Book review

Managing Risk in Extreme Environments

by Duncan Martin

Kogan Page, London; 2007; ISBN 978 0 749449 45 2; 192pp; hardback; £29.99

There is no doubt that *Managing Risk in Extreme Environments* by Duncan Martin is a cracking good read. For all those working in risk management, a set of nine case studies of literally life-or-death situations and the people dealing with them is a salutary reminder of the meaning of 'risk', especially to those working in offices in financial institutions. Whether or not the lessons carry over easily to the financial environment is examined below, but as risk 'war stories' go, these are hard to beat.

After having read the book and being intrigued as to what the author was doing in Kabul over Christmas in 2004, which is, after all, not the most popular holiday destination, this reviewer met the author. The answer to the question unfortunately is not as exciting as the question itself but the other obvious questions were why and how was the book written. For example, how does one go about getting an interview with the deputy manager and the chief shift operator at the time of the Chernobyl disaster?

After an already successful career in consulting and banking and having travelled and worked, climbed and skied in many far-flung places, Mr Martin got the idea of the book. As so often happens, luck played its part — in this case in the form of a Ukrainian colleague who had contacts in the energy industry who were able to arrange the meetings with the former Chernobyl workers. The book took off from there, as one can imagine the request for the next interview becomes easier when the previous one was with people in close contact with one of the world's great disasters.

In addition to the explosion at Chernobyl, the book covers SARS and the potential bird flu pandemic; forest firefighting; mountain rescue; humanitarian aid work in extreme conditions; hurricane and flood; earthquake; security operations in Iraq; and working in the extraction industries. So that readers get to hear from the people who not only know about the extreme conditions but have actually been there, the author has located and interviewed the key people responsible for action in these crises. This makes a difference and adds to the immediacy of the narrative and the vibrancy of the book.

After a short introduction, the book launches into the first case study — 'epidemic'. After each case study the author tries to draw conclusions and the lessons learned. He also tries to carry the analogies across to his own, rather narrow world of investment banking. If there is any deficiency in this splendid book it is only its failure to recognise the rest of the (non-investment banking) world, which risks giving it a slightly insular feel. One also cannot help feeling that it is not wholly fair to liken the work of people who dedicate and risk their own lives in the noble cause of saving those of others, to the investment banking and hedge-fund businesses, which, after all, are solely dedicated to making very rich people even richer. However, this is more than compensated for by the detail and graphically illustrated facts of inherently fascinating situations.

Compared with the plethora of complexity one can read in the risk literature, Mr Martin uses an admirably simple framework to view the activities described, which he terms 'think, plan, do'. The thinking aspect is essentially the establishment of risk appetite and the 'what could go wrong' analysis. In terms of planning for major incidents, the head of emergency preparedness for the UK NHS has commented that 'you can't anticipate everything'. Clearly this is true, although it might be putting it too strongly — indeed, *trying to anticipate* everything may actually be essential. Here, the thinking element might well be replaced to give us an 'anticipate, plan, do' cycle. Risk management, especially at the extreme end, is above all about anticipating disaster, then planning for it and doing what is needed.

The planning and doing aspects of risk management need to be conducted with a critical, open mind because doing what may seem logical, if not fully thought through, may have unforeseen side effects and undesirable consequences. This is brilliantly illustrated in the wildfire case study. The intuitive thing to do in managing wildfire risk is to rigorously suppress all fires, which has been the policy in those forests in proximity to habitation and most prone to fire. However, as with so much of man's ill-judged interference in the natural world, the effect of 80 years of fire prevention has been to change the fire pattern from regular small fires, an essential element of the natural balance, into what we call in risk parlance, rare, high-severity events — in other words, infrequent, massive, devastating destructive, uncontrollable conflagrations.

This is also illustrated in the section on flood. The New Orleans catastrophe was made worse by the Mississippi river gulf outlet, a man-made canal which funnelled water right into the heart of the city. Of course, if you have the option, then the most logical thing to do is avoid living next to the natural disaster risk itself — yet Tokyo, one of the world's most important cities, is built precisely over the most earthquake-prone area on the planet (look at a Google tectonic plate map to see it). Meanwhile, in the UK there are amazing plans to build many thousands of houses in areas where it is known with certainty that there will be serious flooding. More topically, one could ask what people were thinking when they decided it would be a good idea to buy collateralised debt obligations based on loans to poor people who were defined by their inability to repay their mortgage loans, and who subsequently did not repay them.

The last two chapters pull together the main themes identified earlier and the author's 'seven laws of extreme risk management' are stated. He makes an excellent job of this and provides a wealth of one-liners that will be of tremendous help to risk managers in putting forward their message.

A selection of the key messages include: 'the worst risk management systems create "moral hazard" where individuals get the reward but not the risk and hence have an incentive to take as much risk as they can get away with'. Very true, and one presumes he was thinking in particular of the banking industry.

Next, one should recognise the boiled frog syndrome, where 'the risk rises slowly like a rising tide'. Here, the risk is easy to rationalise away, and may end up well beyond the initial appetite.

The exhortation to be wary of unintended consequences and use scenario analysis (although he does not use the expression) is well made, as is the observation that risk managers 'need a loud voice and a thick skin'.

All in all, this is an excellent contribution to risk management and wonderful source material for risk managers and trainers looking for material to spice up and reinforce the message, and for executives and decision makers (one would hope) to get it.

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April 2008

Afternote

This review was originally written in April 2008 before the full force of the financial crisis had struck. But with the strong emphasis on forward-looking risk management, rather than statistically-based analysis, this book is very timely and hopefully will be read by future teachers of the financial industry because the last ones clearly did not get the message.