

Beyond the comfort zone

Institutional inertia is one of the abiding forces in human experience, especially in governmental institutions. Sadly, such inertia is likely to hinder much-needed revisions in the practice of financial risk management, argues David Rowe

Historical examples of the pervasive power of institutional inertia are many. For me, one of the most compelling was the way senior ranks in world navies resisted the transition from sail to steam in the mid-nineteenth century. One would think the superior speed, manoeuvrability and reliability of ships driven by steam-powered locomotion would be obvious. Rather amazingly to later generations, men whose professional experience was exclusively shaped in the age of sail often refused to recognise this. Such was the power of institutional inertia, and its power remains largely undiminished to this day.

In the wake of the global financial crisis, it should be obvious that important changes are required. In fact, many changes have been instituted or are planned under the names of Dodd-Frank, Basel III and other legal and regulatory initiatives. But I fear the core of risk management thinking remains trapped in a pre-crisis mindset. For more than 25 years, we have developed ever-more complex and supposedly 'sophisticated' quantitative techniques for measuring and monitoring risk. Virtually all these, however, focus on capturing short-term volatility of earnings in light of market conditions and the configuration of an institution's exposure. If we have learned anything from the past five painful years, it should be that tail risk is qualitatively different from daily market volatility.

A significant shift in time, effort, resources and – most importantly – attitude is necessary if risk management is to deal more effectively with the next crisis. As I have argued since the early days of this column, uncertainty – in Frank Knight's sense of the term – is fundamentally different from risk (*Risk* December 1999, page 57). Knight characterised 'risk' as randomness that is sufficiently stable to be insured. A sufficiently large number of recurring realisations of potential outcomes is available to be observed, and the randomness of these outcomes is sufficiently stable to allow diversification across a large enough pool of outcomes to work its magic. Uncertainty, in Knight's framework, refers to unknown contingencies where the above conditions do not exist. Defined in this way, it should be clear that tail risk of

the kind we have come to refer to as Black Swans falls into what Knight defines as uncertainty. As such, literally by definition, it is not amenable to analysis by traditional statistical or actuarial techniques. I have a healthy respect for Nassim Taleb's achievement in formulating and popularising a powerful metaphor. Nevertheless, I disagree with his approach of viewing Black Swans as simply unlucky random draws from a fat-tailed distribution.

It seems to me that a far better perspective is to recognise that Black Swan events most often flow from some kind of structural shift. Most often, this involves circumstances – such as a natural catastrophe or a political upheaval – that effectively eliminate the statistical independence of realisations from the underlying random process. In essence, market price realisations in such circumstances represent a draw from a different distribution than the one that prevailed when statistical independence of the underlying buy and sell decisions was a reasonable approximation to reality. Viewing these as unlucky draws from a fat-tailed distribution can encourage trying to address tail risk by tinkering with our distributional assumptions, rather than relying on qualitative structural analysis based on the experience and expertise of country risk officers, macro-economists and market analysts, among others.

Not surprisingly, this blindness to the need for a fundamental restructuring of our priorities in risk management is not confined to the private sector. I have been told by a US colleague that his bank finds very little receptiveness among regulators at the Federal Reserve for a more subjective and less quantitative approach to diagnosing and managing tail risk. On the contrary, there is a continued insistence that stress testing must be heavily quantitative and analytically based. Obviously, such an approach can seem to make the regulators' job easier: they can apply 'objective' measurements rather than having to grapple with the subjective uncertainties that lie at the heart of Black Swans.

Much of this betrays the comfort zone of so many quantitatively orientated professionals who have entered the risk management field over the past quarter of a century. Admittedly, there is no compelling alternative for dealing with tail risk that is as obviously superior to distributional analysis as steam power was to sail power. But unless they overcome the blindness imposed by their experience and expertise, many risk professionals will eventually look as out of touch as those navy officers who thought the age of sail would go on forever. ■



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