CARRIED AWAY BY MATHEMATICS

by Steve Brown

As humans, we like to have everything fit into nice neat little boxes and for our analysis to make sense. That is why, over the years, large banks have used fancy models steeped in probability theory and statistics. An oft-used method of managing risk is to calculate the standard deviation ("SD") of a data set to determine variability or dispersion. Since it is way too early to delve into statistics, suffice it to say that the SD is simply a calculation that tells us how tightly data is clustered around the mean or average. When the data is tightly bunched together, the SD is small and when the data is spread out from the mean you have a large SD.

Standard deviation is important because for years banks have used it as a measure when controlling risk. When measuring SD, note that 1 SD away from the mean in either direction will account for about 68% of the data, 2 SD will capture all 95% of data points away from the mean and 3 SD will account for about 99%. In basic terms, standard deviation is used to calculate how much variation there is from the mean.

This all works well most of the time and it is easy to understand. As such, we feel pretty comfortable when someone says the risk is contained within 2 standard deviations. However, the problem is that SD relies on the premise that over time returns follow a normal distribution, with returns above average as likely as returns below the average and that there are few outlying events. Most importantly, statistical models are built upon the premise that forward events will occur with the same frequency and magnitude as they have occurred historically. As we have seen over the last 18 months, this fact doesn't always hold true, as we registered several 25-standard deviation moves in certain risk measures. Part of the problem is a narrow window of historical observations (financial models usually look back a decade versus many geologic models that look back thousands of years). More must be done to analyze risk, so we thought throwing a little less science and a little more common sense might help community bankers in the field without requiring one to purchase a white coat, beaker and those cool CSI goggles.

Some things just make sense to do when you think about risk in any company. One of the most basic is not to wander into products or markets that are not understood. This is what the thrifts did in the 1980s and the results were catastrophic. Another key thing to understand takes more work. Here, bankers must believe only part of what they read and hear. Stick with the fundamentals and know when you don't understand something. Next, know that the loss you take next will probably not be anything like the one you just took. Risks are everywhere and the one that hurts the most is what you probably expect the least.

These are all just good plain common sense thoughts, but some research has been done along these lines as well. For instance, a study by Yale finds that there are probably 5 events that occur in everyone's lifetime that are more important than anything else that has happened. By focusing in on these and moving at that time to make money, you stand a much better chance to finding your road to riches.

Another thing we have found from the most recent economic and industry events is that volatility leads to more volatility and that just because you have diversification does not mean everything you own cannot and will not lose value all at once.

There is no magic potion you can drink or model you can follow that will help you in the current situation except to say be careful and remember the impossible can eventually happen. Be prepared for anything as it may one day occur.

BANK NEWS

Person of the Year

The Fed Chair and "most powerful nerd on the planet," is Time's Person of the Year.

Branch M&A

Liberty Savings Bank ($1.4B, OH) will sell 2 branches to Colorado Community Bank ($482mm, CO). Colorado will purchase each branches retail deposits for a 3.3% and 2.5% premium, or $1.9mm. In addition, Liberty will sell a small amount of loans.

M&A Canceled

Porter Bancorp ($1.7B, KY) has dropped its offer to purchase Citizens First ($341mm, KY).

FDIC

To handle the oncoming bank closures, the FDIC will hire 1,643 more employees and expand its operating budget by over 50%.

Overhang

The supply of unsold homes in 27 major metropolitan areas fell 2.4% in Nov compared to Oct and was down 28% compared to the same period last year, according to ZipRealty.

Finance Survery

A survey of financial professionals' finds 46% think the recession will have a double dip, 74% say recovery won't come until mid 2010 at the earliest, and 57% are still facing high levels of uncertainty in their business.

Pay

The pay czar placed salary caps for most second-tier executives at $500k for firms that received TARP funds.