

# From Counting Risk to Making Risk Count:

Lessons from the Field

Anette Mikes  
Harvard Business School  
6 April 2011



# Is risk management succeeding or failing?

Renewed calls for risk management

Issues:

- Misplaced maths, misused models?
- Domains of models versus domains of soft instrumentation?
- Financial situations incorrectly diagnosed into domains of risk and uncertainty?
  - Risks versus Uncertainties (Knight, 1921)
  - Type I, Type II, Type III uncertainties (Knight, 1921)
  - The Known, the Unknown and the Unknowable (Diebold et al., 2010)

# Research questions

## How do risk managers make risk count in decision making?

- “Counting risk” – how do risk managers develop technologies of risk assessment?
- “Making risk count” - how do risk managers legitimize the “risk view”?

# Method and a preview of results

Field work:

- 2001-2010;
- Risk Futures Research Initiative (UK)
- 8 banks (longitudinal case studies);
- 152 interviews; company documents; 18-month immersion.

The growth and influence of risk management in banks is also contingent on internal processes:

- calculative cultures
- tool-making (“from box-tickers to frame-makers”)
- risk experts’ boundary-work.

# Counting risk: Alternative styles of risk control

# Alternative calculative cultures

Quantitative enthusiasm	Quantitative scepticism
<i>Banks A, B, and C</i>	<i>Banks D, E and F</i>
<p>“What we do is push as much of the decision making as possible to <b>automated, quantitative rules.</b>” (Bank A)</p>	<p>“Here, [making risk decisions] is <b>much more about judgment.</b> Clearly we use models (a) because we have to, (b) because they are an aid to judgment, but if you went back—we were quite late to the model game. <b>I still regard them with a high degree of circumspection.</b>” (Bank D)</p>
<p>“If you can’t <b>capture all risks pretty comprehensively and measure them consistently,</b> then no matter how skilled or experienced your people are, there’s going to be a limit on how good they can make their decisions, because they’re not looking at <b>the true picture.</b>” (Bank B)</p>	<p>“A model is a tool that you should be <b>comparing with what you expect to see....</b> Finding out a model doesn’t work anymore isn’t a good way of finding out there are changes in the background that you should adjust to. [...] What I would normally do is [...] I’ll put <b>mental markers</b> down...” (Bank E)</p>

# Alternative calculative cultures

<i>Calculative culture</i>	<b>Quantitative enthusiasm</b> <ul style="list-style-type: none"><li>• Risk numbers are deemed representative of the underlying economic reality</li><li>• Emphasis on the 'robust' and 'hard' nature of modelling</li><li>• Risk-adjusted performance measures are recognized</li></ul>	<b>Quantitative scepticism</b> <ul style="list-style-type: none"><li>• Risk numbers are taken as trend indicators</li><li>• Emphasis on learning about the underlying risk profile from the trend signals</li><li>• Risk adjusted performance measures are discussed, but are open to challenge</li></ul>
----------------------------	--	---

# Alternative styles of risk control

	<b>Focus on measurement</b> <i>(Banks A, B, and C)</i>	<b>Focus on envisionment</b> <i>(Banks D, E and F)</i>
<b>Risk measurements</b>	Expansion of measurement: market risk, credit risk, operational risks (advanced approach), economic capital	Basic metrics for market risk, credit risk, operational risks (basic approach), economic capital compliance-driven
<b>Focus of risk control</b>	Risk-adjusted performance measurement	Informing discretionary strategic decisions about “holistic” risks
<b>The role of judgment in risk modelling</b>	Model design contains the modeller’s judgment of the complex relationships between variables	Model design deliberately simple. Managerial judgment is exercised to adjust model implications to reflect additional complexities
<b>Scope of risk control</b>	Type I uncertainties Type II uncertainties	Type I uncertainties Type III (Knightian) uncertainties
<b>Style of risk control</b>	Continuous investment in risk analytics. Increase the domain of the Known (type I); reduce the domain of the <i>statistically knowable unknown</i> (type II).	Mental models; past experience; scenario thinking; devil’s advocates systems. Preparing for the <i>uncertain</i> .



# Making risk count: From box-tickers to frame-makers

# From box-tickers to frame-makers

*Depth of influence*  
(personal, non-tool, involvement of risk manager)

High	Ad hoc advisor	Frame-maker
Low	Box-ticker	Disconnected technician
	Low	High

*Scope of influence* (“attachability” of created tools to existing practices)

## Saxon Bank

Box tickers  
Ad hoc advisor (CRO)  
Frame-maker

Evolution over ten years

Risk function developed CRR, Scenarios, EWS  
-Attached tools to business processes  
-Found allies  
-Drew on business input  
-Avoided disintermediation

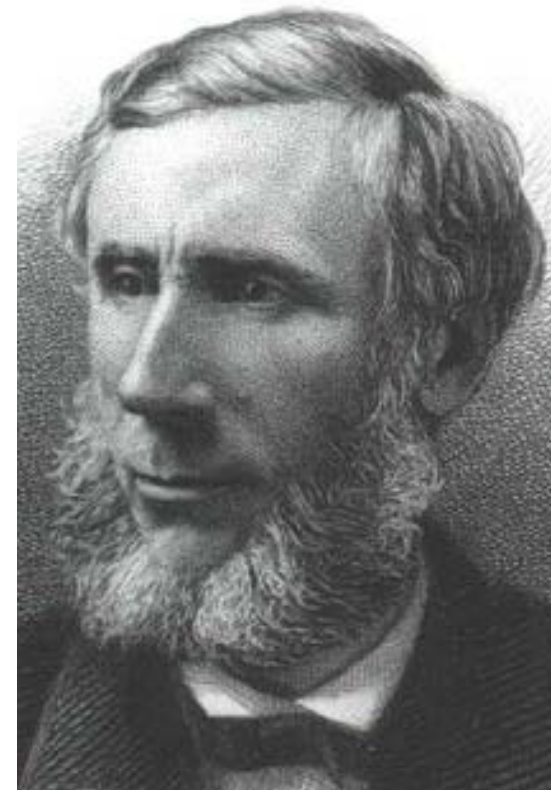
-Permanent, likely to outlast CRO

# Making risk count: The boundary-work of risk managers

# Boundary-work – how John Tyndall defined science for the Victorians

Religion	Mechanics	Science
Non-practical		Applied
Non-empirical		Empirical
	Observations-based	Theoretically abstract
	Applied	Nobler: “a means of culture”

- Each description of science is used at different boundaries (i.e. science is both “pure” and “applied”, depending on what distinguishes it the most)
- Constructed boundaries that rationalized scientists’ requests for enlarged authority and public support



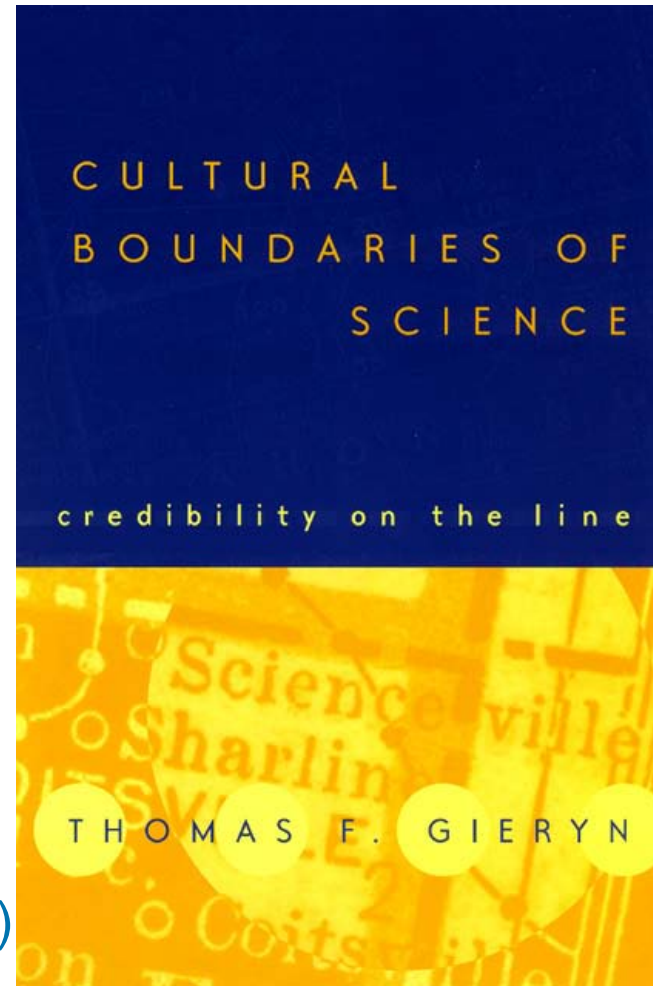
*John Tyndall (1820-1893)*

# Boundary work

## Boundary-work:

*the discursive practices by which scientists attempt to attribute selected qualities to themselves, scientific methods and scientific claims in order to draw a boundary between science and non-science (Gieryn, 1983).*

- Expansion (Extending the boundaries of science)
- Expulsion (Science vs. Bad science/Non-science)
- Protecting autonomy  
(Avoiding blame for downstream consequences)



# Calculative cultures and boundary-work

<i>Calculative culture displayed by senior risk officers</i>	<b>Quantitative enthusiasm</b>	<b>Quantitative scepticism</b>
<i>Sites of field work between 2006 and 2010:</i>	<i>Banks A, B, and C</i>	<i>Banks D, E and F</i>
<b>Observed boundary-work</b>	<p><b>Expansion</b> of expertise into new domains (market risk, credit risk, operational risk).</p> <p><b>Expulsion</b> (see Bank C): heightening contrasts with rivals; e.g. Claiming to be “more accurate” ; “more timely”.</p> <p><b>Protecting autonomy</b> over risk-control activities; limiting responsibility for downstream consequences.</p>	<p><b>Expansion</b> of expertise into new domains (planning and strategic decision making).</p> <p><b>Expulsion</b> (see Bank E): Heightening contrast with rivals; e.g. “informed cynicism” as opposed to a “theoretical, compartmentalized” risk management.</p> <p><b>Leaving porous boundaries</b> between the risk function and the business lines; <b>expanding responsibility.</b></p>

# Implications for the development of risk management

- It is not really “risk management” that is steadily staking out new territory, but a variety of *risk managements*.
- Need to catalogue good practices of risk measurement and risk envisionment
- “Horses for courses”:
  - Measure – the known and the statistically knowable
  - Envision – the unknown / unknowable
- Expected developments:
  - More measurement; more envisionment practices; “Qualculation”
- Potential roadblocks / enablers:
  - Calculative cultures
  - Professionalization and regulation of risk management