Adversity Management LLC

The Acceptability of No-loss Errors and the Pickering Trap

The British Olympic sprinter Craig Pickering, writing about his blown baton reception in the 4x100 meter relay in the 2008 Olympics, noted that the error he'd made by starting too soon as he saw the incoming runner was by no means inconsistent with how things had gone in training.

While the mechanics of a relay handover do not matter here, the key problem Pickering identified was that because they had always got away with mistakes in practice – the handovers always working out fine despite the mistakes – they did not make any serious attempt to correct them. Pickering used the term "normalisation of variance" to describe the thought processes of coach and team, that is, that variations from the plan were now regarded as normal because the outcomes did not suffer. This phrase being too liable to confusion in a risk management context, I prefer to use the term "acceptance of errors".

The point is that, under pressure, the "system" of the two runners did not perform as it should have done, because in training, it was acceptable for errors to occur and not to be corrected.

When a trading or risk management model or system makes errors that cause no losses (or at any rate, modest to ignorable losses) to the company concerned, it is too easy to fall into what I have called the Pickering Trap, which is to accept the errors and hence continue to use the model and system unchanged. Because the errors did not cost the company anything it is too easy for management to ignore that things were occurring which should not have occurred (or, things which didn't happen that should have done).

It is, of course, a natural human reaction to reject modifications to a process if there were no adverse consequences to a failure: a bad driver will not change his driving if he braked too late but there was no accident! But a company cannot afford to operate like this.

For the same natural human responses, it is hard to explain why one should be concerned that a Value-at-Risk (VaR) model consistently reports a 1-day-in-100 loss of $50mm while the firm itself has not lost more than $40mm any day in the last 500. Indeed, the likely response would be, "this shows how conservative our model is!" when a more accurate, though less easy to hear response should be, "our model isn't working properly".

In a risk management context, it is, in my experience, likely that such no-loss errors would almost invariably be received with approval rather than concern, purported conservatism being regarded as a Good Thing (*sic*). However, such complacency is not warranted when the reason for the error is not known.

In the case of this VaR model, perhaps the model always overstates the risk of a given position or portfolio in one direction and understates it in the other (as may happen with options or highly convex securities), and for the previous two years the company's portfolio is on the side that leads to the overstatement. And then the portfolio's direction is changed, leading to catastrophe as the true risk is substantially understated by a model that management believes to be conservative – which is a kind of double-whammy.

I note that Pickering Traps do not necessarily apply just to models or systems. They can be found anywhere errors have a potential P&L impact but where for whatever reason no losses have resulted therefrom. This can range from improper verbal confirms after a trade to inadequate credit reviews.

Hence the analysis of risk management and other practices at any company should include considerations of whether management falls for Pickering Traps by brushing aside or accepting no-loss errors.

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