Operational Risk Monitoring and Control

The sampling and verification methodology is really just an application of conventional risk-assessment and quality control practices to mortgage lending and the mortgage securitization process. Looking back, a risk assessment that could have limited or even prevented the subprime mortgage crisis would have involved recognizing that bad subprime lending is a potentially catastrophic operational risk and that following the loan-quality inspection steps described in chapter 3 could have educated the market regarding the quality of the mortgages it was originating. Looking forward, a risk assessment that can limit or even prevent future lending crises involves recognizing that bad lending of any sort, performed on a large enough scale, is a potentially catastrophic operational risk.

Recognizing the threat of bad lending is just the first step in preventing a lending crisis. Conducting a rigorous loan-quality inspection and reporting process is a necessary second step. Following the procedure outlined in chapter 3, the loan-quality control process will verify several loan-level attributes of a random sample of loans. The mean and variance from this sample allow us to infer important credit-risk characteristics for the entire pool of loans. Significant differences between the inferred population characteristics and the reported characteristics identify loan pools with potential
problems and the location of particular problems in the loan underwriting process. For instance, the mortgage inspection methodology described in chapter 3 examines the LTV ratio, the DTI ratio, and the borrower’s credit score. Marked differences between reported and verified LTV would suggest that there are significant problems in the property appraisal segment of the mortgage underwriting process. Similarly, marked differences between reported and sample DTI ratios would indicate problems in the debt and income verification segments of the underwriting process.

LTV, DTI, and credit scores are critical characteristics for other loans as well, such as auto loans, commercial real-estate loans (mortgages), and student loans. While all three measures are of value in assessing the quality of auto loans and mortgages, student loans may lack an LTV ratio because of the difficulty in assigning a dollar value to an education. Measures of debt, income, and credit scores are the same across all loan types. The market value of any physical asset, such as real estate or a vehicle, is the appropriate measure to determine value for LTV purposes. This is true at origination and to determine current LTV.

As was the case with the subprime mortgage crisis, securitization is a crucial factor in determining the potential extent of the damage that can result from bad lending in any asset category. If a lending institution holds all of its originated loans in its own portfolio, bad lending could still be a potentially catastrophic operational risk, but only for that lending institution. When a loan originator transfers a bad loan into an asset-backed security (ABS), the exposure to potential catastrophe associated with that loan transfers to the ABS owner. Furthermore, because of the nature of the securitization process and liability, various risk exposures transfer to the ABS issuer and the servicer in addition to the ultimate investor.