§ 652.65 Risk-based capital stress test.
You will perform the risk-based capital stress test as described in summary form below and as described in detail in appendix A to this subpart. The risk-based capital stress test spreadsheet is also available electronically at http://www.fca.gov. The risk-based capital stress test has five components:

(a) **Data requirements.** You will use the following data to implement the risk-based capital stress test.

(1) You will use Corporation loan-level data to implement the credit risk component of the risk-based capital stress test.

(2) You will use Call Report data as the basis for Corporation data over the 10-year stress period supplemented with your interest rate risk measurements and tax data.

(3) You will use other data, including the 10-year Constant Maturity Treasury (CMT) rate and the applicable Internal Revenue Service corporate income tax schedule, as further described in appendix A to this subpart.

(b) **Credit risk.** The credit risk part estimates loan losses during a period of sustained economic stress.

(1) For each loan in the Farmer Mac I portfolio, you will determine a default probability by using the logit functions specified in appendix A to this subpart with each of the following variables:

(i) Borrower’s debt-to-asset ratio at loan origination;

(ii) Loan-to-value ratio at origination, which is the loan amount divided by the value of the property;

(iii) Debt-service-coverage ratio at origination, which is the borrower’s net income (on- and off-farm) plus depreciation, capital lease payments, and interest, less living expenses and income taxes, divided by the total term debt payments;

(iv) The origination loan balance stated in 1997 dollars based on the consumer price index; and,

(v) The worst-case percentage change in farmland values (23.52 percent).

(2) You will then calculate the loss rate by multiplying the default probability for each loan by the estimated loss-severity rate, which is the average loss of the defaulted loans in the data set (20.9 percent).

(3) You will calculate losses by multiplying the loss rate by the origination loan balances stated in 1997 dollars.

(4) You will adjust the losses for loan seasoning, based on the number of years since loan origination, according to the functions in appendix A to this subpart.

(5) You will further adjust losses for loans that collateralize the general obligation of Off-Balance Sheet AgVantage volume, and for loans where the program loan counterparty retains a subordinated interest in accordance with appendix A to this subpart.

(6) The losses must be applied in the risk-based capital stress test as specified in appendix A to this subpart.

(c) **Interest rate risk.** (1) During the first year of the stress period, you will adjust interest rates for two scenarios, an increase in rates and a decrease in rates. You must determine your risk-based capital level based on whichever scenario would require more capital.

(2) You will calculate the interest rate stress based on changes to the quarterly average of the 10-year CMT. The starting rate is the 3-month average of the most recent CMT monthly rate series. To calculate the change in the starting rate, determine the average yield of the preceding 12 monthly 10-year CMT rates. Then increase and decrease the starting rate by:

(i) 50 percent of the 12-month average if the average rate is less than 12 percent; or

(ii) 600 basis points if the 12-month average rate is equal to or higher than 12 percent.

(3) Following the first year of the stress period, interest rates remain at the new level for the remainder of the stress period.
§ 652.80 When you must determine the risk-based capital level.

(a) You must determine your risk-based capital level at least quarterly, or whenever changing circumstances occur that have a significant effect on capital, such as exposure to a high volume of, or particularly severe, problem loans or a period of rapid growth.