You must specify in your plan the circumstances in which stock or equities may be retired. In addition to factors that must be considered in meeting the statutory and regulatory capital standards, your board of directors must also consider at least the following factors in developing the capital adequacy plan:

(1) Capability of management;

(2) Strategies and objectives in your business plan;

(3) Quality of operating policies, procedures, and internal controls;

(4) Quality and quantity of earnings;

(5) Asset quality and the adequacy of the allowance for losses to absorb potential losses in your retained mortgage portfolio, securities guaranteed as to principal and interest, commitments to purchase mortgages or securities, and other program assets or obligations;

(6) Sufficiency of liquidity and the quality of investments; and,

(7) Any other risk-oriented activities, such as funding and interest rate risks, contingent and off-balance sheet liabilities, or other conditions warranting additional capital.

§ 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 calculate loss rates on rural utility loans as further described in Appendix A.

(6) You will further adjust losses for loans that collateralize the general obligation of AgVantage Plus volume, and for loans where the program loan counterparty retains a subordinated interest in accordance with Appendix A to this subpart.

(7) 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.

(4) You will apply the interest rate changes scenario as indicated in appendix A to this subpart.

(5) You may use other interest rate indices in addition to the 10-year CMT subject to our concurrence, but in no event can your risk-based capital level be less than that determined by using only the 10-year CMT.

(d) *Cashflow generator.* (1) You must adjust your financial statements based on the credit risk inputs and interest rate risk inputs described above to generate pro forma financial statements for each year of the 10-year stress test. The cashflow generator produces these financial statements. You may use the cashflow generator spreadsheet that is described in appendix A to this subpart and available electronically at *http://www.fca.gov.* You may also use any reliable cashflow program that can develop or produce pro forma financial statements using generally accepted accounting principles and widely recognized financial modeling methods, subject to our concurrence. You may disaggregate financial data to any greater degree than that specified in appendix A to this subpart, subject to our concurrence.

(2) You must use model assumptions to generate financial statements over the 10-year stress period. The major assumption is that cashflows generated by the risk-based capital stress test are based on a steady-state scenario. To implement a steady-state scenario, when on- and off-balance sheet assets and liabilities amortize or are paid down, you must replace them with similar assets and liabilities (AgVantage Plus volume is not replaced when it matures). Replace amortized assets from discontinued loan programs with current loan programs. In general, keep assets with small balances in constant proportions to key program assets.

(3) You must simulate annual pro forma balance sheets and income statements in the risk-based capital stress test using Farmer Mac's starting position, the credit risk and interest rate risk components, resulting cashflow outputs, current operating strategies and policies, and other inputs as shown in appendix A to this subpart and the electronic spreadsheet available at *http://www.fca.gov.*

(e) *Calculation of capital requirement.* The calculations that you must use to solve for the starting regulatory capital amount are shown in appendix A to this subpart and in the electronic spreadsheet available at *http://www.fca.gov.*

[71 FR 77253, Dec. 26, 2006, as amended at 73 FR 31940, June 5, 2008; 76 FR 23467, April 27, 2011]

§ 652.70 Risk-based capital level.

The risk-based capital level is the sum of the following amounts:

(a) *Credit and interest rate risk.* The amount of risk-based capital determined by the risk-based capital test under § 652.65.

(b) *Management and operations risk.* Thirty (30) percent of the amount of risk-based capital determined by the risk-based capital test in § 652.65.

§ 652.75 Your responsibility for determining the risk-based capital level.

(a) You must determine your risk-based capital level using the procedures in this subpart, appendix A to this subpart, and any other supplemental instructions provided by us. You will report your determination to us as prescribed in § 652.90. At any time, however, we may determine your risk-based capital level using the procedures in § 652.65 and appendix A to this subpart, and you must hold risk-based