Project Background

A major national mortgage originator with a large Home Equity Line of Credit (HELOC) portfolio was concerned defaults might significantly increase given impending 10-year anniversary-date rate resets on a concentrated portion of its portfolio, which was originated just before the housing downturn.

Since this was a unique situation, the client was looking for an independent perspective to enhance its current models. The client sought WFA-CFAR's help to model HELOC defaults and identify the determinants of defaults so it could gain a better understanding of the potential magnitude of any looming defaults.

Analysis Description and Conclusion

The client shared anonymous borrower-level data from its HELOC portfolio. The student team, with oversight from Professor Gopalan, developed a predictive model to project defaults and tested it within the dataset. The students also compared both the in-sample and out-of-sample performance of their model and the lender's internally developed model. The student model outperformed the client model.

The students also identified the economic rationale as to why their model outperformed. The lender found the student case persuasive and, in response, changed its in-house default prediction model.

>> The initial analysis was so useful that the client asked the Olin team to undertake a second related study on HELOC borrower behavior patterns.

CASE STUDY:
Home Equity Loan
Default Study

FACULTY ADVISOR: Professor Radhakrishnan Gopalan, PhD (Finance)