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Why risk management fails during crises

and how to respond

Summary
Traditional risk management is ill-equipped to respond to crises, and the current turmoil proves it once again. Risk management is geared to perform analyses of detailed information on counterparties, trades, loans, settlements and all manner of financial transactions, *provided* that everything goes according to plan. In a crisis, however, *nothing* goes according to plan. The analysis then needs to shift to simpler models with relaxed assumptions and ones that acknowledge the fact that there is fundamental uncertainty rather than statistical uncertainty. This also implies that alternatives may need to be sought for the data that was used hitherto and that frequent re-assessments of the business and risk environment needs to be considered.

Dear reader,
In most discussions on the current economic climate the instrument of risk management is strangely absent. Examples of these discussions range from the almost daily updates on country ratings to the unwillingness of banks to lend and speculation on the next company to fail or country to default. Sadly, these discussions are restricted to which technocratic governance model is best suited to deal with the crisis. In fact, it turns out to be mostly ideologically driven. Opposite the firm believers in the 'big bazooka solution' are those that ridicule the very idea; likewise, opposite the desperate call for a lender of last resort in the Euro-zone are those who claim that such a solution will only invite moral hazard.

Since the debate is ideologically driven, it represents a view regarding macro-economic mechanics in which risk management and its principles are strangely absent. That may be because risk management is not well-equipped to deal with fundamental uncertainly. Unlike statistical uncertainty, which is the chief domain of risk management, fundamental uncertainly requires us to acknowledge that we understand very little of the world and that we are better off analysing various scenario's, including unusual inputs, models, environments and possible outcomes. There are some approaches that start to tackle these issues, as we shall show below.

Three observations and recommendations
There are three areas where risk management can make a difference in crisis management, for macro-economic policy makers as well as for individual institutions. These areas concern the models used, the data required and frequency and focus of the review process.

A. **Models used**. During a crisis - be it a liquidity crunch, a sudden series of defaults, a bank run, a market meltdown or a natural disaster – the first casualty is business-as-usual. And since many assumptions regarding models and data have to be relaxed, complex models should give way to less complex ones requiring fewer assumptions about inputs, the overall environment, the parameters and the relations between them. Rather than using a rating model that distinguishes 100 different assets, each with their own historic characteristics and associated assumptions, it would be better to use a model that distinguishes only a handful of asset classes. Such a model will not be more accurate, but accuracy in times of crisis is not even on

the menu. Rather, the outcomes will need to be interpreted using a generous margin of error. Although model that generates a wide range of outcomes and gets it roughly right is in fact preferable to a detailed one that works within narrow margins and that gets it exactly wrong.
Recommendation: Always develop a simpler version of risk management models alongside the complex one. This simpler version should not be aimed at greater accuracy but rather at generating a wider range of outcomes using less stringent assumptions.

B. **Data required**. Models can only be simplified so much. An additional step is to scale back on data requirements. There is often time pressure to adapt to changing conditions, and there is often no time available to gather all the required data to run detailed models. Indeed, not all data, and very little reliable data may be available. For that reason, it is good practice to have proxy values (preferably from stressed scenarios) to substitute which will allow models to be re-run, even when data is lacking or not trustworthy.
Recommendation: Develop proxy values for volatile data that can be used in the absence of refreshed information. These proxy values should be taken from highly stressed scenarios.

C. **Frequency and focus of the review process**. The financial environment is highly volatile during crises. Typically, at the start of a crisis, there are sudden changes and scene shifts. This is followed by a series of shocks and ground swells that require a re-alignment of means and goals. This repeated re-alignment is something that needs to take place to ensure that the course remains correct and that earlier recommendations remain valid. This is one area where risk management can play a role to identity the triggers that set in motion the review process. In addition to setting the triggers, risk management should also prepare *what* to review exactly in the light of changes.
Recommendation: Develop a trigger list that sets in motion the review process of high risk areas, risk models, credit and market risk evaluations, client data, product specifications and any aspect that is likely to experience abnormal shocks.

These recommendations have implications for all four traditional risk management approaches. Whether we decide to Avoid, Control, Accept or Transfer risk, we need to be able to continue operating. That will only be possible when we have risk instruments that can be released from their business-as-usual specificity by relaxing assumptions, can operate with less data under greater uncertainly and are ready to be overturned in parts when situations change.

Conclusion

In the best of worlds, when a disruption occurs, we reach for the business continuity plan and simply follow it. This is what common BCM suggests for the business side. For the risk management function itself, such a plan should include how risk management operates under stressed situations. In preparation for that, risk management should develop reduced models that relax assumptions which may no longer be valid, it must identify proxies as substitutes for data that is potentially unavailable and is should draw up a trigger-list of events that set in motion a review process to ensure that shocks to the operating environment are reflected in the risk models.