SHADOW LOSS ANALYSIS

The **MST Loan Loss Analyzer (LLA)** platform provides a reliable, repeatable, efficient process for determining the allowance for loan and lease losses while satisfying accounting and regulatory requirements - currently and under CECL. The LLA is the leading solution for automating the ALLL, rich with capabilities that not only streamline the allowance process but provide a wide array of options for managing portfolio risk.

In much the same way an institution uses shadow loan processing for dual accrual accounting of commercial loans, a second or "Shadow Loss Analysis" ALLL methodology provides greater assurance of accuracy under the current incurred loss accounting standard for estimating the ALLL. Moreover, the Shadow Loss Analysis tool allows the institution to test potential models for estimating their allowance under the impending CECL (Current Expected Credit Losses) standard.

In a Shadow Loss Analysis, the financial institution manages a separate and different loss model in addition to its existing model, or manages the same model with different assumptions, such as a longer loss emergence period or different look-back period. Basically, Shadow Loss Analysis serves as a check on an existing model. A second quantitative model applies a "reasonableness" test to the first calculation. While the results of the two are not expected to be identical, the second model allows the institution to note the difference between the two and track it over time. If the two diverge substantially, the trend could alert the institution to problems with its current methodology or at least to questions that need to be addressed.

Whatever methodology the institution chooses to test for CECL in a shadow analysis, it should provide information beyond its current model. Additional information allows the institution to see trends in its portfolios that are hidden in a homogeneous loss approach. Such trends could alert the financial institution to a need for additional qualitative adjustments or the use of a loss emergence period. Or they could signal a need for something as fundamental as changes in its lending policy.

Shadow analyses using forward-looking projections that will be required under CECL tell the institution how expected losses will impact its allowance, and as such, provide information key to future growth, capital planning and overall profitability. Shadow analyses of various models help the institution choose an appropriate CECL-compliant model. A CECL-compliant loss analysis model that has been tested as a "shadow" will ultimately be more defensible and better documented than an untested, unproven model.

Shadow Loss Analysis also helps with the documentation and justification of qualitative factors. Using the quantitative analysis from an existing historical loss model and tracking the changes over time, a shadow migration loss analysis model could justify qualitative factor adjustments for "Quality of Loan Review" or "Volume and Severity of Adversely Graded Loans." If the shadow loss model takes a PD/LGD approach, the changes in LGDs could justify the "Changes in Value of Underlying Collateral" factor as changes are tracked over time.

ESTIMATES