

Revenge of the economists

Having left full-time practice as a business economist more than two decades ago, David Rowe argues that the profession is poised for a resurgence

As many readers know, I spent 13 years as a macro-econometric model builder and forecaster. In late 1986, I made a mid-career transition into financial risk management, eventually working at two large banks. For several years, I was a permanent attendee at the market risk committee of one of those banks. The two-hour agenda typically started with a scheduled 10-minute briefing by the bank's economics department. Often, however, the committee chairman would begin with a statement like: "Let's make this first item quick – we have many important issues on today's agenda." I must confess my reaction at the time was one of relief, accompanied by the quiet thought: "Thank heavens I'm not doing economic forecasting any longer!"

In retrospect, I think this experience illustrates an important weakness in the way financial risk management has evolved over the past two decades. A central lesson from the recent economic crisis is that we have become far too micro-focused. We concentrate on specific markets, and estimate volatilities and correlations across markets using comparatively short data histories. We apply methods from classical statistics to estimate parameters based on anything from a few months to a few years of historical data. Perhaps most importantly, as Riccardo Rebonato recently pointed out at a conference, the models we use in financial risk management are radically reduced form constructs: they are effectively descriptive not structural. We must never forget the fundamental premise of classical statistics is that we are observing a *stable* random process, while the pervasive reality of social systems is that they embody *unstable* random processes.

I am among those who think Nassim Nicholas Taleb has performed a valuable service by hammering home the importance of rare, high-impact events. Despite that, I think his approach may lead us in some mistaken directions. He views what he famously calls black swans as resulting from an outlier in the far tail of a prevailing distribution. This treats an extreme tail event as an exogenous shock imposed from outside the system. In my view, such a shock is more often the result of a systemic change – a catastrophic failure – endogenous to the


system. Merely examining price volatility and correlation in a reduced-form fashion does not give us meaningful insight into structural stresses that may result in such catastrophic failures.

We have to pay much more explicit attention to the potential consequences of such stresses – what Stuart Turnbull at the Bauer College of Business, University of Houston, insists should be called 'dark risk'.

This is where traditional macro economists have an important role to play in the future of financial risk management. Today risk management is dominated by people trained in engineering and the physical sciences. Consistent with this, most of our current risk assessment methods reflect the mindset and assumptions of these disciplines. We don't apply judgment in analysing data generated by physical systems. Rather, we develop mathematical models and test them by their conformity with such observed data. Applying subjective judgment almost seems like cheating.

In the social scientific realm, however, any permanent stochastic stability (if it exists at all, which I doubt) is buried many layers deep in the individual and collective psyche. In this area, formal statistics can be valuable, but we ignore their limitations at our peril. Especially when underlying structural conditions are in transition, we need to respect the role of intuition and judgment based on broad experience and a knowledge of history. Myron Scholes has used the term 'volatility time'. By this, he means the pace at which decisions need to be made to be effective. When the world is unstable, volatility time speeds up – decisions need to be made in shorter and shorter chronological time intervals. In such circumstances, there is no opportunity to recalibrate our formal mathematical models. Heuristic models based on experience and judgment come to the fore. I believe this is where macro economists have much to contribute.

Too much of traditional macroeconomic analysis has been focused on point forecasts, with success being measured by *ex post* accuracy. A much more important contribution would be to incorporate the structural insights, analysis of potential feedback loops and longer-term historical perspective of macro economists in an ongoing senior management dialogue on potential sources of serious market disruptions. Thinking through such structural issues and alternative scenarios, assessing how they might play out and what defensive actions could limit their damage to our institutions, is an essential extension to current risk management practices, and one to which macro economists can make an important contribution. ■



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