

The Care Quality Commission (CQC) began life in April 2009, assuming responsibility for the regulation of health and social care in England from the Healthcare Commission, the Commission for Social Care Inspection, and the Mental Health Act Commission. It has been established on a methodology of risk-based regulation and registration, with every care provider in England, including all NHS and private healthcare, adult social care, and dental service providers, required to be registered in order to operate. When this process is complete, with the further inclusion of primary medical care, the CQC will be responsible for the regulation of some 50,000 locations where care is provided.

In order to register, and therefore operate, providers must evidence that they are meeting essential standards of quality and safety as laid out in the Health and Social Care Act 2008 (Department of Health 2009). The CQC focuses primarily on the outcomes that we would expect people using the services to experience if these regulations were being adhered to. In our monitoring of compliance, we focus on the 16 essential outcomes which most closely relate to the quality and safety of care.

Inspection is a crucial part of the CQC’s approach to regulation, and while there are minimum levels of inspection prescribed to make sure that all providers of care are visited, the CQC does not operate a traditional rolling programme of inspection. Rather, unannounced inspections can take place at any time if regulatory intelligence suggests that there is a risk of essential standards of safety and quality not being met. The Quality and Risk Profiles are designed to highlight such cases.

Quality and Risk Profiles (QRP)s

The QRP is a dynamic, regularly updated tool that gathers all the information we have about a location in order to enable us to assess risk of non-compliance with each of those 16 key outcomes and target finite resources effectively over tens of thousands of locations. It is presented as an interactive dashboard available to our national team of compliance inspectors through our central records system. Moreover, it is now available to all NHS providers, commissioners, and affiliated bodies online, with the option to download the underlying data for further analysis. The QRP is updated monthly.

Each of the 16 risk estimates is produced by the statistical aggregation of all quantitative and qualitative data items that tell us about how an organization fares in light of the specific outcome. These range from a number of local and national data collections to user reviews, local intelligence, and statutory notifications of events reported by the organizations themselves.

Quantitative data items can take the form of a proportion, a ratio of counts, a directly or indirectly standardized ratio, categorical or ordinal data. Each data item is a singular indicator, such as a survey question or a staff-speciality vacancy rate, for which either the mean performance is calculated or an expected standard set. An organization’s performance is then compared with this expected level. This generates a statistical “oddsness” score. All data items are also weighted on a three-point scale for data quality, relevance to the key outcome, and how much the item is telling us about the experience of the user.

Qualitative data items are coded by a team of analysts as being of either positive or negative sentiment and then weighted according to the above categories. From this, a “pseudo z-score” is created for each piece of information.

The z-scores for both qualitative and quantitative data are then combined, with the weighting factors being taken into account, and, where we have statistical confidence in the measure, an estimate of the risk of non-compliance is produced in the form of a dial. Each dial can take one of eight positions: low or high green, amber, neutral, or red, respectively indicating an increased risk of non-compliance.

It is important to note that these dials do not represent the CQC’s judgement about compliance, but rather serve as a guide for front line regulatory activity which, along with other information, may prompt responsive reviews of compliance by our inspection teams. The inspection teams are responsible for making such judgements.

Within each outcome, data items can be sorted by or filtered on a number of criteria, including: how performance on an item compares with the expected level, the time period of the data, the data source, and each of the weighting factors. Moreover, the dial positions for the last six QRP data refreshes are charted to show whether the level of risk has been increasing or decreasing over time. This helps contextualize the risk estimate for the inspector.

In addition to providing an estimate for the risk of non-compliance for each outcome, the QRP acts as a central point of information for inspectors and holds a number of pieces of data which it may not be suitable to map to specific outcomes but which still provide important contextual information.

Contextual risk

Contextual risk estimates are also provided for the NHS and adult social care sectors. They are determined not by the performance of an organization, but by the context within which it operates. The idea behind contextual risk is that it provides a lens through which to view the QRP. For example, were an organization which undertakes few cardiovascular operations to have a similar above expected mortality rate as an organization which undertakes a high volume of such operations, the inspector may wish to prioritize the latter. This is because one would expect a higher volume of surgeries to lead to more well-practiced surgeons, and therefore an above expected mortality rate may be indicative of a more serious issue.

Contextual risk estimates are made up of three risk estimates: inherent risk, focusing on the services provided by the organization; situational risk, focusing on the organizational context and history; and population risk, focusing on the local population served by the organization. The inherent, situational, and population risks are each estimated to be red, amber, or green (or not applicable) and are made up of individual indicators scored from “Unlikely to be risky” through to “Very likely to be risky”. Each individual item threshold was based on the results of an extensive literature review undertaken by the CQC.

Notifications

Providers of care are required to submit statutory notifications to the CQC when certain events occur, from serious incidents, such as the unexpected death of a service user, allegations of abuse, or a detained mental health patient absconding, to more administrative matters, such as a change in the registered manager. Counts of the number of each notification type are tabulated and graphed for the past six months. These are displayed alongside comparisons of the number of notifications received to similar organizations and a timeliness of reporting measure to enable the QRP user to detect any deviation from expected performance (this can include both a high number of reported incidents potentially indicative of improvements needing to
be made and a low number of reported incidents potentially indicative of underreporting).

Inspectors can also link to a second dashboard which compares the number of notifications submitted by an organization to others within their inspector portfolio to help contextualize this information.

**Surveillance**

The CQC also operates a surveillance programme, primarily focused on the NHS, which monitors amongst other sources Hospital Episodes Statistics to try and flag up areas for improvement as soon as possible. Statistical outliers, for example in relation to mortality following certain procedures, are identified and followed up with the NHS trust as part of the programme. Details of the cases, ongoing and completed, are included in the QRP for inspectors in addition to any alerts the CQC receives from the Dr Foster Intelligence group, which is a part of Imperial College London and operates a similar programme.

As a relatively young product, the QRPs continue to evolve at pace with new features being developed as a result of inspector feedback and developments in the care sector.

**Uncertainty risk**

Whilst data is abundant for many NHS services, it is scarcer in other sectors. We are currently investigating our options for adding an “uncertainty risk” estimate to the contextual risk section. This may comprise indicators covering such things as the number of voluntary data collections which an organization does not participate in, flags for below expected reporting of statutory notifications, and the proportion of outcomes for which we have not been able to produce a statistically valid risk estimate.

**Automated qualitative analysis**

We are also undertaking trials of automated text analysis software to further utilize the large volume of qualitative data about the quality of care available, the analysis of which is currently resource intensive. If successful, this will enhance our ability to have service user feedback, such as comments left on the NHS Choices website, as well as a host of written reports and reviews feed into the outcome risk estimates.

**Conclusion**

We have been able to develop a tool which processes millions of data items each month and helps support the risk-based approach to regulation operated by the CQC. It is important to note that risk estimates are just that. While the data can suggest there is a high chance of outcomes not being met, they may well be. Conversely a low risk estimate is no guarantee of acceptable performance, especially in the health and social care environment, where standards can degrade rapidly and the consequences can be so severe. It is the inspector on the ground that will therefore make the judgement as to whether or not an organization is compliant with the essential standards of quality and safety.

The QRP is a tool which is constantly evolving and will always be limited by the data that is available for it to report on. However, it is proving a vital tool for an essential job and has the potential to determine risk in an array of environments, not just health and social care.

**Reference**


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S

ecuring value for money has arguably never been more important than now for many governments around the world. The scale of the current economic troubles has led them to focus on public sector spending. Public bodies are under considerable pressure in the form of reductions in employment, cutbacks in programme spending, repeated efficiency savings programmes, efforts to reduce regulation, and increased attention to securing benefits from ICT, process re-engineering, mergers, shared services, and market-type mechanisms.

The political and economic importance of these efforts increases the potential value of the work of those assessing and reporting on how resources are used. In UK central government, this role is played by the National Audit Office. The NAO produces value for money (VFM) reports on government spending that are used for hearings of Parliament’s Committee of Public Accounts. Similar organizations – “state audit institutions” (SAIs) – exist in pretty much every country, issuing reports that are used by governments and parliaments in different ways.

Whilst individual NAO reports gain considerable media coverage and help drive change in government, the place of VFM audit in the spectrum of regulation and scrutiny activity has received relatively limited examination. As a result, changes in practice tend to go unnoticed. For example, as a practitioner I recognize that recent NAO reports are:

- more explicit in concluding on whether value for money has been achieved;
- more focused on what we consider the key drivers of effective performance – financial management, sound information for decision making, and effective programme and project management;
- produced to tighter timescales than in the past.

Such changes – largely invisible to all but the closest “NAO-watchers” – are another reminder that VFM audit, elsewhere referred to as performance audit, is a fluid and evolving evaluative activity. This is the theme of a new book, Performance auditing: contributing to accountability in democratic government (Lonsdale et al. 2011), the first for a decade to step back and analyse developments in performance auditing in a number of countries. The book looks at the conduct of performance audit – including the selection of studies and methods, the criteria against which judgements are made, and quality assurance – but also examines the evidence of the contribution of audit work.

The authors develop the following definition: “Performance auditing is an evaluative activity which produces assessments regarding performance or information about performance, of such a reliable degree and with such a freedom from investigatory examination; – auditors must be able to substantiate what they say; analytical – it is not just evidence gathering, auditors must be able to derive meaning from their examination; resource focused – on choices in the use of public funds; evaluative – a judgement of performance and not just a statement of fact; prescriptive – auditors should in general conclude and make recommendations; and purposeful – supporting accountability arrangements and seeking to stimulate change.”

The book highlights a number of trends. In the past decade, there has been a growth in the scale and intensity of performance audit in many countries and, as part of wider administrative reforms, an expansion into some developing countries where it was previously not undertaken. It has taken on distinctive forms in different settings, shaped amongst other things by: the weight SAIs attach to the influence of different stakeholders, especially legislatures; the skills and disciplines of those involved; and the varying regulations within different jurisdictions. There has been a broadening of methods and approaches employed, the pursuit of higher quality standards to ensure credibility, and greater engagement of performance auditors with the outside world as they have increasingly endeavoured to learn from other disciplines. Finally, we have seen greater ambition, as auditors have sought – and been expected – to report on more complex issues, for example around private finance, partnership working, or support for the banks.

A key message is that the primary focus of performance audit is on accountability; learning and performance improvement are important, but nevertheless secondary, objectives. It is the accountability function that provides the status and standing for the audit reports, engages representatives from government and parliaments in a very distinctive way, and also creates particular opportunities for learning, even where it may also cause tensions and resistance. Immediate lessons are offered directly to the auditee from the scrutiny, debate, and exposure of data. But performance audit is also an opportunity to contribute more widely to decision making and political life because of the flow of a particular type of information through official and professional communities and the media. However, the authors argue, learning from performance audit takes place only because it has been generated out of the accountability function and is not secured in its own right. If well managed, the secondary learning function will be amplified and strengthened by the primary accountability role.

The debate about the proliferation of audit (Lapsley and Lonsdale 2010; Power 1997), which started in the 1990s, has helped to focus attention on the costs and benefits of such work. A key section of our book explores the relatively limited evidence available on the impact of performance audit. It

“…the primary focus of performance audit is on accountability; learning and performance improvement are important, but nevertheless secondary, objectives.”
suggests, perhaps not unexpectedly, a mixed picture – impact can often be “slow and subtle”, at times quick and explicit, and sometimes hardly noticeable. Much impact is instrumental, rather than conceptual, whilst some can be slow to materialize but do so in complex ways. Being aware of the risk of potential adverse impacts of audit and mitigating them where they arise is also important. Although there is an argument that the current literature does not amount to much more than a form of risk analysis, there is no doubt that auditors need to be aware of these potential risks of, for example, discouraging innovation and encouraging gaming and resistance.

Understanding of why some audits are more successful than others seems limited. Yet certain factors appear influential: the relationship between auditors and auditees, the timeliness and relevance of the results, the influence of third parties such as parliaments and the media, the evaluation culture in the audited body, and the coincidental timing of other audit and reform projects. We also suggest that certain characteristics of SAIs mean they can make a unique contribution to performance improvement. For example:

- They have very detailed insider knowledge about the use of resources, an aspect of evaluation which is often weak or avoided altogether. This allows them to bring together an understanding of performance with an assessment of the resources needed to secure that performance.
- They have a complex understanding of the worlds in which they operate, but also aspire to make their work easily understood, a feature in contrast to much research and evaluation, which can be characterized as “professionals talking to each other”.
- They can offer a uniquely cross-government perspective, ranging over many issues and organizations. This is in contrast to many research groups and think tanks, which are more narrowly focused.
- They are well versed in analysing policy failures, and they can often do so faster than other experts and more independently than in-house scrutiny. This is particularly important when there is a reluctance to own up to problems in government, or conversely, when in the media there is a tendency to dramatize every weakness.

But there are times when SAIs are less likely to be successful, for instance where the evidence base is weak, making it hard or impossible to form a judgement, or where they are expected to answer general or political questions.

The theme of how performance audit contributes to democratic accountability includes the contentious relationship with trust. From one perspective, performance audit reports which regularly identify deficiencies and failures seem likely to weaken trust in our public institutions, creating the impression of incompetence. On the other hand, performance audit reports, in placing information in the public domain, can help increase trust (or show where it is misplaced). They provide information and analysis independent of government, and the existence of the function gives general assurance that someone is keeping an eye on how public money is spent. Trust depends on our view of public servants, but our trust should be enhanced by knowing what organizations are doing and by knowing that scrutiny of them has been conducted independently.

And what of the future? We have clearly moved on from a long period of incremental growth (and occasionally incremental contraction) of the public sector, associated with new programmes and delivery mechanisms. Much of the focus for scrutineers in the past was on efficiency gains and recommending refinements, rather than on major changes. We have now entered a more turbulent time, characterized by retrenchment and reform, which raises the question of how scrutiny functions should respond.

The book suggests that in order to ensure relevance in the current climate, performance auditors must:
- stick to their core activities and not be distracted, and so be a unique source of evidence and judgement around resource use;
- improve the theory and practice of performance audit in the light of emerging intellectual and methodological developments to maintain credibility;
- develop the ability to assess and measure their impact and influence;
- tackle the downsides associated with audit, such as gaming;
- improve their role in respect of learning and continue to develop their responsiveness including through new forms of reporting and working;
- exploit their position in the interests of informed deliberation and democratic decision making, for example by focusing on subjects which cut across government, asking inconvenient questions, and championing transparency.

References


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S\noe events are of such magnitude and human impact that they escape both the cool rationality of academic reflection and also mainstream management and regulatory practice. Indeed, the scale of destruction and loss of life from the tsunami which followed the Japanese earthquake in March 2011 were such that books and ideas matter very much less than concrete help and support. And while Japan’s problems may no longer be the front page story in Western Europe, we all know that the many years of reconstruction in the most affected regions have only just begun.

Yet a time for reflection, analysis, and enquiry must surely come, and with it an evaluation of safety and resilience measures – not least at nuclear energy facilities. The containment of danger at the Fukushima complex may yet provide a very limited success story, but the subsequent debate about nuclear energy strategy and regulation is now a global one. Old political and cultural divisions on nuclear power are re-opened.

Organized Uncertainty was written and published before the 2008 financial crisis. It analyses the emergence of the ideas and practices of enterprise risk management (ERM) in the period since 1995. It is no coincidence that this period has been described as a high point of neoliberal thinking and policy. The collapse of communism left the intellectual high ground not just to capitalism, but to the authority of financial markets. Governments became confident that they had conquered inflation through a combination of structural change – independent central banks and regulatory authorities – and the eradication of drivers of wage inflation, such as union power. Even the difficulties of the early 2000s seemed easily solved by lowering interest rates. The ideological victory of the market over planning provided the intellectual climate within which ERM rose to prominence, not only as a private practice but also as a model for regulation and government. Indeed, the ERM promise of top-down control of the enterprise as a whole is effectively a philosophical substitute for the idea of the controlling state. And just as public sector reformers in many countries were seeking to join up welfare services for efficiency gains, so too were insurers and other risk managers trying to join up the different bits of the organizational world in the name of ERM. From this point of view, the period from 1995 to 2007 might even be described as an age of integration, or at least dreams of integration.

Despite the historical association of risk with negative events, the proponents of ERM in consulting firms and regulatory bodies were eager to emphasize the necessity of risk-taking for a vibrant society and economy. ERM was widely articulated as being about “upside” as much as “downside”. Risk management controls were positioned as being subservient to strategy and entrepreneurialism. However, the experienced reality was different from these aspirations. A new term came into existence – “risk bureaucracy” – and there was a growth in what came to be commonly called “box-ticking”.

The explanation for this growth of due process around ERM despite its supporters’ best intentions is institutional rather than functional. It was not so much that the world had become riskier, although there are some arguments which support this. Rather, risk management and ERM came to occupy a central position in the corporate governance explosion and provided a form of organizational account-giving, an alternative perhaps to financial accounting. In large part, the diffusion of ERM is also more of a supply-side than a demand-side story – the product of the accounting, insurance, and finance professions’ search for new advisory products and services.

Organized Uncertainty certainly did not predict the financial crisis. And it did not at all anticipate the magnitude of disruption as the combined result of agency problems and excessive risk-taking based on unquestioned assumptions about asset markets. Yet it does provide two arguments which in retrospect are pertinent.

The first argument suggests that the density of compliance-based realizations of ERM generated an “illusion of control” which was reinforced by an industry of risk management guidance and standards. The result was a form of risk management which was highly precautionary in one important respect: organizations and their members were concerned above all to avoid blame by complying with and amplifying the requirements of risk management principles. Yet this blame-precaution was also reckless. It led to a convergence of risk management systems and thinking. This, in turn, led to a loss of diversity in risk management behaviour – itself an enormous risk.

The second argument points to another feature of the illusion of control implicit in the very design and conception of ERM: the predominant entity or enterprise focus. Implicitly, ERM assumed that making individual financial entities safe amounted to system safety and resilience. This is the fallacy of individualism in risk management. While the prudential management of individual banks was far from perfect, it also tended to “crowd out” attention to interbank linkages and interdependencies, whose density had increased over the years. Perhaps no one could have predicted the freezing of interbank lending in 2008 – even those who identified it as a risk regarded it as a remote possibility. However, ERM inhibited system-level knowledge by emphasizing the enterprise level. Accounting and ERM were highly developed at the entity-level, but interconnectivity remained dangerously obscure until the point at which hidden risks crystallized. Interestingly, ERM has no purchase whatsoever on the crisis of sovereign risk management...
intensification of demands that such organizations contract between banks and society, there is an emphasis on risk oversight. And in place of a new social up the large banks, there is a renewed emphasis rather than special taxes or proposals to break as poor management and governance. so, the main cause of the crisis has been identified intensified form of business as usual. In the UK, which have more to do with a new mode of entity accountability than with a change in the risk profile of the activity in question. Thus, surgical procedures, school trips, railway travel, and many other areas acquired a risk management dimension with new protocols and formalizations. Uncertainties which previously had been addressed more or less explicitly by local experts were now being organized into an abstract form of risk management whose underlying role was to hold specific entities and their leaders to account.

Since the financial crisis, two trends seem to be visible. The first trend is a return to a more intensified form of business as usual. In the UK, the main cause of the crisis has been identified as ‘poor management’ and governance. So, rather than special taxes or proposals to break up the large banks, there is a renewed emphasis on risk oversight. And in place of a new social contract between banks and society, there is an intensification of demands that such organizations get clearer about their risk appetite. The emergence of risk appetite as a key regulatory focus in the post-crisis world is remarkable because the question whose risk appetite is relevant has been lost from view, even though the ultimate bearers of risk have not been financial institutions but the general public, whose appetite remains voiceless. Somehow, risk appetite has maintained its depoliticized position as part of the ERM mindset, rather than as part of a wider public policy debate.

The second trend has been a growth of interest in resilience – a shift in the register of risk management thinking from the anticipatory and mitigating logic of ERM to that of the ability to bounce back from shocks. In finance, this has led to a greater focus on liquidity and the quality of solvency assets, but the phenomenon is much wider, traceable in part to the disaster which befell New Orleans after Hurricane Katrina and now given a new impetus after the terrible events in Japan. Yet while this resilience discourse is increasingly visible, it is also confusing. Key questions revolve on whose resilience matters and at what level – individual psychology, firms’ business models, urban sustainability, or regional infrastructure? As the experience of Japan has shown the world, all critical regional systems – finance, health, energy, water, and transport – can quickly become interconnected in a disaster. The sovereign debt crisis reminds us how a lack of resilience can be transnational.

Resilience poses enormous technical and political challenges because societies continue to organize on functionally and nationally differentiated lines, which works well enough most of the time. Yet Organized Uncertainty suggests we should be very wary of a reformed ERM. Disasters show us that ERM has no intellectual content of its own. ERM helps to define the working framework of controllers, auditors, and accountants who exercise oversight, but it has nothing of its own to say about the real work of resilience. Organized Uncertainty leaves many questions unanswered. I am very conscious of its flaws. For example, it does not address detailed matters at the organizational level. Clearly, the expansion of the ERM model has been applied and implemented differently by different organizations; many studies demonstrate the path dependency of ERM. In addition, it suggests, without properly addressing, the role of ERM in the public sector and the strength of its wider diffusion at the transnational level. Yet I hope that despite these difficulties the book does point to an important issue: in many countries, a great deal of time, effort, and skill has been focused on the wrong things at the expense of more challenging issues. ERM has become manifested in a widely diffused logic of risk registers and risk maps whose simplistic designs necessarily obscure complex issues of interconnectivity. One can only conclude that individuals, firms, regulators, and societies prefer technocratic illusions of risk control to more intelligent encounters with genuine uncertainty. If so, we will continue to be surprised by the failure of our costly efforts to organize uncertainty.

This essay is an adapted version of the preface to the Japanese edition of the author’s book Organized Uncertainty: designing a world of risk management, translated by Shinji Horiguchi and published in 2011 by Chuo-Keizai.

Mike Power is Director of CARR.
Margaret Woods discusses lessons from the UK’s top organizations on integrating risk and performance management.

The big problem(s)
Risk management has not had a good press in recent years. Academics, risk practitioners, and media commentators have all argued that the financial crisis revealed the weaknesses of heavy dependence upon quantitative risk models focused on regulatory compliance rather than overall risk management. The models, built around probability measures based on assumptions of normal distributions of events, did not work in the crisis and were not complemented by reflective qualitative judgements on potential risks.

Nonetheless, the risk management profession continues to grow, fuelled by an ever expanding array of governance, risk reporting, and risk regulation. The guidance and regulations vary in their breadth of potential coverage, from global, eg ISO 31000, or semi-global (Basel Accords on banking), to regional (European Corporate Governance Forum) and national (UK Combined Code). Additionally, the regulations vary in nature, from “hard” regulation via statute-regulation to “soft” self-regulation.

Two questions emerge from the growth of all of this guidance, regulation, and professionalization. Firstly, what is risk management and does it need to be professionalized? Secondly, is it possible to design a workable risk management system that helps any type of organization to better achieve its objectives? This article aims to use material drawn from a research study of major UK organizations to suggest solutions to these questions.

From risk to risk management
In ISO 31000 (2009), risk is defined as “the effect of uncertainty on objectives”. This assumes an organization has a clear statement of its own objectives and recognizes that uncertainty has both positive and negative dimensions. Risk management is about establishing systems and controls to manage both upside and downside risks. The research study, detailed in Woods (2011), reveals, however, that systems and controls are just part of the story; corporate culture also plays an important role in affecting the extent to which staff at all levels understand both the corporate objectives and the risks posed to them by their own actions.

The risk management standard ISO 31000 (2009) has now been adopted across the globe. The standard builds on the world’s first standard, AS/NSZ 4360 (1995), but reflects the change in thinking that has occurred over the intervening years, particularly the case for embedding a risk management framework within an organization. The UK guidelines on implementing ISO 31000 recommend a framework of Enterprise Risk Management (ERM). The COSO (2004) Enterprise Risk management: integrated framework defines ERM as: “a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives”.

COSO (2004) also defines four categories of organizational objectives:
- strategic – high level goals, eg market share;
- operations – efficient use of physical and human resources;
- reporting – reliability in reporting to stakeholders;
- compliance – with laws and regulations.

Enterprise Risk Management is about meeting different levels of organizational objectives and ensuring that an understanding of risk applies not just in compliance but at all levels of management and operations. This is a big challenge.

In its annual report, the retail giant Tesco states its philosophy as being about creating value for customers to earn their lifetime loyalty. Improving the customer experience lies at the heart of the business model. The customer focused risk control system takes the view that “we all have a role to play”. At all levels, there is an expectation that staff will be aware of what could possibly go wrong. The culture is one in which risk is defined and debated purely in terms of performance against objectives, and the core objective is serving the customer. In stores, this means a shelf filler needs to understand that if, say, the bread is not replenished regularly, then customers will be unable to make their desired purchases. The resulting lost sales and reduced customer loyalty could potentially lead to cumulative missed profit targets right up to global levels within Tesco. Performance and risk are closely intertwined.

The systems within Tesco suggest that risk management does not have to be professionalized: “One of the reasons we are a successful company is because of risk management – people do it without actually knowing they are doing it, it’s part of their accountabilities. They are held to account. We monitor things on such a micro level” (interviewee). All staff are responsible for risk management via the use of a balanced scorecard which cascades risk management procedures tied to performance targets down through the group to store level. Risk management is implicit within performance management in Tesco; it is not simply another layer of bureaucracy.

In contrast, the Royal Bank of Scotland case study revealed the risk management system to be silo based, employing specialist staff. RBS
seemed to fail to link the silos of credit, liquidity, insurance, compliance, and operational risks, whilst also retaining a distance between strategy and operations. Admittedly, banking is a much more complex business to manage than Tesco, and much more tightly regulated, but it would seem that banks struggle to manage the seemingly conflicting objectives of compliance with Basel banking regulations whilst simultaneously generating profits that match market expectations.

The danger of this, as proven in the crisis, is that Board members are not fully aware of the nature and scale of operational risks being taken, whilst operational staff are simultaneously unaware of how their actions may directly contribute to risk exposures at group level. Risk needs to be linked directly to performance throughout an organization.

**Integrating risk and performance management at all levels of an organization**

There are parallels between performance management and risk management. Both are:

- designed to ensure achievement of corporate objectives;
- organization wide;
- designed to recognize organizational interdependencies;
- the operational responsibility of line management.

Two of the case studies, of Tesco and Birmingham City Council, revealed the potential to formalize links between performance and risk management. Both cases illustrate how clear and simple statements of the organization’s strategic focus can be complemented by detail on how it will deliver its commitments and measure success. In Tesco, a balanced scorecard is used for this process. Individual scorecards for each business area are cascaded down from corporate level through divisional and business units to individual line managers. At each level, the scorecards are underpinned by plans linking strategic objectives to targeted outcomes. The scorecards may be complemented by strategy diagrams or maps detailing the plans and actions required to deliver the relevant performance targets. The strategic maps can be complemented by risk maps that identify the key threats to successful delivery at each level of the organization.

This approach ensures ownership of targets whilst linking them to the strategic plan. Recording the targets allocated to individuals in the performance database also provides an audit pathway for each performance indicator. The same principle of cascading down responsibility can also be applied to risk management.

In Birmingham City Council, linking strategies to operations works through the specification of service level objectives and performance targets linked into the personal development plans for all staff. Corporate targets are tied into action plans detailing how activities contribute to strategies. The performance plans also link into risk maps. For example, the creation of Directorate level risk maps is complemented by the specification of “owners” of risks, which is also integrated into the performance management system.

Tesco and Birmingham City Council thus illustrate the scope for risk management and performance management to become fully integrated systems as illustrated in Figure 1. This shows that at all organizational levels, from corporate down to the individual, objectives can be linked to both performance targets and risk maps. Linking the performance targets to risk maps minimizes the danger that performance is achieved by risk taking that exceeds the organizational risk appetite.

**Enterprise Risk Management integrates the three dimensions of objectives, structure, and risk management controls.** In Tesco, the Head of International Audit argued that “accountability for managing risk lies clearly with line managers”. The risk management system is implicit rather than explicit. In contrast, in RBS the culture is one that appears unwilling to pass responsibility for risk down the organization in this way. The highly centralized function assumes expertise, performance is measured in terms of profit and rewarded accordingly, and risk and performance may be severely out of line. Additionally, the silo based formal structures for risk management, which reflect the regulatory reporting systems, indicate that compliance, rather than performance, is the focus for the risk function. As a result, a massive and discrete risk management bureaucracy failed to identify, communicate, and/or mitigate the effect of both localized and aggregate risks in the bank. Ticking the compliance boxes was not enough.

It would seem that there really is scope for organizations to develop risk management systems that help them better achieve their objectives. But the research also suggests the risk management structure must be complemented by a culture that embeds risk thinking into staff behaviour at all levels of the organization – especially into day-to-day operations – by tying their individual performance to directly related risk targets. On this basis, true Enterprise Risk Management is far from easy to implement; it is a really major challenge.

**References**


![Figure 1: Integrating risk and performance management systems.](Image)
Research on Integrated Risk and Performance Management: 
THE TIME IS NOW, BUT HOW?

Tommaso Palermo discusses reasons for being suspicious of current illustrations of integrated risk and performance management and suggests alternative approaches to the study of “integration”.

Organizations rely on enterprise-wide systems for setting objectives and measuring performance against these objectives. Organizations can also have systems for capturing a range of risks that might impact on the achievement of the very same objectives. Then why not integrate the two?

This question is central to a growing body of work. An active consultancy and advisory industry, in particular, provides illustrations of integrated solutions that should help organizations achieve better performance. As PricewaterhouseCoopers (2009: 3) put it, repeated corporate failures and scandals suggest that “the time to link risk and corporate performance management is now”. But what is integrated risk and performance management? And how can researchers study “integration”?

Two “traps”

This essay provides two reasons for being suspicious of current illustrations of integrated risk and performance management. First, there is a “jargon trap”. A quick web search for integrated solutions for risk and performance management would put in evidence papers on “linking risk and performance”, “aligning risk and performance”, and “integrating risk and performance”. These terms – linking, aligning, but also connecting, incorporating, etc – are often used as straightforward synonyms of integration. But is this always legitimate? Alignment, for instance, conveys an idea of proximity – literally of something getting lined up – that is not necessarily one of integration: Is it people that get close to each other? Is there some kind of isomorphism of processes? The practice literature, in turn, suggests that the different assumptions and situations evoked by different terms are likely to go unaddressed. The question is whether reliance on a loose terminology loaded with a long history of practitioner use might impede researchers understanding of “integration” and its variations. This is more than a simple matter of terminology. Influential studies in accounting (eg Davis et al. 1982) show how the use of terms that evoke specific images and sets of assumptions influence what is seen and studied; and, as noted more than four and a half decades ago, “a way of seeing is also a way of not seeing” (Poggi 1965: 284).

Second, there is a “procedural trap”. Enacting risk management implies some sort of tacit knowledge that cannot be easily expressed discursively. Researchers engaged in field work in recent years have probably often heard that risk management “is more an art than a science”. But extant work (eg Power 2009) also reveals that enterprise-wide risk management efforts follow a logic of auditability and defensiveness that leads organizations to focus attention on the production of documentation which protects them from external critique. The “risk” for a risk researcher – not unlike the risk for independent directors responsible for risk oversight – is to fall into the “trap” of “dumb” questions: questions that concentrate on visible evidence of formal procedures but fail to get at the realities of practice (Power 2011). Informants in organizations may feel confident that “dumb” questions are rather safe. They allow them to say something about formal structures and procedures around risk management. Yet it can be doubted that such responses allow researchers to ascertain the realities of risk and performance management “integration”.

An alternative view on “integration”

Ask yourself if your working environment is integrated. You might think of a range of elements: shared procedures and reporting lines; coordinating roles; meeting periodicity; task and goal affinity; physical proximity; even friendship and mutual respect. This simple thought experiment reinforces the idea that studying “integration” is not easy. It is, perhaps above all, a matter of understanding what one is looking at. But what one is looking at, especially in risk management research, is constrained by the two “traps” described above. It is easy and quite safe to rely on loose terminology and concentrate on formal procedures. Bearing in mind these limitations, two elements might help a better understanding of risk and performance management “integration”.

The first element relates to a varied analytical language. As mentioned above, the “jargon trap” suggests that different terms (eg integration, alignment, linking) tend to be used interchangeably in the literature, even though they evoke different situations and assumptions. The task would be to develop a language which allows us to do justice to this diversity by capturing different types of relationships – from close proximity to virtually total separation. Such a terminology can stimulate several different ways of looking at “integration”. It potentially provides a means to explore existing practices in detail and to shed light upon the multi-faceted nature of the phenomenon under investigation. A plausible conjecture is that risk and performance management are related in different ways in organizations depending on their scale, profile, and background. Moreover, different relations between risk and performance management can coexist in different parts of the same organization. A rich terminology, which draws on distinct categories of “integration”, can help observe and analyse this diversity and its evolution over time. For instance, a first category of integration might evoke notions of fusion and blending, ie the idea of making an undifferentiated whole (“integrated risk and performance management”) from different parts (risk management and performance management). A second category can be based on the notion of complementarity. Risk management elements (eg risk identification and assessment) constitute a complement of, and support for, performance management processes and techniques (eg budgeting and control practices) or vice versa. A third category can focus on formal procedures and alignment. The object of inquiry would be the creation of formal arrangements that help line up risk and performance management, fostering proximity through coordinating roles, joint deadlines and milestones, use of common inputs, and shared management information platforms.

The second element is a focus on the micro-organizational level. As mentioned above, the “procedural” trap suggests that the logic of auditability that permeates enterprise-wide risk management is likely to produce evidence of visible formal structures and procedures. However, in certain parts of an organization “integration” is likely to be driven by the specificities of an area’s function and activities. In the area of Health & Safety (H&S), “…focused investigations of indicators that alert managers and boards to problematic issues and trigger actions tend to be concrete and elicit specific examples, thus contributing to an opening up of the ‘integration’ black box.”
for instance, organizations are likely to record the number and the types of operational incidents, or near misses, which have occurred in a given period. Periodic reviews of this evidence can be considered a form of performance management but also a quantified risk assessment based on real evidence. The question, therefore, is: How does managing performance differ from managing risks in an area such as H&S? To address this question it is necessary to devise a research strategy for looking at what kinds of management information people use and what this information tells them about risks. Regardless of functional specificity (e.g., H&S, project management, IT), the key task is to understand how management information, crystallized in risk (or performance?) indicators, captures drivers of future conditions and thereby provides early-warning capacity. In contrast to research strategies that point at formal, enterprise-wide structures around risk management, focused investigations of indicators that alert managers and boards to problematic issues and trigger actions tend to be concrete and elicit specific examples, thus contributing to an opening up of the “integration” black box. The narrow focus of such a research strategy is not a weakness. Quite the contrary, it can be an informative point of entry for an outsider, showing how a business thinks about risk and deals with it. The way in which researchers’ questions get answered (or not answered?) can disclose a great deal about how risk management really works in organizations.

In closing, repeated waves of corporate failures and scandals suggest that “now is the time” to study risk and performance management “integration”. This essay has discussed the “how”. The use of loose terminology and a narrow focus on procedural aspects inhibit researchers’ critical scrutiny of “integration”. These matters are not only methodological: they have a direct impact on the substance of what one is able to observe and analyse. Awareness of these pitfalls can help research and practice to reach a better understanding of how risk and performance management are related. Moreover, two strategies – development of a varied analytical language and focus on the micro-organizational level – may help avoid confusing formal “integration” aspirations with reality.

References

Tommaso Palermo is LSE Fellow in the Department of Accounting at LSE. This essay benefited from discussions held within CARR’s “Risk Indicators” Discussion Group.
CONSTRUCTING STAKEHOLDERS

Matthias Benzer summarizes the themes, questions, and problems raised in a recent workshop on organizing participation.

During the 10th Nordic Environmental Social Science Conference, held between 14 and 16 June at the University of Stockholm, 15 social scientists and practitioners from the United Kingdom, several Nordic countries, France, Austria, Poland, and Australia met for six intensive discussion sessions in the workshop Constructing Stakeholders: Organizing, Categorizing, and Mobilizing the Legitimate Participants, Prepared and chaired by CARR Research Associate Rita Samiolo and Linda Soneryd from the Stockholm Centre for Organizational Research (Score), the workshop continued the two research units’ collaboration.

Without denying the gravitas of insights into the impact of individuals’ economic circumstances and political resources on their ability to shape social decision-making processes, the chariadies sought to stimulate discussions on aspects of contemporary approaches to organizing participation which have received less scholarly attention. In particular, the debates were supposed to bring into focus the wider culture and power dimensions of conceptual frameworks and technologies activated for categorizing and engaging stakeholders: of modes of identifying stakeholders, techniques for negotiating between their interests and strengths, and instruments for involving wider publics. The organizers stressed the importance of examining the roles that classifications and other tools for arranging participation play in constructing legitimate political subjectivities emerged as a core theme of the workshop. Jonathan Metzger called to task the notion that strategic spatial planning merely involves discovering extant interests or stakes in a place and, where these have remained unconscious, raising stakeholders’ awareness of their “stakeholderiness”. Planning, he contended, contributes to producing the very subject position of the stakeholder in relation to an ordering fix-point: planning can foster an agent’s learning to be affected, their attachment to particular articulations of space, and their caring for a place’s fate. Elsa Reimerson also raised the question of subject positions, albeit in a different context. Drawing on postcolonial and discourse theory, she interrogated the international discourse on nature conservation as it is manifested by the United Nations Convention on Biological Diversity.

Reimerson sketched the stakeholder positions this discourse assigns to indigenous actors – eg as holders of traditional knowledge relevant to managing biological diversity – and inquired into the potential implications of those positions for their political influence.

The political implications of stakeholder positions were also at issue in Lennart Lundqvist’s contribution. The Swedish state, he argued, is increasingly responsibilizing not only producers and local governments, but also consumers in their daily lives, for preventing future environmental harm. However, producers’ and local governments’ participation in strategic policy making for sustainable development far outweighs that of consumers. In contrast to consumers’ largely moral obligations, producers’ and local governments’ legal and economic responsibilities might well generate greater urgency to get involved. But consumer organizations also seem to have fewer resources to utilize the opportunity to participate. In their case studies of Finnish forest and water management, Minna Kaljonen and her colleagues paid closer attention to the construction of spaces. They highlighted the importance of framing and assessing natural resources and of enlisting and arranging regional stakeholders in natural resource management for the constitution and enactment of regions as “qualifiable” entities for planning activity.
activities qualify for related subsidies. Bergeå found these encounters to restrain farmers’ initiatives. Despite farmers’ explicit interest, advisors seldom articulate new ideas, limiting their input to assessing farmers’ suggestions. When farmers propose initiatives, however, advisors resort to realism and question their feasibility, effect discursive closure on potentially innovative considerations, and even laugh ideas off.

Theory and practice: inclusion and exclusion

Two further questions arising in this context are whether plans and instructions for involving stakeholders are followed in practice and which mechanisms of inclusion and exclusion that entails. Kristina Tamm Hallström investigated to what extent large Swedish forest companies comply with those of the Forestry Stewardship Council’s management standards that champion dialogues on social and environmental issues with external stakeholders. She found most forest companies to engage stakeholders reactively; external parties are usually consulted for decision making only in response to formal complaints or critical incidents. Together with her colleagues, Małgorzata Grzędzińska-Jurczak conducted a detailed examination – combining interviews and participant observations – of public consultations during the designation of Polish Natura 2000 protected sites. Given the country’s tradition of centralizing responsibilities, the authors counted the very attempt to hold such meetings as a step towards greater community engagement in environmental management. Plus, the meetings fulfilled some preconceived objectives at least partly, eg transmitting information and offering participants fora for expressing opinions and emotions. Among the consultations’ major shortcomings were the failure to involve an adequately broad spectrum of relevant stakeholders and the exclusion of most participants from decision making. Tapio Litmanen and his colleagues examined how different stakeholder groups conceptualize the socio-technical challenges connected to nuclear waste management. They warned against entrusting the techno-scientific community alone with demarcating the technical and social dimensions of this problem and against relying on too rigid a distinction between the two domains: de facto socio-technical issues might be narrowly defined as purely technical and other stakeholders prevented from debating them in their wider social context.

Renita Thedvall invited the workshop attendants to think about such themes in more abstract terms. Organization and stakeholder theory, she argued, generally distinguish between members and stakeholders: eg the former are often conceived as insiders, the latter as outsiders of organizations, and the two groups are frequently ascribed different levels of obligation. Collapsing this distinction in practice can have far-reaching political consequences. For example, if “stakeholders” becomes synonymous with “members”, non-members that may be considered stakeholders by virtue of being affected by an organization’s decisions are nonetheless barred from participating in stakeholder consultations on those decisions.

Greg Brown discussed the possibilities and limitations of Public Participation Geographic Information Systems (PPGIS), a tool for involving the general public, rather than exclusively traditional stakeholders and interest groups, in governments’ environmental planning and natural resource management. For instance, PPGIS are used for collecting the public’s views on the locations of aesthetic, economic, spiritual, and other landscape values and for ascertaining the consistency of governmental plans with those views. Yet for several reasons – including distrust in the public’s political potential, lack of experience with public participation techniques, and formal barriers – government agencies, environmental actors such as NGOs, and industry stakeholders remain reluctant to utilize PPGIS. Patrick Scherhauber scrutinized the congruence between the theory and practices of stakeholder involvement in climate change vulnerability assessments. He identified deficits in the normative, instrumental, and substantive dimensions of participation. Regarding the normative domain, for example, problems with securing participation over time and with stakeholder representation can put pressure on a project’s input legitimacy. Similar issues also surface at the international level. Céline Granjou accentuated that the Intergovernmental Platform on Biodiversity and Ecosystem Services, currently in statu nascendi, was conceived as a forum for dialogues between authoritative scientific knowledge and diverse local non-scientific forms of environmental expertise. In reality, it seems, the platform will be reserved for interdisciplinary, pluralistic science, and thus for academic scholars; non-scientific knowledge holders, in turn, will be offered academic research capacity building.

The workshop contributions and debates suggested that neither classifications of stakeholders and wider publics nor instruments for involving them in decision-making processes can simply be framed as means to furnish such processes with a more inclusive knowledge and value base. Participation tools and procedures are themselves culturally determined, and their political implications can contradict their explicit aims. Analyses of those determinations and these implications are indispensable to an adequate understanding of the social mechanism broadly – but perhaps still too narrowly – described as stakeholder engagement.
CARR Discussion Groups

As announced in the previous issue of Risk & Regulation, CARR has created a third discussion group in addition to “Failure and Resilience” and “Risk Indicators”. The new group explores the CARR theme Regulation and Markets through the specific qualities of face-to-face financial advice and “small finance” (see Zsuzsanna Vargha’s article in this issue). The relations between risk, self, and organization constitute one area of discussion. Guiding questions include: How do the techniques of the financial planning process shape clients’ “risk preferences”? How did professional finance’s strategies scale down for mimicry by small investors? The group meets once per term with a core membership, but meetings are open to all CARR staff.

CARR News

Mike Power has been made an Honorary Fellow of the Institute of Risk Management. He presented the paper “Organizations and audit trails” at ESSEC, Paris (April), and HEC, Montreal (May).

In June, Matthias Benzer presented his paper “Quality of life conceptions in UK health regulation: a neoliberal approach to governing?” at the Nordic Environmental Social Science conference in Stockholm. Julien Etienne and Gerhard Schnyder (King’s College London) gave their paper “Historical institutionalism and the theory of goal-oriented action: towards a behavioural foundation for institutionalism” at the SASE Annual Conference in Madrid. In July, Julien gave the talk “Understanding the behaviour of regulated individuals and organisations” as part of the Certificate in International Regulatory Affairs at London’s Centre for Parliamentary Studies.

Martin Lodge and CARR Research Associate Nick Sitter organized the workshop Future of the Regulatory State, which was held in September at Oslo’s BI Norwegian Business School. Papers considered the development of the idea of the regulatory state and its performance in diverse settings and country contexts. Speakers included CARR Research Associates Anneliese Dodds (Aston University), who presented co-authored work on regulation in the contested jurisdiction of Kosovo, and Kai Wegrich (Hertie School of Governance), who discussed public transport regulation.

In April and May, Bridget Hutter and CARR Research Associate Sally Lloyd-Bostock (LSE) held the Residency at the Rockefeller Foundation Bellagio Center to work on the project “Risk regulation and crisis.” In the summer, Bridget gave a presentation on regulatory enforcement at the Co-Reach Conference on Regulatory Enforcement in China and Europe, Institute of Law, Chinese Academy of Social Sciences. As a Visitor in Melbourne University’s Sociology Department, she participated in the public seminar and panel discussion “Regulating risk in an uncertain world” and delivered the public lecture “Social science perspectives on risk regulation”. Bridget gave the seminar presentation “A perspective on risk regulation” at the Centre for Regulatory Studies, Monash University, as well as a seminar in the Climate and Environmental Governance Network series as a Visitor at RegNet, Australian National University.

CARR Research Associate Carl Macrae has been awarded the British Psychological Society’s Qualitative Methods in Psychology Early Career Scholar Award for his paper “Making risks visible: identifying and interpreting threats to airline flight safety” (Journal of Occupational and Organizational Psychology 82(2): 273-93). Focusing on aviation safety, the paper examines how experts identify early signs of potential risks. It forms part of Carl’s output in CARR from 2006-2008.

In September, CARR staff attended a workshop organized by the European Risk Network Research and hosted by London’s Institute of Risk Management. Around 25 people met to debate the latest findings across different risk management contexts. Wim Van der Stede (LSE) discussed the challenges of effective risk and governance reporting. Tommaso Palermo (LSE), Philip Linsley (University of York), and Philip Shrives (Northumbria University) reviewed the state of play in three areas of research: risk and performance, risk and culture, and risk reporting.

CARR Seminars 2011

14 June 2011
Dr Vibeke Lehmann Nielsen
Aarhus University
Business Compliance – Motivation and Capacity: Lessons from an Australian Research Project
22 November 2011
Dr Ian Brown
Oxford University
Regulating for Cybersecurity

Recent CARR Discussion Papers

lse.ac.uk/researchAndExpertise/units/CARR/publications/discussionPapers.aspx
DP 69 The Risk University: Risk Identification at Higher Education Institutions in England
Michael Huber, July 2011

Publications

Understanding Regulation: Theory, Strategy, and Practice (Second Edition)
Robert Baldwin, Michael Cave and Martin Lodge, Oxford University Press 2011

Scientists and the Regulation of Risk: Standardising Control
David Demortain, Edward Elgar Publishing 2011

Managing Food Safety and Hygiene: Governance and Regulation as Risk Management
Bridget M Hutter, Edward Elgar Publishing 2011

Anticipating Risks and Organising Risk Regulation (Paperback)
Bridget M Hutter (ed), Cambridge University Press 2011

Foucault and Sociology
Michael Power, Annual Review of Sociology 37, 2011, pp. 35-56

Smart and Dumb Questions to Ask about Risk Management
Michael Power, Risk Watch, May 2011, pp. 2-5
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National Audit Office

CARR Administration

Charlotte Knights - Centre Manager and Discussion Papers

Justin Adams - Seminars

Lynsey Dickson – Web and Publications

Elizabeth Venning – Reception