



The Risk University: Risk identification at higher education institutions in England

Michael Huber

The Risk University

Risk identification at higher education institutions in England

Michael Huber

Contents

Abstract	1
Introduction	2
Risk management in academia.....	3
Methodological remarks.....	5
The emergence of academic risks.....	6
Structuring risk registers	7
<i>Accounting for risks</i>	<i>7</i>
<i>Embedding assessments.....</i>	<i>8</i>
<i>Organisational structure and risk registers</i>	<i>9</i>
University risk management	10
<i>Teaching risks.....</i>	<i>11</i>
<i>Research risks.....</i>	<i>12</i>
<i>Organisational or ‘delivery’ risks.....</i>	<i>13</i>
<i>External risks</i>	<i>15</i>
Constructing ‘academic’ as reputational risk	15
<i>Reputational risk</i>	<i>15</i>
<i>Reputation and organisation</i>	<i>17</i>
Concluding remarks.....	18
References	19

The work was part of the programme of the Centre for Analysis of Risk and Regulation.

Published by the Centre for Analysis of Risk and Regulation at the
London School of Economics and Political Science
Houghton Street
London WC2A 2AE
UK

© London School of Economics and Political Science, 2011

ISBN 978-0-85328-434-5

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of the publisher, nor be otherwise circulated in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

The Risk University

Risk identification at higher education institutions in England¹

Michael Huber

Abstract

In 2000, the Higher Education Funding Council of England required all universities to implement risk management as a governance tool since it expected an increase in efficiency in decision making. While the regulatory regime has been described in literature, the response of universities remained greatly unknown. This paper outlines a first attempt to investigate the identification strategies of academic risks. Based on a limited set of risk registers developed by universities covering the entire range of English universities, this discussion paper presents three major findings. Firstly, universities could not capture the core functions of universities, teaching and research, with organisational means. Secondly, universities had to find proxies that they could link up with organisational decisions. In this context, the emerging concept of reputational risk provides an all-purpose tool for risk management allowing universities to capture all possible challenges and problems in terms of risk. Thirdly, when universities identify academic risks, structural features such size, international and research orientation or the degree of collegiality in decision making shape the way academic risks are defined. These initial findings could direct further research that seems essential for better understanding of academic risk management and its effect on universities.

¹ The author wishes to acknowledge the financial support of LSE's Centre for the Analysis of Risk and Regulation in conducting this research.

Introduction

In 2000, the Higher Education Funding Council of England (HEFCE) required all universities to introduce risk management as governance tool. Risk is not the object of regulatory policy making but a method to facilitate and improve decision making. This alteration in the functionality of risk is characteristic of recent developments in the English regulatory state (Hood et al. 2001: 4; Moran 2003; Rothstein et al. 2006). Risk management prioritises activities and events according to their impact and probability, which, in turn, should improve the efficiency and accountability of decision-making. This promise is given for all risk-based governance ‘as part of the “modernizing government” agenda, as a way of maximising the benefits of regulation while minimising the burden of regulates by offering “targeted” and “proportionate” interventions (...) Risk based regulation has been promoted as an economically rational decision making instrument for managing the difficult trade-offs between competing priorities that are inherent in any regulatory activity’ (Rothstein et al. 2006: 97). HEFCE endorsed this line of argument claiming: ‘when used well, it [risk management, M.H.] can actively allow an institution to take on activities that have a higher level of risk (and therefore could deliver a greater benefit) because the risks have been identified, are understood and are being well managed and the residual risk is thereby lower’ (HEFCE 2001a: 1). Moreover, risk management should strengthen the organisation of the university, make it more rational and support strategic decision making (cf Brunsson & Sahlin-Andersson 2000). Improving decision making capacities however is only one benefit to governance ascribed to risk management. Benefits can also be derived from the risk protocols, documenting compliance and shielding bureaucracies when they are blamed for negative effects of risky decisions (Hood & Rothstein 2001).²

HEFCE’s risk initiative and the regulatory risk framework in higher education have been examined recently (e.g. C. Huber 2009; M. Huber 2010; Power et al. 2009). We know about the general expectations of risk management in higher education, about the aspiration of rational behaviour and about the growing legitimacy, accountability and efficiency that risk should generate for higher education. We know the regulatory framework. However, we know little about how universities as primary addressees of regulation adapt to the new risk tool and how they use it. How do universities identify risks? Can universities enjoy the promised benefits of better governance and accountability? Are all universities benefitting from risk management uniformly or can we observe how some organisations benefit more than others? Only one of these question is the focus of this paper, namely, how universities identify academic risks. While regulators develop a comprehensive and uniform risk management template, university risk management is expected to reflect the specific environment and the local organisational skills. Accordingly, variations in risk management will occur reflecting organisational features such as size, visibility or profile, e.g. in research or teaching. Universities, however, generate an additional challenge to the idea of improving decision making, as they are considered incapable of rational decision making. For example, Brunsson & Sahlin-Andersson (2000: 734) conceptualise the university as an *arena* ‘because its members and what they do, are legitimately guided by external interests, values norm and standards rather than by an internally generated organizational policy’. Others depict

² Importantly, the legitimacy of risk management is augmented by its formalisation – irrespective of its methodological validity (e.g. Rose 1999: 197 ff).

universities as an empty organisational shell that is unable to act strategically (Braun 2001). It is a common trait of university studies to highlight such organisational shortcomings.³ Thus, risk management and with it, the expectation about rationalisation, meets an organisation that is characterised by ‘organised anarchy’ (Cohen & March 1974) or even resistance to reform (cf Stichweh 1994). In the context of academic risk management this raises questions about how risk is shaping university reform. Is academic risk management one step towards turning universities into rational, strategic actors or is it just another ‘ritual of verification’ (Power 1997)? Is risk adapted to these particular organisational circumstances?

Reconstructing the unfolding of risk management at university level provides insight into a process of modernisation of higher education and draws attention to the specific conditions of implementing risk as an organising concept. This paper is structured in seven sub-sections in the following order: a brief conceptual outline on the spreading of risk management and the effects on the ‘university’ as special organisation; a sketch of the regulatory framework developed by HEFCE; some methodological remarks; delineation of a preliminary comparative analysis of how risk registers are structured and some preliminary finding on how these structural pre-conditions unfold as a function of organisational structures; analysis of the content of risk registers outlining which risk events are selected and how they are assessed; and finally, a focus on the emergence and function of reputational risks as a genuine form of academic risks.

Risk management in academia

With the growth of the university sector in the 1980s tightly linked to the New Public Management, the demand for the efficient use of taxpayer’s money emerged and increasingly required universities to be accountable to stakeholders. In 1984, McNamara & Booth (1984: 175) predicted that universities will ‘come under the same pressure as the rest of the public sector to demonstrate that they provide value for money’. To meet these expectations the authors suggested *risk* to be a feasible management approach. Irrespective of this early warning, the introduction of risk management into British academia in 2000 was still observed with some perplexity and universities responded to the HEFCE initiative with hesitation and critique. For instance, the University of Cambridge criticised these new management strategies as ‘alien to the character of the University and do carry pressures which could seriously damage the flexibility and diversity which is a particular strength of Cambridge; they would certainly be unprofitable for a University such as this’ (Raban and Turner 2003: 22). Such a response suggests that risk management was imposed on universities. Even if this is the case for some institutions, not all universities felt alienated by risk. Others embraced risk management – in accordance with official statement – that there would be substantive benefits for complying with the new rules (cf Raban & Turner 2006). For them, risk management provides a suite of forensic ideas, concepts and tools for

³ Reference is frequently made to Cohen et al.’s (1972) article on the *garbage can model* or Weicks (1976) concept of *loose coupling*. However, the authors do not share the view that loosely coupled or anarchic organisations are deficient. ‘People who are steeped in the conventional literature of organizations may regard loose coupling as a sin or something to be apologized for. *This paper takes a neutral, if not mildly affectionate, stance toward the concept*’ (Weick 1976: 6; emphasis added).

systematically gathering and analysing information about potentially adverse events and developing strategies in response to these challenges in the higher education sector.

Neo-institutionalism suggests that the process of diffusing ideas like risk management across academia would converge in a prototypical ‘risk university’ (for the convergence hypothesis see Frank & Meyer 2007). The convergence would be explained by the concept of *isomorphism* (DiMaggio & Powell 1991) distinguishing between actors being mandated to apply a certain management tool (*coercive isomorphism*) and *mimetic isomorphism* where organisations imitate features of successful management tools. Both forms of isomorphism can be found in the case of English higher education: coercive, as universities were obliged to use risk management and mimetic, as HEFCE intentionally opted for a university-based approach to risk management. ‘HEFCE accepts that each individual institution will have its own system of corporate governance tailored to its own particular objectives and management processes’ (HEFCE 2000: 1). However, no university provided a role model. Despite the huge pressure to implement risk management in academia, empirical facts and theoretical considerations confronted this convergence hypothesis. Firstly, English universities are required but reluctant to implement risk management tools as they claim in interviews that the HEFCE template for a unifying function is in fact useless. Secondly, this top down model of convergence provides a higher education reform that is not only too narrow but too optimistic of its success. The optimism depends on the expectation that ideas can be copied into all environments. However, it has been shown that organisational templates are not copied, but adapted and ‘edited’ (Wedlin 2007).⁴ These arguments suggest that instead of convergence in a uniform risk university, the introduction of risk management will instead yield a range of risk universities.

Moreover, adaptation and imitation are concepts that demand certain features of organisations. For example, North (1990: 4 f) distinguishes *institutions* and *organisations* by reference to *rules of the game* and a *team of players*, claiming ‘the objective of the team within a set of rules is to win the game – by a combination of skills, strategy and coordination’. Thus, in order to succeed, organisations need to use opportunities and interpret the rules of the game at times in ‘isomorphic’ ways, by innovating or transgressing the traditional framework. It is due to their interpretative effort that ‘organisations are ... a major agent of institutional change’ (North 1990: 5). Organisations are conceptualised as rational, autonomous and strategically skilled actors, capable of exploiting opportunities. In contrast to these expectations, the university is depicted as an organisational type, incapable of rational decision making and lacking strategy. For example, these organisational particularities of universities are described as a loosely coupled system, ‘richly connected networks in which influence is slow to spread and /or is weak while spreading, ... a relative lack of coordination ... infrequent inspection of activities within the system ... those occasions when no matter what you do things always come out the same’ (Weick 1976: 5). Loose coupling generates a multifaceted, sensitive organisation that nevertheless fails to take, and in turn, to implement decisions across all departments. The innovative potential of the loosely coupled organisation balances local inventions and lack of internal coordination, undermining rational strategic

⁴ In terms of differentiation theory, this editing process points to the problem that political demands need to be reinterpreted by universities with scientific logic. It is this transgressing of the functional boundaries that hinders a simple imitation process.

decisions. Meyer & Rowan (1977: 354) highlight another shortcoming when they characterise universities by ‘variable, unclear technologies to reproduce outputs that are difficult to appraise’. *Unclear technology* is a concept that Cohen et al. (1972: 1) describe as follows: ‘Although the organization manages to survive and even produce, its own processes are not understood by its members. It operates on the basis of simple trial-and-error procedures, the residue of learning from the accidents of past experience, and pragmatic inventions of necessity.’ In the context of higher education, teaching and research are identified as unclear technologies as these central academic functions ‘are difficult to describe ... they can hardly be prescribed ... and they are difficult to reproduce’ (Musselin 2007: 72). Both, unclear technology and loose coupling describe an *incomplete* organisation (Brunsson & Sahlin-Andersson 2000). These ‘deficiencies’ contradict the expectation that templates of risk management can be imitated. Attempts to implement governance tools at universities are bound to fail as ‘formal structures and procedures ... hardly define what to do and how to do it because of the specific characteristics of teaching and research described above ... *As a result, changing the formal structure most of the time has no effect*’ (Musselin 2007: 75, emphasis added). Even if risk management does not fail, it will be shaped by these structural features of the organisation and may gain a paradoxical status in this setting: the use of risk management signals to stakeholders and regulatory agencies that universities are already rational actors and, simultaneously it may be considered a means to overcome the structural impediments to rationality. This draws not only justified attention to the organisational skills of universities, e.g. to control and reform the core functions, but also to strategies on how the risk tool is adapted to the organisational needs and interests in the transformation process.

Some preliminary answers to the question of how universities appropriate risk management can be given by an analysis of local risk registers. These registers reflect not only how universities identify academic risks, but indirectly also point to organisational responsibilities and power structures that shape the implementation side of risk management, including the adaptation of the tool itself.

Methodological remarks

One of the key issues in the regulatory context concerns the difficulty in clarifying academic risks. Exploring the field, Dr Tola Amodu (LSE) and I collected publications, documents on risk management issued by regulatory agencies and universities, and interviewed risk managers (LSE, Bristol, Derby, HEFCE) and communicated with scholars about the issue e.g. Gareth Williams (London), Colin Raban (Derby), Carolyne Booker (Strathclyde). The information derived from these interviews and communication drew our attention to *risk registers* where universities define their individual risk portfolios. When investigating how risk registers mirror the university’s attempt to adapt to risk management, the main concern was less to provide an overview over registers, but rather to analyse a few risk registers in detail.⁵ This analysis was expected to reveal how universities identify academic risks and by

⁵ We tried to still cover a wide range of universities including large and small institutions, elite and other universities. Some of these registers have been published and can be found on the university’s website. For example: <http://www.admin.cam.ac.uk/offices/secretariat/risk/register/>, <http://www.derby.ac.uk/risk->

that mirror the structural constraints to risk management in higher education. A detailed analysis of the few risk registers aimed to develop a structural hypothesis on how universities change through their use of the risk tool. Those preliminary hypotheses should then be investigated further.

The study is also restricted in some other ways. Firstly, risk registers are adapted and developed at least on a yearly basis. How registers develop over time has not been taken up here. The empirical analysis is restricted to 2009. Secondly, in most cases, risk registers are not one integral record but rather a series of documents that span from registers produced by the various level of administration to documents related to individual (research) projects. They are written at different points in time and with varying expertise. A comprehensive picture of risk management is available – if at all – only to specialised risk officers of the individual university. The reconstruction of complete registers cannot therefore be carried out in this explorative study (but would be an undertaking worth pursuing). Thus, we restricted our data collection to registers issued by central administrations.⁶ Thirdly, risk registers provide guidelines (e.g. how to differentiate risk levels) and ensure internal coherence. Thus, there are substantive restrictions to what we can learn from this analysis. For example, the registers do not directly indicate who carries out the risk assessments. When the risk registers ascribe ownership to individuals, office holders or committees that monitor the university's environment for risks and as such constitute the central elements of an early warning system, this attribution often does not coincide with decisional powers or formal responsibilities. Fourthly, we chose to focus on written statements as we were interested in analysing *organisational decisions* and were less interested in the observations of university members. Written communication constitutes the core of organisational decision making as it allows organisations to follow up on such documents, irrespective of individual memory. Written documents are the backbone of organisational routines (cf Weber 1978).

The emergence of academic risks⁷

To outline the institutional framework for university risk management, we distinguish three phases of HEFCE's search for academic risks (for more details see C. Huber 2009; M. Huber 2010).

- After reviewing its accounting instructions, HEFCE decided to initiate a risk management approach, as 'there are genuine business benefits to be gained ... quite apart from improvements in accountability and shareholder confidence' (HEFCE 2000: 1). Risk was defined as 'the threat or possibility that an action or event will adversely or beneficially affect an organisation's ability to achieve its objectives' (HEFCE 2001: 1). Although

management; www.hull.ac.uk/workbasedlearning/documents/2of4revisedFeb2009.ppt; [http:// www.bristol.ac.uk/planning/strategicplanning/risk](http://www.bristol.ac.uk/planning/strategicplanning/risk).

⁶ Few registers are published. The disclosed documents we could access and which are part of this analysis, showed no notable difference from publicised registers.

⁷ The overview provided here focuses on the English regime and English universities. The focus has been chosen because of presentational simplicity. If the analysis would be expanded to the UK, the variations of the Welsh, Northern Irish and Scottish regulatory framework would have to be accounted for even though this would not add substantively to our findings, but just complicate the presentation enormously.

explicitly *all* risks should be managed, risk management was tightly linked to financial issues. However, at this point in time it was not evident, what the academic risks actually were and what the consequences of risk taking could be.

- With a first guide to Good Practice in Risk Management (HEFCE 2001b), HEFCE began a search for academic risks not only at a corporate, but also at faculty or departmental level. Academic risk could comprise everything from adverse publicity, financial losses, students, overseas operations, poor results in Research Assessments Exercise (RAE)⁸ and risks to life and limb during academic excursions. HEFCE published risk registers that took different forms. We first found lists of all known and assumedly relevant factors, problems, events and challenges influencing university performance. A slightly more structured approach was launched after 2002 with a *risk tree* where eight main areas of risk were identified and a set of sub-risks attributed to each area (Huber 2010: 128 ff). With a prompt list of academic risks, HEFCE not only discriminated risks levels, but also identified ‘contributing factors’, ‘mitigating actions’ and ‘early warning mechanisms’ as relevant features of risk management. These features allowed academic risk to be embedded into university governance.
- From around 2005 until today, policy documents no longer focus on singular risks, but risk areas. Academic risk management gained structure and started to identify causes covering wide temporal and spatial arrays. Risk management pointed towards a complex intertwined system of organisational, regulatory and societal structures that determine the risks to be taken.

At this point, universities took up risk management as a governance tool and started to develop their own registers.

Structuring risk registers

HEFCE’s risk regime was laid out in the form soft rules and best practice guidelines. These soft rules required selection and interpretation of which events could be relevant risks and to identify their specific risk portfolio, individual universities should follow what HEFCE calls individual ‘risk appetite’ (e.g. HEFCE 2001b). The results of the interpretative process are publicised in form of risk registers. They either inform university members about risk management or they spread the information beyond the university to an interested public; the main addressees however are the regulatory agencies, HEFCE and the Quality Assessment Agency. Risk registers reveal how universities search for academic risks and how risks management varies in accordance to organisational features. Analysing this process, we first focus on the ‘form’, then on the ‘content’ of these registers.

Accounting for risks

Generally, the relevance of risk events in risk registers is revealed in two ways: either the risks are listed (or ranked) or they are grouped according to criteria such as administrative tasks, visibility or institutional manageability.

⁸ As of 2014, the RAE will be the Research Excellence Framework (REF).

Hierarchical risk lists rank risk events. The main difference between them is the ranking criteria and the number of events this registers account for. For example, the University of Cambridge tabulates 16 risks, other universities itemise over 50. Most often, the risks are listed according to the severity of impact for the university.⁹ Reference to impact suggests a certain control over risk: that the university is able to identify all relevant events and to bring them into a (more or less) coherent order.

Risk registers may group risks according to central categories. We have already briefly referred to HEFCE's risk tree and suggested that grouping was a step in the evolution of risk regulation. We find a wide variety of grouping criteria. For example, the University of Bath groups its risks according to areas of responsibility or functionality. The eight groups have been labelled as follows: risks to (i) reputation / institutional profile, (ii) research, (iii) learning and teaching, (iv) knowledge transfer, (v) strategic partnership, (vi) human resources, (vii) estate and infrastructure, and (viii) financial issues. Between those groups no clear priorities emerge, they all appear to be of equal importance. Within each group, risks are ranked according to impact.¹⁰ The University of Derby groups risks according to institutional levels (central, departmental, institute); this approach highlights the accountability of the respective administrative levels. As a consequence, financial risks, risks of storm or terrorist attacks are located at the highest administrative level, while we find more concrete hazards (most often connected to teaching and research) at the level of departments and institutes. Yet another form of grouping risks can be found at universities that structure risk registers as in layers of an onion, distinguishing core risks, organisational risks and external risks. The core risks concern teaching and research. Around this core, we find organisational or delivery risks that emerge when managing the provision of teaching and research. A third layer concerns external risks that are beyond direct control and influence of individual universities (compare HEFCE's academic risk model in HEFCE 2008: 43).

Embedding assessments

A second feature of risk registers concerns how the results of risk assessments are displayed. We can distinguish between a 'simple' approach, representing risk numerically, and an 'extended' approach, where not only likelihood and damage are indicated, but attempts are made to further embed the risk assessment into university management.

The numerical representation of risk either combines probability and damage, or accounts for them separately. Common for all universities, these assessments are represented by referring to a simple trinity of low, medium and high probability respectively, relating to damage values. The absolute damage values will vary with the size and wealth of the university, as does the probability of occurrence of certain events; thus they are made comparable through simplification across the sector. A widely recognised weakness of formalised risk management, namely the inability to clearly distinguish between frequently occurring events

⁹ These lists are ranked according to an aggregated result of risk assessment, starting with the most pressing and most dangerous risk; although assessment results vary, all lists have financial and reputational risks ranking at the top.

¹⁰ Methodologically, it is difficult to categorise events unequivocally. For example, risk that could be labelled as 'reputational' are often also placed in the category 'financial risks', 'strategic partnerships' or 'publicity'.

with low impact and exceptional events with a huge impact, is resolved by guidelines that suggest how to weight certain combinations of probabilities and damage values.

The formalised assessment can be expanded in two ways. Firstly, universities may add risk dimensions. For example, some universities add a time dimension – specifying short, medium or long term. By this means they intend to account for the period within which risks can be expected to affect and disturb normal organisational operations. The organisational attention is biased towards short-term issues rather than structural, long-term problems. For example, when Cambridge University assesses its estate related risks, the risk is considered ‘low’ but in a comment this assessment is contradicted with reference to the time span taken into consideration: ‘A longer term view would indicate a less satisfactory position in relation to the need of redevelopment of central sites and the absence of a long-term capital programme’ (Cambridge 2009: 35). A second expansion of the risk concept takes place when universities assess individual risks twice. Risks are first assessed ‘objectively’ and numerical probability and damage values are attributed to specific events.¹¹ Cambridge University defines these as *raw*, i.e. ‘the level of risk faced by an organisation *before any internal controls are applied*’ (Cambridge 2009: 1; emphasis added). Raw risks are ‘objective’ insofar as they do not account for the university’s preparedness in managing those risks and independent of risk appetite. Taking up these considerations, most universities develop the secondary concept of *net* or *residual risk*. It assesses ‘the level of risk faced by an organisation *after internal controls have been applied*’ ((Cambridge 2009: 1; emphasis added). Doubling risk assessment shifts the attention from risk features to the risk resilience of organisations. Net risks expand the range of events that should be accounted for since they reflect managerial properties and demand reference to risk owners, organisational measures containing risks and actors responsible for the organisational decisions on risks – all new *organisational risks*.

Organisational structure and risk registers

The sample of registers does not exhibit an obvious correlation between management and university structures. One reason could be that the risk tool is applied uniformly irrespective of structural differences. Variations could be explained either as random deviations or as development comparable to the three phases of HEFCE’s risk regime where universities start out by developing a very basic search strategy for academic risk that in a number of steps unfolds towards a more complex and flexible structure. Assuming such a learning model exists at university level, our empirical snapshot represents an unsynchronised yet uniform development across the higher education system as some universities are laggards whilst others are leaders in this process. Similarly, the numerical representation of academic risks can be perceived as a step in historical development, starting with some basic assessment and expanding towards an embedded strategy. Thus, differences in risk management only reflect different steps of the development.

However, the idea that the formal representation of risk management in risk registers converges is not really supported by empirical evidence. For example, the difference between listing and grouping of risk events could be linked to the organisational ability of taking

¹¹ With the doubling of risk, universities apply strategies which have also been observed in the context of insurance risks or nuclear power (Huber 2008).

binding decisions. For instance, if the financial independence of universities could serve as a proxy for rational decision making and organisational autonomy, it could be argued that financially independent universities can make binding decisions for the whole organisation and tend therefore to develop a uniform risk management. Conversely, less autonomous universities are loosely coupled, and have to compromise between excellent and normal departments, researchers and students. Instead of integrating these internal stakeholders into a comprehensive risk management the registers will be more fragmented and respond flexibly to a diversified organisational demand. Another explanation is that risk lists represent the entire university as they rank risks from a centralised perspective. This means either that a strong central administration is able to impose its view or structural differences between departments can be neglected; this in turn suggests that such registers are from uniform institutions.¹² The same may be true for a collegially governed university, where a common value-base binds the members of the university together.¹³ Thus, it may be hypothesised that bureaucratically strong universities and value-based collegial institutions will use risk lists. And it seems persuasive to assume that other universities will have to develop a different strategy to account for risks. Risk groups focus on substantive issues and pre-suppose a loosely coupled organisation in terms of departments and quality. Compared to risk lists, grouping provides a more flexible risk approach. Not all members or sub-units of universities have to agree on an 'objective' ranking or subscribe to a common value base; they can operate in a more diversified way and still act unified. Thus, grouping risks may ease problems of coordination and veil insurmountable internal differences as well as the lack of organisational capacities to decide. Moreover, the introduction of a net-risk concept supports the basic divide outlined above: net risk requires organisational competence and skill from universities, and the ability to take rational decisions. Universities that subscribe to raw risk could be assumed to be less integrative and less autonomous.

University risk management

The brief analysis of the structure of risk registers ignored the 'content' of academic risk management. This section asks how academic risks are identified and thereby complements the previous analysis. Each structure of risk registers draws attention to specific aspects of risk management. This section follows the onion structure beginning with the analysis of core risks related to teaching and research and then investigating organisational and external risks. Alternatively we could have started with the top ranking risks, mostly financial and reputational loss, and worked our way down the lists. The onion structure highlights the organisational constraints to academic risk management whilst the focus on the risk lists draws attention to cross-cutting risk types such as reputational risk, which will be discussed later.

¹²Or they reappear elsewhere; in the case of Cambridge, structural conflicts are a risk considered particularly relevant. The risk in balancing the relationship between natural sciences and humanities is ranked fifth on a risk list of 16.

¹³It is not surprising that elite institutions such as Cambridge refer to a common value base as they are still perceived as strongholds of collegial, value-based decision making (Braun 2001).

Teaching risks

Starting with teaching and research focuses on the practical core of universities. Predictions about research quality prove to be extremely hard. For example, Merton (1973a) showed how difficult it is to assess academic quality in retrospect (e.g. in the form of awards) and that it is even more complicated trying to anticipate quality (e.g. in research funding). And for universities it is nearly impossible to foresee where academic innovation will occur. Similar concerns have been raised about the ‘technology-deficit’ of teaching (Luhmann & Schorr 1988: 118 ff) that flags difficulties in predicting the impact of teaching. Thus it is of little surprise that risk registers link teaching risks not to the teaching process, but to teaching with contextual elements, such as students’ perceptions of teaching. For example, the risk register of an elite institution described its only learning risk as follows:

- *Teaching experience may undermine the market position*

This wording establishes a causal relationship that Cambridge University unfolds in quite some detail:¹⁴

- *Unsatisfactory student experience may lead to loss of reputation in relation to national and international competitors. Risk may be particularly high in the case of overseas students taking one-year courses.*

That *student experience* may negatively influence *market position* is immediately comprehensible but raises a set of problems. For example, can universities take decisions that have immediate influence on the market position? Can universities reliably monitor their environments? And, can challenges be connected with university decisions?

As far as monitoring is concerned, the risk register explains that *teaching experience* is assessed through routine surveys of students’ *learning experience*.¹⁵ The Teaching Committee of this university routinely surveys student expectations and focuses on a set of factors that are traditionally expected to shape the students’ experience.¹⁶ For example, high fees and contact with teachers positively influence the experience, while the growing number of part-time teachers, the fundamental tension between teaching obligations and the need to perform in the RAE unfold a negative impact; also class size and career structure for students shape the student’s expectations. When the university constructs teaching risks, it relies on the results and the methodology of these surveys. But this does not suffice for the needs of risk management. Two steps of a ‘translation process’ can be observed, and the first focuses on immediate resolvability. For example, the tension between teaching and research obligation is well recognised but seems irresolvable. Decision makers therefore prefer to select resolvable sub-risks such as:

¹⁴For our limited purpose the two risk descriptions may be taken as equivalent. A more detailed analysis would focus on the precise wording and the qualifying features added to the second statement (overseas students, compact courses, regulation) and by that highlight the difference between those two statements.

¹⁵*Learning* captures the side of students, *teaching* the side of the university. This shift in focus is a first essential indicator for how external events are ‘internalised’. If teaching was the centre of attention, measures like grades or competence would be central to risk management.

¹⁶These selected factors are unrelated to formal risk assessments.

- *The excessive use of part time teachers*
- *Insufficient training of (all) teachers*
- *New technologies are not sufficiently used in teaching.*

These sub-risks break down ‘teaching experience’ into decisions on the number of part-time teachers, further training for teachers and on the use of new technologies (e.g. e-learning facilities). The university could decide to change the level of fees or implement strategies of how to deal with RAE results, but it considers these issues to be unfeasible. In a second step organisational structures come to bear on the solutions. For example, the suggested solutions focus on an organisationally weak group, the part-time teachers, who can easily be persuaded to change behaviour. In that way, the challenges of learning / teaching risks can be translated into attainable projects of teaching certificates, minor pay increase and more frequent office hours. The approach is shaped less by the intention to improve and rationalise the university’s management but rather by organisational power relations.

This example of learning risks illustrates the difficulties in utilising risk management for the core functions of academia. Basically, the problem is to identify threats and then transform them into decidable issues. As teaching cannot be managed directly, universities focus on indirect indicators such as size of classes, number of part-time teachers or the fitting of rooms with teaching equipment. Organisational structures influence the selection process in three ways. Firstly, the choice of sub-risks suggests that the power structure – one could assume that the distinctive collegial system and a more fragmented, loosely coupled system could enlighten the analysis – shapes the choice of risks. Secondly, those who are requested to provide information systematically shape the decision. The identification of risks is biased by values and beliefs of small groups of risk owners and decision makers. Thirdly, risk owners could either be collective bodies (e.g. the Teaching Committee) or individual administrators. Their perspective on the university’s environment will vary accordingly.

Research risks

Research is the other core competence of universities. Again, the main focus in risk registers is on challenges to the university’s long-term performance in research funding, not in research proper. Two representative examples from elite institutions are:

- *REF method post 2008 not favourable to University*
- *University may have to adapt its research strategy: excellent RAE outcomes have not translated into appropriate financial awards*

Instead of concentrating on actual research, the focus in risk registers is on failures in the assessment and evaluation methods that shape resource allocation. Two sources of risk can be distinguished: the assessment method is failure-ridden as (i) it is not as favourable to specific universities as previously or (ii) as the ability to correlate research and reward is defective and huge uncertainties emerge. Both sources weaken the strategic control capacities of universities (if they ever existed). While the first risk source draws attention to the ability of universities to adapt to a changing environment, the second source extends the range of risks towards institutional defects that individual universities cannot modify. One specific, often referred to aspect of this second source concerns the multiplicity of publicised rankings. The

risk that students, funding agencies or other stakeholders misconstrue the ranking because of the contradictory results based on different variables is reflected in numerous ways. For example:

- *At least some league tables will show the University in unfavourable light*
- *Long term underpinning of fEC¹⁷ by Government not certain (but favourable review by RCs)¹⁸*

Risk registers distinguish the risk that regulators or funders may misjudge a flawless performance of the university from the risk that universities misunderstand the regulator's monitoring strategies and therefore fail to develop adaptive strategies. If universities acquire (or not) benefits undeservingly or excellent RAE results do not pay off, in both cases the planning of realistic research strategies becomes difficult or even impossible. Note that risk registers largely ignore risks inherent to the research process or research strategies at university level. They are not assessed or evaluated in terms of risk, although they are decisive for the competitive success of universities.

The examples presented above were taken from elite institutions. Other universities differ in their registering of research risks in two ways.¹⁹ For example, the University of Derby is less concerned with external recognition, but with ethical risks or with health and safety issues triggered by research. In the registers of elite institutions, these effects are assumed to be under control. Research proper is still not a potential risk. Another example is the risk management of the University of Bristol. It does not differ fundamentally in its perception of risk from the elite institutions' perspective, although risk registers locate research risks not at university, but at departmental level or even lower in the hierarchy, at the level of individual research projects. These examples support the hypothesis that organisational conditions influence the 'content' of risk management and, simultaneously, that the university finds it difficult to reach its functional core with organisational means.

Organisational or 'delivery' risks

The number of core risks presented in the risk registers is surprisingly low so that we could talk about an 'empty core'. By contrast, the number of risks related to the delivery of these core functions is 'crowded'. 'Delivery' or 'organisational' risks reflect the organisational or procedural features that – in case of failure – may jeopardise the core functions of

¹⁷Full Economic Costs

¹⁸Research Councils

¹⁹ Although evidence suggests that structural features of universities play a decisive role in the identification of academic risks, it proved difficult to group the universities in an unambiguous way. Size plays a role, and distinctions like research / teaching orientation and collegiality / managerialism (see Yokoyama 2006). To condense these features I use the distinction of elite and normal universities. Elite universities are characterised by research orientation, high collegiality and a smaller teacher / student ratio. Their risk identification does not differ much from that of post-1992 universities that focus on teaching and base their governance on managerial approaches. Although these two types mark the extremes of a continuum, the risk identification strategies of both display coherence. Central administrations can speak on behalf of their respective university. Normal universities usually have a more fragmented structure, mainly characterised by some departments exhibiting elitist features, others being less successful and therefore pose problems to a coherent strategy. This imperfect heuristics should make reading easier but would require more empirical underpinning before it can be used with analytical rigor.

universities. Such organisational risks range from investments in ‘wrong’ personnel,²⁰ the breakdown of IT, to terrorist attacks. Some universities focus on technical breakdowns and external threats, others (mainly elite institutions) are more concerned about the provision of an effective administrative framework. We found that only one university (Cambridge) explicitly considered the asymmetries in reputation and research funding between departments as a source of organisational risks.

The current financial crisis is conceived to be at the core of organisational risks. Risk management is based on the assumption that virtually all academic activities, services and practices can turn out to be related to financial risk. This central position of financial risks is also expressed in its very generic presentation. For example:

- *Impact of financial downturn / ‘recession’*

All aspects of the financial crisis are considered to be risks, an initial impression that misrepresents the considerations of some universities. First and foremost we find that elite institutions are mainly concerned with cuts in their income that are related to research funding. For example:

- *Fundraising policy may need to be reviewed,*
- *Research income from industry may decrease*

Universities like the University of Derby focus rather on the their students’ ability to pay the fees.

- *Economic recession: the deepening of an economic recession could reduce public sector funding and reduce family resources for educational purposes. This could adversely affect recruitment. The effects may be partially mitigated by shortage of employment thereby encouraging people to become students.*

Depending on their income structure, universities see the recession either as a problem of family income and basic government funding or as a challenge to research funding. One specific risk, registered only by elite institutions, concerns the placement difficulties of students due to the recession. Moreover, recession is problematic for elite institutions not because of the number, but because of the right mix of students. Others, in particular post-1992 universities see recession rather as chance to attract more students due to problems in the job market.

Common to all registers is that delivery risks are related to ‘inefficient’ or even failing award systems, problems of coordination or due to simple negligence. However, cost control and efficiency concerns do not only imply that universities risk spending too much or use the resources ineffectively, but that too little money spent may influence a university’s reputation. In other words, internally exaggerated demands on efficiency may backfire if representational expectations are not met.

²⁰Interestingly, ‘personnel’ is not a risk to the quality of research and teaching but an indicator of the dwindling attractiveness of universities (see ‘Constructing academic as reputational risk’).

*External risks*²¹

A final group of external ‘risks’ concerns those that are explicitly located outside the decisional horizon of universities. Rankings, league tables or the financial recession are such events that cannot be influenced by organisational decisions directly, although they are considered relevant for all managerial decisions. The main task here is to assure organisational members and regulatory agencies of the alertness of universities.

Constructing ‘academic’ as reputational risk

Risk registers illustrate the difficulty in establishing a direct link between organisational decisions and risk events. When the teaching encountered by overseas students was expected to undermine the market position of a university, the number of part-time teachers or teaching equipment substituted the risk item. This may be taken as an indicator for universities developing ‘theories’ of causal relations between risks and events that however miss ‘the correct instrument to measure which explanation is relevant and therefore often rely on highly speculative interpretations’ (Musselin 2007: 73).²² One crucial element to bind all those theories and risks together can be found in the concept of *reputational risk* that emerges as a genuine type of academic risk. Reputational risks may be interpreted as the other side of, or complementary to, financial risks that were the basis of the organisational risks. Reputational risks reflect the particularities of the university. Power et al (2009: 304) claim that with reputational risks surface ‘new and disturbing understandings of responsibility, accountability and decision making’, features that embed risk management in academia. The special status of reputation is derived from the key function of reputation in science where it works as a crucial strategy to guide scientific communication (Merton 1973b). Thus, to understand what reputational risks could be, it is worth recalling the main features of the concept of reputation.

Reputational risk

Reputation is the signalling system of science drawing attention to those scholars who have performed outstandingly and, with some probability, will repeat their success. Reputation simplifies the monitoring of the scientific debate for all scholars by pre-selecting promising contributions on the basis of previous accomplishments. In that way, reputation provides the possibility for other scholars to tie in more suitably into the academic debate and purchase reputation more effectively. This reduction of complexity only works if reputation is attributed by the *invisible hand* (Luhmann 1990: 246). If the attribution can be traced back to the interests of certain persons, groups or organisations, the reputation will be considered manipulated, corrupted and in turn, worthless as far as scientific communication is concerned. Related to this notion of reputation, reputational risk may refer to three challenges:

²¹It is questionable if they are risks in a formal sense at all, as they are ‘not a consequence of the decision, that is to say, it is attributed to the decision’ but ‘the possible loss is considered to have been caused externally, that is to say, it is attributed to the environment’ (Luhmann 2008: 20 f).

²²Carolyn Booker (Strathclyde) studied the risk management of one university department in her unpublished MA thesis and showed how members of the organisation construct academic risks and which events are considered essential. One critical element in these constructions was reputation (personal communication).

- corruption of the invisible hand – e.g. if politics or economic interest systematically prejudices the attribution of reputation.
- sending of confusing, unambiguous signals of reputational communication; as a consequence, scholars or students misread the signals and act inappropriately.
- loss of reputation – e.g. measured in diminishing league table results or rankings.

The first two aspects were discussed as genuine research risks (see above). They referred to methodological and political failures of the ranking and evaluation systems. Although risks emerging from this source could principally be managed, the ability of individual universities to optimise this process is rather restricted. The second source of reputational risks, the confusion about signals, is inherent in the global evaluation system.²³

The third source of reputational risks, the *loss of reputation*, is often measured in terms of changes in ranking results. However, the use of reputational risks is not restricted to rankings. Risk registers use reputational loss rather as generic academic risks that can be triggered by virtually any event within and outside of universities. In the accounts of risk registers, reputational risks range from property management to the impact of press statements by staff, bad press about student excursions, equality and diversity issues to a dirty classroom. Reputational risk has become an all-purpose tool for risk management. In the light of risk identification, this development raises the question of how these reputational losses are identified and how are they linked to university decisions.

To illustrate the uses of reputational loss, we start by outlining from our research how reputation is linked to challenges emerging from the origin of reputation. For example (underline added):

- *Reduction in research income would impact seriously on University finances and reputation.*
- *Fall in research funding ... would have a serious impact on the finances of the University, on staff morale and on reputation.*

Research risks are, first of all, linked to financial flows. Attaching reputation as another risk area suggests that wider academic features need to be considered when the normal operation of universities is scrutinised. The external recognition for research may not only be expressed in terms of rewards, financial contributions, RAE and rankings, but is also mirrored in the common attractiveness of universities for future staff and students.

- *Difficulty in attracting the best staff especially at professorial level ... Quality of staff is a key factor in the University's future performance and reputation.*

These indicators are primarily relevant for the orientation within the scientific and educational system. Thus the impact of reputational loss cannot be restricted to research staff and reward

²³In the UK, the RAE and HEFCE's assessment of risk assessment dominate the higher education sector. The German university system lacks one dominant evaluation scheme and the growing number of similar evaluations generates a deepening problem of reliability and orientation. At the international level, such dangers of disorientation are well documented.

systems but needs to also account for failures in governance that may influence the scientific (and educational) performance of universities. Their impact is measured again in terms of the reputational loss of universities and of course their financial situation. For example:

- *Elements of poor governance with regard to control and management. This can lead to adverse publicity and reputational and financial harm.*
- *On-going health and safety risk (short/med/long term) requiring constant monitoring. If this risk were to crystallize to any great degree the medium to long-term consequences could have serious financial and reputational damage.*

Some preliminary remarks on reputational risks may be derived from these examples. Firstly, as virtually every organisational decision impacts directly or indirectly on staff, students, university governance and academic working conditions, these decisions may be linked up with the risk of reputational loss. However, the selection of causal links will depend on the university's ability to manage issues than on the objective challenge. Secondly, as reputation is recognised by the invisible hand, local theories of what organisational elements may influence this unknown aspect flourish, as they cannot be controlled by the organisation. Moreover, when the concept is expanded to the organisation, governance in all its facets gains leverage and turn out to be risky. Thus, the quality of teaching rooms, technical equipment or the handling of safety issues may impact on reputation, as may the financial management, research styles and personnel. Thirdly, reputation is increasingly diversified according to stakeholders. Reputation plays a role for student's recruitment, determines the attractiveness for staff, but also shapes the public image of the university. The university is conceptualised as Kerr's (1963) 'multiversity' that has to respect and balance the interests of numerous stakeholders. The problem is that forms of reputational loss may contradict each other and, reflexively, turn a reputational risk into a risk in its own right.

Reputation and organisation

Expanding reputational risks from individual to organisational concerns generates a flexible concept, applicable to virtually all events. All universities apply it, not only organisations with a clear focus on research or with a global orientation. Two aspects augment the importance of reputational risks for the higher education sector. Firstly, the flexibility of the concept enables it to link virtually all events to organisational decisions. The multitude of possibilities demands selection. Risks are selected in accordance with organisational features, power relations and interest constellations. For example, elite institutions primarily link reputational risks to ranking or evaluation results. 'Normal' universities focus on reputational loss as a challenge to the general impression of the university in the national market addressing concerns of the scientific community and funding organisations as well as students or their parents, the relevant stakeholders. Here the entire philosophy of risk management may be turned upside down: it is no longer the objective severity of events that determine the alertness of the university, but the preparedness of the university defines the severity of events to be managed. Secondly, reputational indicators allow universities to monitor the sector, identify challenges and in turn to adapt organisations. In particular, reputational risks capture *weak signals* of poor governance, long-term effects of decreasing funding, demotivation of staff, poor selection of students or bad publicity and they provide university administration with a sensitive tool to capture the complex environment.

Concluding remarks

While the overriding rule of notoriously risk-averse bureaucracies was ‘never to permit surprises’ (Luhmann 2008: 190), did universities embrace risk management, reluctantly at first and at least as far as risk identification is concerned? Universities were faced with considerable uncertainty about academic risks. Two features of the process search for academic risks attracted particular attention. Firstly, universities could not capture their core functions – teaching and research – with organisational means. Instead, universities had to find proxies that they could link up with organisational decisions. Here the second feature concerning reputational risk comes into play. Reputational risk provides an all-purpose tool for risk management allowing universities to capture all possible challenges and problems in terms of risk. Generally it was assumed that these features contribute to the rationalisation of the academic sector. However, the modernising impetus of risk management ceases when confronted with the university as a special organisation. While HEFCE expected that risk management improves university governance ‘because the risks have been identified, are understood’ (HEFCE 2001a), this expectation has little bearing on the identification of academic risks by universities. Universities prefer exploiting the flexibilities of the risk tool according to their skills, interests and entrepreneurial force. Moreover, the structural particularities of universities provided the foundation for the variation of risk management. Their form varied with the degree of bureaucratic organisations, loose coupling or along the difference between elite institutions and other universities including post-1992 ones. For the argument it was less important to identify the precise structural features that determined the outcome, but it was more important to see that organisational features played a role, beyond the anticipated particularities of the university. The special organisation that forms the university did not assimilate risk management to be a rational strategic actor, but in the development of academic risk management the formalised management tool of risk was adapted to organisational needs and structures.

However, the sample was too small to further develop grand hypotheses about academic risk management, but large enough to develop some ideas for further research. Firstly, the study presented should be put on a broader empirical basis. Registers should be compared and secondary organisational features of universities (size, profile etc.) should be operationalised more systematically and carefully. Secondly, while we discuss the formal structure of risk assessment, the actual process remains opaque. What is the empirical basis for the assessment of academic risks? Do universities or departments develop systematic ideas about academic risks? How is resilience assessed? How are risk owners selected? In short, the practical approach to risk management requires in-depth examination. It was not touched upon in this paper. Thirdly, a set of research questions can be derived from the problem of how the risk tool was diffused across the sector and within universities. Which were the universities particularly eager to adapt to risk management? Was the diffusion based on individual or collective strategies? Can we identify a first-mover advantage or did second mover benefit? Fourthly, an issue that was hard to trace in registers concerns conflict resolution. How do universities deal with structural or power related tensions and conflicts? What type of university develops what type of conflict resolution? Fifthly, it was assumed that structural

changes of universities are minimal as risk management is adopted for all problems implying that ‘the breath of the phenomenon excludes the more specialized differentiation of risk management as a particular function of certain offices or departments. It is rather to be seen as a particular form of critical monitoring of all decisions by means of second-order observation’ (Luhmann 2008: 189). But does this hypothesis hold? Do risk offices and officers function as crystallisation points for a further bureaucratisation and new dynamics of university development or is the university still doomed at being unable to reform itself? And last but not least, the effects of the implementation of the risk management need to be analysed in more detail. Is risk management just a ritual of verification vis-à-vis regulatory agencies that has little bearing on organisational decision making or does risk management change decisions? Are genuine academic decisions taken under the impression of risk management? And again, how does the openness for such decision processes depend on specific features of universities? When initially it was suggested that we know about academic risk management, this paper rather suggests that there is much work ahead.

References

- Braun, D. (2001) ‘Regulierungsmodelle und Machtstrukturen an Universitäten’, in E. Stölting & U. Schimank (eds.), *Die Krise der Universität*. Opladen: Westdeutscher Verlag, pp. 243–62.
- Brunsson, N. & Sahlin-Andersson, K. (2000) ‘Constructing organizations: the example of public sector reform’, *Organization Studies* 21(4): 721–46.
- Cambridge (2009) ‘University of Cambridge risk register’, last accessed 7 July 2009, <<http://www.admin.cam.ac.uk/offices/secretariat/risk/register/>>
- Cohen, M.D. & March, J.G. (1974) *Leadership and ambiguity: the American college president*. New York: McGraw-Hill.
- Cohen, M.D., March, J.G. & Olsen, J.P. (1972) ‘A garbage can model of organizational choice’, *Administrative Science Quarterly* 17 (1): 1–25.
- DiMaggio, J.P. & Powell, W.W. (1991) ‘The iron cage revisited: institutional isomorphism and collective rationality’, in W.W. Powell & P.J. DiMaggio (eds.), *The new institutionalism in organisational analysis*. Chicago: University of Chicago Press
- Frank D.J. & Meyer, J.W. (2007) ‘Worldwide expansion and change in the university’, in G. Krücken, A. Kosmützky & M. Torke (eds.), *Towards a multiversity? Universities between global trends and national traditions*. Bielefeld: Transcript Verlag.
- HEFCE [Higher Education Funding Council for England] (2000) ‘HEFCE’s accounts direction to higher education institutions for 2000-01’, Circular Letter 24/00, <www.hefce.ac.uk/pubs/circlets/2000/cl24_00.htm> last accessed 8 June 2009.
- HEFCE (2001a) *Risk management: briefing for governors and senior managers*, 01/ 24 <http://www.hefce.ac.uk/pubs/hefce/2001/01_24.htm>
- HEFCE (2001b) *Risk management: a guide to good practice for higher education institutions*, 01 / 28 <http://www.hefce.ac.uk/pubs/hefce/2001/01_28.htm>
- HEFCE (2008) ‘Strategic Plan 2006-11’. Bristol: HEFCE.
- Hood C. & Rothstein, H. (2001) ‘Risk regulation under pressure. problem solving or blame shifting?’, *Administration & Society* 33 (1): 21–53.

- Hood, C., Rothstein, H. & Baldwin, R. (2001) *The government of risk*. Oxford: Oxford University Press
- Huber, C. (2009) 'Risk and risk based regulation in higher education institutions', *Tertiary Education and Management* 15 (2): 83–95.
- Huber, M. (2008) 'Fundamental ignorance in the regulation of reactor safety and flooding. The risk of knowledge management in the risk society', in N. Stehr, & B. Weiler (eds.), *Who owns knowledge? Knowledge and the law*, New York: Transaction Publisher, pp. 107–24.
- Huber, M. (2010) 'Colonised by risk. The emergence of academic risks in English higher education', in B.M. Hutter (ed.), *Anticipating risks and organizing risk regulation in 21st century*. Cambridge: Cambridge University Press.
- Kerr, C. (1963) *The uses of the university*. Cambridge MA: Harvard University Press. 5th edn 2001.
- Krücken, G. & Meier, F. (2006) 'Turning the university into an organizational actor', in G. S. Drori, J.W. Meyer & H. Hwang (eds.), *Globalization and organization. World society and organizational change*. Oxford: Oxford University Press, pp. 241–57.
- Luhmann, N. (1990) *Die Wissenschaft der Gesellschaft*. Frankfurt: Suhrkamp
- Luhmann, N. (2008) *Risk: a sociological theory*. New York: de Gruyter
- Luhmann N. & Schorr, E. (1988) *Reflexionsprobleme im Erziehungssystem*. Frankfurt: Suhrkamp.
- McNamara R.P. & Booth, P. (1984) 'Effective management techniques in tertiary administration: a risk management framework', *Journal of Tertiary Educational Administration* 6 (2): 175–82.
- Merton, R.K. (1973a) 'Recognition and excellence. Instructive ambiguities. In R.K. Merton, *The sociology of science. Theoretical and empirical investigations*. Chicago: University of Chicago Press.
- Merton, R.K. (1973b) 'The Matthew effect in science', in R.K. Merton, *The sociology of science. Theoretical and empirical investigations*. Chicago: University of Chicago Press.
- Meyer J.W. & Rowan, B. (1977) 'Institutionalized organizations: formal structures as myth and ceremony', *American Journal of Sociology* 83: 340–63.
- Moran, M. (2003) *The British regulatory state. High modernism and hyper innovation*. Oxford: Oxford University Press.
- Musselin, C. (2007) 'Are universities specific organisations?', in G. Krücken, A. Kosmützky, & M. Torca (eds.), *Towards a multiversity? Universities between global trends and national traditions*. Bielefeld: Transcript Verlag.
- North, D.C. (1990) *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- Power, M. (1997) *The audit society. Rituals of verification*. Oxford: Oxford University Press.
- Power, M., Scheytt, T., Sojn, K. & Sahlin, K. (2009) 'Reputational risk as a logic of organizing in late modernity', *Organization Studies* 30 (2/3): 301–24.
- Raban, C. & Turner, E. (2003) 'Academic risk: quality risk management in higher education', HEFCE Good Management Practice Project Interim Report. Bristol: HEFCE.
- Raban, C. & Turner, E. (2006) 'Quality risk management. Modernising the architecture of quality assurance', *Perspectives: Policy and Practice in Higher Education* 10 (2): 39–44.

- Rose, N. (1999) 'Numbers', in N. Rose (ed.), *Powers of freedom. Reframing political thought*, Cambridge: Cambridge University Press.
- Rothstein, H., Huber, M. & Gaskell, G. (2006) 'A theory of risk colonisation: the spiralling logics of societal and institutional risk', *Economy and Society* 35 (1): 91–112.
- Shattlock, M. (2006) 'Policy drivers in UK higher education in historical perspective: 'inside out', 'outside in' and the contribution to research', *Higher Education Quarterly* 60(2): 130–40.
- Stichweh, R. (1994) 'Die Form der Universität', in R. Stichweh, (ed.), *Wissenschaft, Universität, Professionen*. Frankfurt: Suhrkamp.
- Weber, M. (1978) *Economy and society*. Berkeley: University of California Press.
- Wedlin, L. (2007) 'The role of rankings in codifying a business school template: classifications, diffusion and mediated isomorphism in organizational fields', *European Management Review* 4 (1): 24–39.
- Weick, K.E. (1976) 'Educational organizations as loosely coupled systems', *Administrative Science Quarterly* 21 (1): 1–19
- Yokoyama K. (2006) 'The effect of the research assessment exercise on organisational culture in English universities: collegiality versus managerialism', *Tertiary Education and Management* 12 (4): 311–22.

Centre for Analysis of Risk and Regulation

The London School of Economics and Political Science
Houghton Street
London WC2A 2AE

tel: +44 (0)20 7955 6577

fax: +44 (0)20 7955 7420

email: risk@lse.ac.uk

lse.ac.uk/CARR