

Perspectives

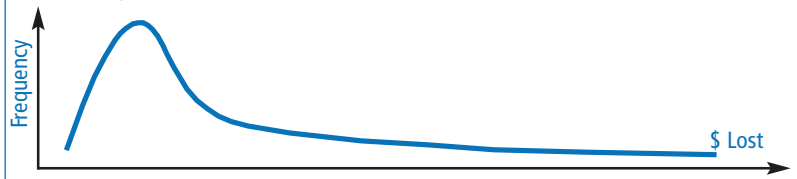
by

This special edition of *The RMA Journal* is devoted to operational risk management. The articles contributed here cover many subjects, hopefully of interest to both small and large financial institutions and to professionals who incur, manage, and oversee operational risk.

So it seemed appropriate by way of introduction to write about different perspectives on operational risk. For this purpose, I drew inspiration from one of our authors, Mike Mainelli, founder of ZYen, who developed a chart of losses with a great deal of information on it. Generally, it is a bad thing to put too much information into charts, but this one seemed so ingenious that I ended up developing a version of it for this overview article.

It starts with a simple and familiar curve—one that depicts how often losses of different sizes occur or, if you like, the cumulative loss over a given period like a quarter—a (cumulative) frequency or a probability distribution (see Chart 1). It shows larger losses

Chart 1: Large losses occur less often than small.



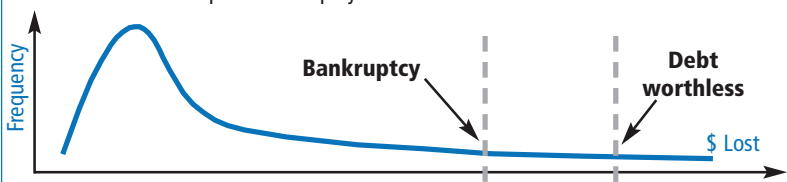
generally occurring less frequently than smaller ones. (In real life, there are tail events that cause the curve to blip upward from time to time as you go out toward the right-hand tail.)

There are two important thresholds associated with this curve for any financial institution. The first of these marks the point where, as you move from left to right, the loss represented is large enough to wipe out all of the institution's capital—where it becomes bankrupt. Assets no longer exceed liabilities: at this point its equity is worthless. While debt will still have some value, it diminishes in value if losses are larger still until it too becomes worthless at a point where these losses wipe out all the assets of the institution—the second threshold.

Losses larger than that are associated with events that destroy more than the gross value of the institution—for example, the value of customer assets or value in other institutions (see Chart 2).

Who cares at that point, you might say? Well, the regulatory authorities, charged with maintaining the safety and soundness of the financial system, most certainly care. (So do the infected customers and institutions.) Indeed, before you get to that second threshold, it is worth noting that the main people who care most about loss change as you move from left to right along the curve—from middle managers, who are charged day-to-day with controlling loss; to senior management, who worry about larger, less frequent threats to the organization; to directors and shareholders, who continue to worry even after they have replaced senior management; through to the debtholders and the regulators, who both have a lasting interest in the management of events, even after the interest of shareholders

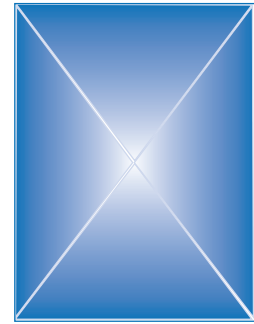
Chart 2: Thresholds of pain: bankruptcy and zero cents on the dollar.



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on Operational Risk

Charles Taylor



and their representatives is long gone (see Chart 3).

Now, one might think that we should regret losses more as they get greater (see Chart 4). But because the “we” is different for losses of different sizes, regret at different levels of loss probably looks more like a sawtooth than a gradual increase from left to right (see Chart 5). If we consider for a moment the “senior management” regret curve, what it tells us is that they regret additional increments in loss more and more as they approach the point where they get sanctioned—potentially fired—by the CEO or by the board. From that point, their regret cannot increase (assuming no one on the board has connections with *The Sopranos*), so it plateaus out.

Three things follow. First of all, there are regions like Region A on Chart 6 where interest in loss is likely to be lower than in regions immediately to either side of it: Mid-management has already been sanctioned and senior management is not yet too concerned. Don’t pay as much attention, we might say, to collecting data, reporting incidents, or predicting losses in this range as in others: No one is all that interested. Second, in Region B, senior management is under a great deal of pressure and therefore faces a strong incentive to lie about losses

Chart 3: Who cares most depends on the size of loss.

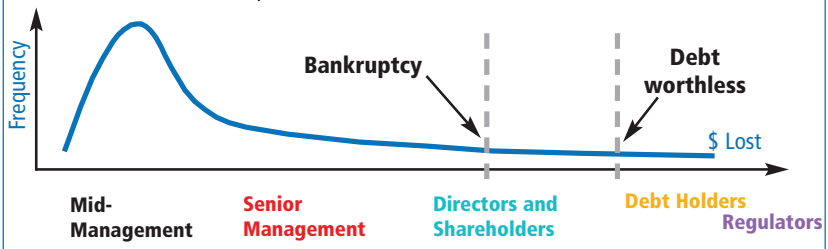


Chart 4: Does regret rise steadily with loss?

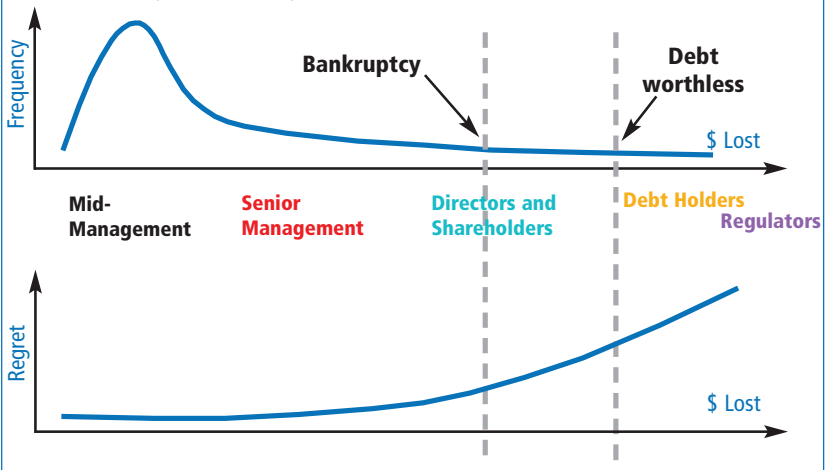
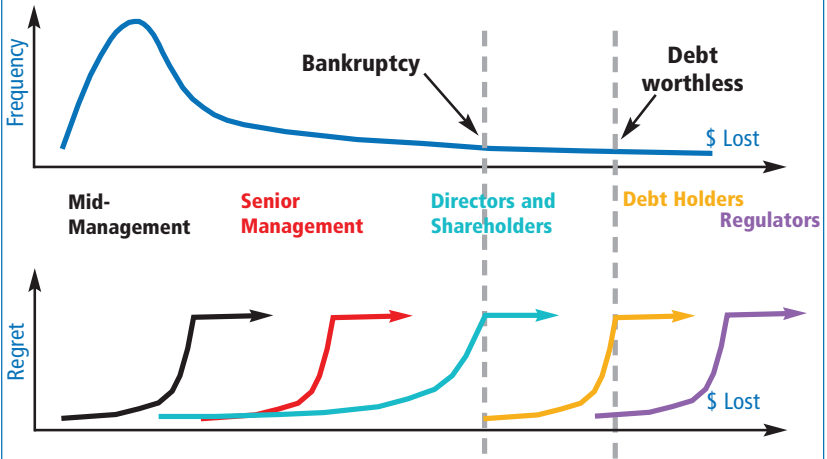
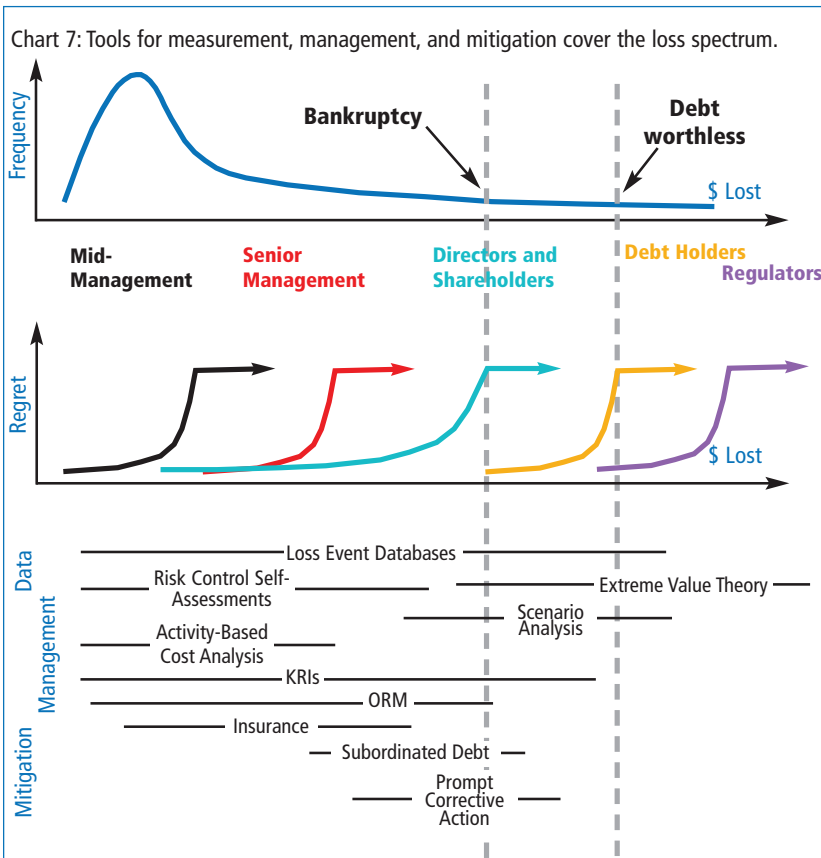
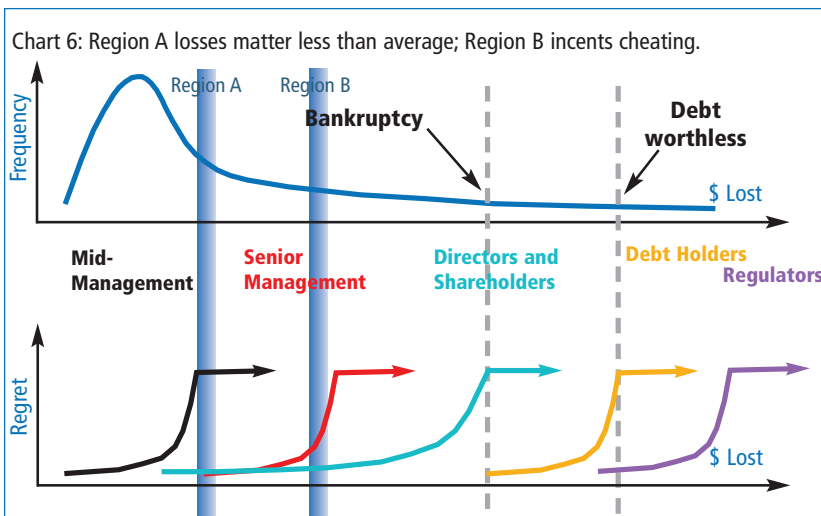


Chart 5: For individual groups, yes; for everyone all together, no.





and maybe double up on some risky strategy—the Enron region of risk, if you like. The board should note the losses within this range that are most likely to present serious governance issues.

And third and perhaps most importantly, Chart 6 brings home how regulators, boards, and managements need to focus their understanding and influence over risk in the areas that other groups

are likely to address least (or least honestly). For example, for regulators, it is the extreme tail.

So if these are the interactions between different interest groups, what tools are available for measuring, managing, and mitigating operational risks in each range? Chart 7 highlights many of these for data gathering, for managing risk, and for mitigating it. And, as we can see, different tools are more useful at different ranges of loss and therefore perhaps of more interest to different groups than to others.

These tools and management techniques are a significant part of what the articles in this issue cover. Others delve into the psychology of the different groups represented in Chart 7 and into the particular issues currently concerning different groups.

Hopefully, the insights you will gain from these authors will help you understand and manage your risks better in the future—RMA’s overall goal in life—whatever the group of stakeholders and whatever the size of institution to which you belong. □

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Notes

1 Ron Dembo, the founder of Algorithmics, popularized the idea of “regret” for understanding risk and risk management.