objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety.'' (10 CFR 73.55(a)), and ''* * * may make no change which would decrease the effectiveness of a security plan * * *'' (10 CFR 50.54(p)(1)). These regulations are focused on evaluation of specific areas of safety and security and do not explicitly require evaluation of the interactive effect of plant changes on the security plan or the effect of changes to the security plan on plant safety. Additionally, the regulations do not require communication amongst operations, maintenance, and security organizations regarding the implementation and timing of plant changes in order to promote awareness of the effects of changing conditions to allow the organizations to make an appropriate assessment of changes and implement any necessary response.

Because existing regulations are focused on ensuring that licensees evaluate changes to specific subject areas, and because guidance has already been developed to help ensure that those evaluations are performed appropriately, the NRC must consider carefully the effect of a revision on the existing regulations. For example, 10 CFR 50.59 is focused on ensuring safe operation of the facility by requiring evaluation of changes, tests, and experiments that affect the facility as described in the FSAR. Industry and NRC have expended a large amount of resources to provide guidance to help ensure that regulatory expectations for this area are clearly described. At this time, regulatory expectations for the implementation of 10 CFR 50.59 are thought to be well understood. Further, operations personnel, performing a 10 CFR 50.59 evaluation, may not be sufficiently knowledgeable of the security plan details in order to make an appropriate evaluation of the effect of changes, tests, and experiments on security. Current regulations do not require such an evaluation for many plant changes made to nonsafety systems, structures, and components. Therefore, it may be appropriate to provide a requirement in 10 CFR part 73 that changes to the facility be assessed for potential adverse interaction on the safety/security interface.

The NRC believes that the rulemaking process, including stakeholder comment, will better identify how the regulations should be modified and what the scope and details of a revision should be.

In summary, the NRC agrees with the petitioners that rulemaking may be appropriate for the first requested action.

NRC Plans for the First Proposed Action

Regarding the first requested action, the NRC's interoffice Safety/Security Interface Advisory Panel (SSIAP) has advised the staff on the most effective and efficient method to integrate this rulemaking with other ongoing safety/security actions to require that licensees evaluate changes to the facility or to the security plan for adverse interactions. Further, in its SRM on June 28, 2005, the Commission directed the staff to include this issue as part of ongoing rulemaking for 10 CFR 73.55, currently due to the Commission on May 31, 2006.

Second Proposed Action

The NRC evaluated the second proposed action and is deferring resolution of the second issue of the petition. The NRC intends to address the request when the NRC responds to comments on its proposed Design Basis Threat rule. That rule was issued for public comment on November 7, 2005.

For these reasons, the Commission is granting the first requested action of PRM–50–80 and is deferring resolution of the second requested action.

Dated at Rockville, Maryland, this 9th day of November, 2005.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,

Secretary of the Commission.

[FR Doc. E5–6365 Filed 11–16–05; 8:45 am]

BILLING CODE 7590–01–P

FARM CREDIT ADMINISTRATION

12 CFR Parts 652 and 655

RIN 3052–AC17

Federal Agricultural Mortgage Corporation Funding and Fiscal Affairs; Federal Agricultural Mortgage Corporation Disclosure and Reporting Requirements; Risk-Based Capital Requirements

AGENCY: Farm Credit Administration.

ACTION: Proposed rule.

SUMMARY: The Farm Credit Administration (FCA, Agency, us, or we) is proposing to amend regulations governing the Federal Agricultural Mortgage Corporation (Farmer Mac or the Corporation). Analysis of the Farmer Mac risk-based capital stress test (RBCST or the model) in the 3 years since its first official submission as of June 30, 2002, has identified several opportunities to update the model in response to changing financial markets, new business practices and the evolution of the loan portfolio at Farmer Mac, as well as continued development of best-industry practices among leading financial institutions. The proposed rule focuses on improvements to the RBSCT by modifying regulations found at 12 CFR part 652, subpart B. The effect of the proposed rule is intended to be a more accurate reflection of risk in the model in order to improve the model's output—Farmer Mac's regulatory minimum capital level. The proposed rule also makes one clarification relating to Farmer Mac's reporting requirements at 12 CFR 655.50(c).

DATES: You may send us comments by February 15, 2006.

ADDRESSES: Send us your comments by electronic mail to *reg-comm@fca.gov*, through the Pending Regulations section of our Web site at *http://www.fca.gov*, or through the Government-wide Web site *http://www.regulations.gov*. You may also submit your comments in writing to Robert Coleman, Director, Office of Secondary Market Oversight, Farm Credit Administration, 1501 Farm Credit Drive, McLean, VA 22102–5090, or by facsimile transmission to (703) 883–4477.

You may review copies of comments we receive at our office in McLean, Virginia, or from our Web site at *http://www.fca.gov*. Once you are in the Web site, select ''Legal Info,'' and then select ''Public Comments.'' We will show your comments as submitted, but for technical reasons we may omit items such as logos and special characters. Identifying information you provide, such as phone numbers and addresses, will be publicly available. However, we will attempt to remove electronic-mail addresses to help reduce Internet spam.

FOR FURTHER INFORMATION CONTACT:

Joseph T. Connor, Associate Director for Policy and Analysis, Office of Secondary Market Oversight, Farm Credit Administration, McLean, VA 22102–5090, (703) 883–4280, TTY (703) 883–4434; or

Joy Strickland, Senior Counsel, Office of the General Counsel, Farm Credit Administration, McLean, VA 22102–5090, (703) 883–4020, TTY (703) 883–4020.

SUPPLEMENTARY INFORMATION:

I. Purpose

The purpose of this proposed rule is to revise the risk-based capital (RBC) regulations that apply to Farmer Mac. The substantive issues addressed in this

proposed rule are: Miscellaneous income estimates, operating expense estimates, counterparty risk on non-program investments, the resolution timing for troubled loans and associated carrying costs, the treatment for income related to gain on sale of agricultural mortgage-backed securities (AMBS), the treatment of certain loan data for modeling purposes,[1] and the estimation of credit risk in the Long-Term Standby Purchase Commitment (Standby) portfolio.

The RBC rule contains language that anticipates the need for continuing changes to the model over time in an effort to adapt the model to Farmer Mac's actual operations on an on-going basis to the extent practicable. The Office of Secondary Market Oversight (OSMO) is also interested in updating the model in future rulemakings to respond to opportunities created by the continued evolution in techniques available for modeling risk-based capital requirements.

Further, consistent with the FCA Chairman and Chief Executive Officer's (CEO) letter to Congress on actions taken or to be taken in response to the Government Accountability Office (GAO) report entitled, ''Farmer Mac: Some Progress Made, but Greater Attention to Risk Management, Mission, and Corporate Governance Is Needed'' (Report),[2] the regulatory development process also included consideration of all comments and recommendations in the Report pertaining to the RBCST.

II. Background

Analysis of the Farmer Mac RBCST since its first official submission as of June 30, 2002, has identified several opportunities to update the model in response to changing financial markets, new business practices and from the evolution of the loan portfolio at Farmer Mac, as well as continued development of best-industry practices among leading financial institutions. We have divided the changes into two broad categories that we label ''technical'' and ''substantive.'' Technical changes are those we may implement without rulemaking and that do not require FCA Board action. We incorporated several such technical changes in December 2002, June 2004, and August 2005, and implemented them as Versions 1.1, 1.2, and 1.25 of the RBCST, respectively. These technical changes, and other Call Report-related changes, are detailed later in this preamble. This proposed rule makes substantive changes that require formal rulemaking procedures and FCA Board approval to implement.

III. Objectives

The FCA, through this proposed rule, seeks to update and refine the RBCST. Our goal is to ensure that the RBCST reflects changes in the Corporation's business structure and loan portfolio that have occurred since the model was originally developed by FCA, while complying with the statutory requirements and constraints on the model's design.

IV. Overview

The changes are summarized below.

A. Modify the RBCST's treatment of loans for which Farmer Mac does not collect certain loan origination data required by the model because of the loan product type and related underwriting requirements (*e.g.*, seasoned and fast-track loans). The proposed revision would use loan proxy data to estimate loan level losses rather than applying state-level average loss rates to such loans. The proposed revision also includes the use of data proxies when certain data anomalies are identified or other ambiguous data conditions are present.

B. Revise the treatment of Standby loans for which loan origination data needed by the model are available. Currently, the model treats all Standby loans as if they are seasoned loans for which the loan origination data needed for RBCST purposes are not available. Average loss rates by-state estimated from other loans are applied to Standby loans located in the same state. The proposed rule would improve the loss estimation method applied to Standby loans by applying an approach similar to that applied to the rest of the loan portfolio.

C. Change the method used to estimate future years' miscellaneous income from a fixed rate of 2 basis points of total assets to the 3-year average of the annualized actual miscellaneous income for each quarter as a percent of the sum of: Cash, investments, guaranteed securities, and loans held for investment. This change is consistent with the regulation's goal to reflect Farmer Mac's actual operations, as much as practicable.

D. Revise the variables in the regression formula used to calculate operating expense coefficients to more completely reflect Farmer Mac's cost. Operating expense coefficients are used to estimate future years' operating expenses.

E. Revise the model's estimate of gain on sale of AMBS from a fixed rate of 0.75 percent of new Farmer Mac I program volume to a rolling 3-year weighted average of actual gain levels experienced by Farmer Mac.

F. Change the model's assumption concerning loan loss resolution timing. The proposed revision reflects the stress associated with carrying costs on non-performing loans based on Farmer Mac's actual experience resolving troubled loans.

G. Adjust the model's estimate of income on non-program investments to reflect counterparty risk. We propose the application of discounts or ''haircuts'' to the yields on individual investments, scaled according to their credit ratings. FCA's consideration of such an adjustment was suggested in the October 2003 GAO Report.

H. Publish all prior technical changes, including those implemented in December 2002 (RBCST Version 1.1), June 2004 (RBCST Version 1.2), and August 2005 (RBCST Version 1.25).

I. Make other technical changes including improved formatting and clarity of labeling in certain cells of the RBCST worksheets and deletion of § 652.100 which is no longer relevant as it dealt with the date the original final rule on the RBCST became effective.

V. Issues, Options Considered, and Proposed Revisions

We have identified several items that require regulatory attention to amend or clarify the final rule published on April 12, 2001 (66 FR 19048). Below is a detailed explanation of all changes considered and proposed.

1. Treatment of Loans for Which Origination Data Are Not Collected by Farmer Mac

There is a significant portion of Farmer Mac's portfolio for which loan origination data required by the model are not collected by Farmer Mac under its underwriting requirements. The RBCST was designed to use loan data at origination. While not always necessary for underwriting purposes, loan origination data is important to the functioning of the model.

The RBCST uses a predictive equation to estimate the probability of default (PD) for each loan held or securitized by Farmer Mac as well as those underlying Standby contracts. The predictive equation is based on variables representing data at loan origination for each loan's debt-to-asset ratio, current ratio, loan-to-value ratio (LTV), and debt service coverage ratio, as well as

[1] This includes loan data where certain origination data are not collected by Farmer Mac as well as other data anomalies or ambiguous loan data.

[2] United States General Accounting Office, Farmer Mac: Some Progress Made, but Greater Attention to Risk Management, Mission, and Corporate Governance Is Needed, GAO–04–116 (2003). At the time of the report's publication, the GAO was known as the General Accounting Office.

inflation-adjusted loan size and worst-case rates of decline in farmland values. The PD estimated for each loan is combined with a loss-given-default estimate and loan size to determine expected loss. The loan loss is then adjusted for seasoning to account for a decline in PD as a loan ages. The RBCST then processes losses, together with other factors, to determine Farmer Mac's risk-based capital requirement. This approach to estimating PDs requires data at loan origination for the financial variables associated with each loan.

Currently, the RBCST separates Farmer Mac's portfolio into two groups referred to as ''Cash Window'' loans and Standby loans. Cash Window loans are loans held for investment and loans that underlie guaranteed securities, and Standby loans are loans that underlie Standby contracts. This segmentation was originally made to reflect Farmer Mac's business and loan underwriting practices when FCA developed the RBCST. At that time, Cash Window loans were newly originated full-time farm loans on which origination underwriting data were consistently available. Standby loans, on the other hand, were primarily highly seasoned Farm Credit System loans for which origination underwriting data were not available. Similarly, the business processes that pertain to Cash Window and Standby loans differed. Cash Window loans were generally processed by Farmer Mac on a loan-by-loan basis and held in a loan pool until sufficient volume was attained to permit securitization as an AMBS. Standby loans were largely underwritten on a pool basis and subject to a due diligence review. Therefore, the RBCST's portfolio segmentation was designed to treat Cash Window loans and Standby loans differently to reflect their operational differences. In versions 1.25 and earlier, the RBCST directly applies the estimated loss rates to individual Cash Window loans. For Standby loans, the RBCST indirectly applies these rates to individual loans following the specialized treatment discussed below.

During initial development of the RBCST in 1998, origination financial data were available on a majority (approximately 88 percent) of Farmer Mac's Cash Window loans, excluding pre-1996 loans. Since then, Farmer Mac's loan portfolio has evolved such that several of its loan products do not require collection of origination financial data. For instance, Farmer Mac has established specialized underwriting standards for Fast Track (*i.e.*, reduced documentation loans), seasoned, and part-time farm loans that exclude the collection of certain origination loan data used for RBCST purposes in recognition of acceptable alternative underwriting criteria. Total growth in these loan types, especially seasoned loans, has outpaced other types in the years since the model was first designed. Due to this growth, the proportion of loans with incomplete underwriting data has increased. As a result, the current treatment of applying average state-level loss rates estimated from other loans within the portfolio is applied to a significant proportion of the total loan portfolio. We recognize that collecting origination financial data used for RBCST purposes on all loan products may be impractical. Therefore, we propose modifying the current treatment of such loans to apply loan data proxies that conservatively reflect Farmer Mac's underwriting criteria and practices.

In describing the revisions, we will first discuss revisions for Cash Window loans and address Standby loans in the following section of this preamble as a separate improvement to the RBCST.

Under this proposed rule, the RBCST would substitute conservative proxies when the necessary loan origination data is unavailable. The conservative proxies reflect the higher end of the range of acceptable LTV and debt-to-asset ratios, and the lower end of the range of acceptable debt service coverage (DSC) ratios according to Farmer Mac's underwriting criteria. The proxy values to be applied are as follows: Debt-to-asset ratio of 0.60, LTV ratio of 0.70, and DSC ratio of 1.20.

The conservative proxies relate directly to Farmer Mac's underwriting standards thereby serving as another aspect of the proposed rule that draws on Farmer Mac's actual operations to enhance the RBCST. Using conservative proxy data preserves the theoretical and structural integrity of the RBCST and maintains consistency with statutory requirements for a stressful, worst-case scenario.

In addition, we propose application of the proxy data to data anomalies that occasionally occur in large sets of loan level data. Several conditions under which an anomaly would be identified are described in section 4.1, paragraph d.(3)(A) of the Technical Appendix to this proposed rule along with the proxy data that would be applied in each case.

Other loan data adjustments would be made in response to certain unique situations. These deal with rare instances where an origination date field might be blank, purchase or commitment date fields are blank, or the original loan balance is less than the current scheduled loan balance. For example, if the original loan balance field is blank or is less than the scheduled loan balance, the RBCST will use the scheduled (current) loan balance for modeling purposes. In such cases, when alternative loan balance data are used, the RBCST will substitute the ''cut-off'' date (*i.e.*, the date the loan was guaranteed or placed under a Standby agreement) for the origination date for that loan for purposes of the seasoning adjustment. In addition, the model uses the cut-off date when the loan origination date field is blank for lack of any other data to use in the model's seasoning adjustment. Because it would not be possible to compile an exhaustive list of data anomalies, the proposed rule reserves FCA's authority to require an explanation from Farmer Mac on other data anomalies and to apply the proxy data to such data until the anomaly is addressed by Farmer Mac.

2. Revise the Treatment of Standby Loans

As discussed in the previous section, loans underlying a Standby agreement receive specialized treatment by the RBCST Versions 1.25 and earlier. Rather than modeling loan-specific data, the average state-level loss rates determined from the Cash Window loan portfolio are applied to Standby loans based on the state in which the property is located. The loans are then seasoned based on their age from origination date. We adopted this treatment in response to the characteristics of Standby loans at the time the RBCST was developed. At that time, nearly all Standby loans were seasoned and origination financial data were not readily or consistently available from the originating FCS institution. Because the volume of the Standby program was not high at the time we developed the RBCST, and because the Standby loans were generally highly seasoned, it was deemed appropriate to establish a separate treatment for Standby loans that based losses on loans estimated using the Cash Window portfolio. However, given the availability of the newly proposed data proxies described above, it is now deemed more appropriate to treat Standby loans in a similar manner to Cash Window loans when estimating credit risk. In addition, Farmer Mac's Standby portfolio now includes more unseasoned loans for which loan origination data are available but are not currently used to estimate losses under the model's current treatment of Standby loans.

We propose to remove the specialized treatment of Standby loans and treat these loans in the same manner as Cash Window loans with the exception of seasoned Standby loans. Loans for

which origination data are available would be processed using those data. Standby loans for which origination data are not available or where data anomalies are identified would receive the same proxy data used for Cash Window loans. Seasoned Standby loans where data are available will receive the proxy data in light of Farmer Mac's practice of populating origination data fields with ''cut off'' data for such loans. ''Cut off'' data are data as of the date the loan was taken into Farmer Mac's portfolio. As a result, the RBCST would apply the loss-frequency model and loss-severity factor to all loans both Standby and Cash Window. This change would yield a more complete measure of credit risk of unseasoned Standby loans and compensate for the uncertainty associated with missing data on Standby loans.

3. Revise the Treatment of Miscellaneous Income

Currently, the RBCST estimates Farmer Mac's miscellaneous income over the 10 years of the model's time horizon as 2 basis points of total assets. This estimate was considered adequate because it approximated the historical average over the years prior to the model's development. Moreover, the amounts estimated were not significant. We propose to change the estimate of future years' miscellaneous income to the 3-year weighted average of actual miscellaneous income in each quarter divided by that quarter's actual sum of: Cash, investments, guaranteed securities, and loans held for investment. This change is consistent with the goal to reflect, as much as practicable, Farmer Mac's actual operations on an on-going basis, as it will be updated quarterly with Farmer Mac's most recent actual miscellaneous income experience.

The benefits of this proposed change are that it will:

(1) Build in an on-going adjustment to the estimate based on recent experience;

(2) Be easily understood;

(3) Add transparency to the miscellaneous income estimate; and

(4) Be consistent with the current rule's intent to simulate Farmer Mac's operations to the maximum extent practicable.

4. Revise the Treatment of Gain on Sale of AMBS

The proposed rule revises the methodology used to estimate future years' gains on the sale of AMBS, thus improving the model's ability to reflect Farmer Mac's current operations on an on-going basis. Previously, the model credited Farmer Mac with income of 0.75 percent of new Farmer Mac I program volume as estimated by the backfilling of loan volume in accordance with the steady-state scenario. However, recent trends in Farmer Mac's operations demonstrate that AMBS sales are more sporadic. The revised approach reflects the gain rates most recently experienced in Farmer Mac's operations by establishing a new input in the Data Inputs worksheet for ''Gain Rate on AMBS Sales'' and applying that gain rate factor (expressed as the actual gain as a percentage of the par value of the AMBS sold) to the dollar amount of AMBS sold during the most recent 4 quarters. Applying the 3-year gain rate factor to the most recent 4 quarters of activity appropriately smoothes the variability in Farmer Mac's sales of AMBS for RBCST purposes.

5. Revise the Operating Expense Regression Equation

The RBCST currently uses a regression equation to estimate operating expenses in future years that relates historic Farmer Mac operating expenses to a constructed variable reflecting loan and investment volumes. The goal is to accurately reflect costs associated with operating Farmer Mac as its program balances and investment levels change without being overly influenced by random variations that can reasonably occur in any given quarter. The structural model for estimating operating expenses was developed soon after the 1996 legislation that resulted in Farmer Mac's current business structure. As a result, the historic data can be divided into two time periods—with one time period representing activity prior to their ability to pool whole loans and hold loans on their balance sheet, and a second period with their business activities focused more directly and actively on loan-based activities. The data from the latter period had much higher cost structures than the former. To accommodate the data structure while retaining the longest sample period possible, a specification was adopted that included pre-1996 data with a dummy variable that permitted an intercept shift or, equivalently, as two segments of the regression with a ''jump'' in the fitted line at the point of the changes in cost structure related to the 1996 legislation. Additionally, it seemed reasonable to consider a structure that recognized economies of scale, assuming incremental business additions could be underwritten at lower marginal costs. As a result, a structure was adopted relating the logarithm of the sum of loans and investments to actual operating expenses with a dummy variable separating the pre- and post-1996 data periods.

Considerable data have accumulated since the operating expense regression was developed. Therefore, it is appropriate to develop a more complete representation of Farmer Mac's business activities at this point. We have considered: (a) The appropriate historic data period, (b) specific business segments and activities to include as explanatory variables, (c) the potential for seasonality in the expense structure, (d) the potential automation of the estimation of the coefficients within the RBCST, and (e) the need to utilize existing data structures and accounting conventions to the degree reasonable (*i.e.*, the potential difficulty with reconstructing some historic data series related to changed business segments).

The Agency believes that a more complete characterization of the expense structure of Farmer Mac can be specified by separating the business activities that contribute to variation in annualized expenses into:

(i) On-balance sheet investments,

(ii) On-balance sheet guaranteed securities,

(iii) The sum of off-balance sheet loans in the Farmer Mac I and Farmer Mac II programs, and

(iv) Gross real estate owned (REO).

The use of the multiple regressors obviates the need for the dummy variable. The inclusion of REO captures a possible high-cost segment of their business and provides a direct linkage between problem loans and higher operating costs. To reflect economies of scale, the independent variables are expressed on a logarithmic scale. The proposed specification and attendant revision in the RBCST utilize the following expression:

$$\text{Expenses}_t = \alpha + \beta_1 \ln(\text{OnF}_t) + \beta_2 \ln(\text{OnGS}_t) + \beta_3 \ln(\text{OnI}_t + \text{OffII}_t) + \beta_4 \ln(\text{OnREO}_t)$$

Where ''t'' indicates time period in the model, ''OnF'' represents on-balance sheet investments, ''OnGS'' represents on-balance sheet guaranteed securities, ''OffI'' and ''OffII'' represent off-balance sheet Farmer Mac I and II program loans, respectively, and ''REO'' represents gross real-estate owned. The in-sample fit is improved with this specification relative to the previously required approach for comparable data periods. Tests of the appropriate sample period for estimation are roughly comparable when using either complete available sample period data or data from quarters after the 1996 legislation and the establishment of the RBC

requirement. As under the current RBCST, Farmer Mac must re-estimate the coefficients quarterly and supply the coefficients and worksheet as part of its quarterly submission.

6. Improve Estimates of Carrying Costs of Troubled Loans by Revising Assumptions Regarding Loan Loss Resolution Timing

The RBCST was developed with a loss-severity estimate that assumes it would take Farmer Mac 1 year to work through problem loans from the point of default through final disposition. At the time of development of the RBCST, historical problem loan resolution timing data from Farmer Mac were not available. Farmer Mac data now indicate that problem loans may take longer to resolve than the 1 year assumed in the model's loss-severity rate.[3] If the time interval is longer than the current model's assumption, the capital needs for carrying non-performing assets in the model are likely understated in the current model. Therefore, we propose to reflect costs associated with any additional loan loss resolution time (LLRT) period (*i.e.*, the period beyond the 1-year period assumed in the loss-severity rate) in the model.[4]

With the exception of the 1-year period assumed in the loss-severity rate, the current RBCST under a steady-state scenario requires backfilling of problem loan volume with like assets, without recognizing any additional cost associated with carrying loans as non-earning, but funded, assets. Under the proposed rule, the RBCST will now reflect costs associated with the LLRT period. The change would be incorporated into the RBCST as follows. Off-balance sheet loans associated with losses are assumed to be purchased from the Standby portfolio and fully funded at the short-term cost of funds rate used in the model, and no associated guarantee fee is generated. The short-term cost of funds (adjusted to incorporate interest rate shock effects) is used to estimate this additional funding cost in recognition of Farmer Mac's actual business practices. On-balance sheet loans generating losses are also removed from the interest earnings calculations and continue to generate interest expense at the blended cost of long- and short-term funds (again adjusted to incorporate interest rate shock effects) for the LLRT period. The model would continue to backfill new loans at the point of loan resolution to retain its steady-state specification.

The proposed revisions involve two principal changes from the current RBCST. First, the date of backfill would be moved to a point in time that more accurately reflects Farmer Mac's actual experience. The model would then capture the additional costs of carrying loans in a non-interest earning category on the balance sheet. Second, the guarantee fee income would only be generated on performing loan guarantees and commitments. The LLRT becomes a line item in the Data Inputs worksheet. The initial LLRT will be set by FCA based on Farmer Mac historical data. The Corporation has not had a significant number of problem loans that have gone through the full resolution process from which to determine the LLRT for RBCST purpose. Nevertheless, the Agency has consistently designed the RBCST to reflect Farmer Mac data and its actual experience when available. The proposed treatment reflects the data currently available from Farmer Mac on the resolution of troubled loans. If Farmer Mac establishes a pattern of faster or slower resolution of troubled loans in the future, we will consider adjustments to the LLRT at that time.

The proposed LLRT revisions are forward-looking only. In other words, actual loans that defaulted in year zero and are in their second year of non-performing status in year 1 of the model's 10-year time horizon are not included in the proposed LLRT revision, and therefore no adjustment to restate current balance sheet amounts is required. An approach involving such a restatement was considered but deemed to add an unnecessary degree of complexity to the model. We note that the revision to more accurately reflect the carrying cost of non-performing loans results in less additional stress under a down-rate interest rate shock than under an up-rate shock. This result is logical as it would be less costly to fund non-performing loans when interest rates are relatively low.

One further calculation is necessary to complete the proposed LLRT revision. Implementation of the LLRT revision requires an estimate of loan amortization to estimate the additional carrying cost associated with the LLRT period by applying the appropriate cost of funds to a loan's remaining balance at the time of default. We use the portfolio average principal amortization to make this adjustment (*i.e.*, total portfolio current scheduled principal balance divided by total origination balance). The LLRT scaling factor is calculated in the Credit Loss Module as the ratio of total portfolio current scheduled principal balance divided by total origination balance divided by the loss-severity factor (0.209). This approach results in the calculation of a stressed level of nonperforming loan volume based on the credit losses estimated by the RBCST.

7. Add a Component To Reflect Counterparty Risk

Currently, the RBCST does not include a component to reflect counterparty risk on Farmer Mac's portfolio of investment securities, and derivatives. We propose adopting a system of haircuts to the yields on investment securities, scaled according to credit ratings—with greater haircuts applied to lower credit ratings. The risk-based capital regulations of the Office of Federal Housing Enterprise Oversight (OFHEO) (12 CFR part 1750) established a precedent for the levels of such haircuts. OFHEO defines five levels of credit ratings from ''AAA'' to ''below BBB and unrated.'' They assign each of the nationally recognized statistical rating organizations' (NRSRO) rating categories to one of the four OFHEO general rating categories. With these definitions specified, rate haircuts are applied by OFHEO to the securities in the investment and derivatives portfolios of its regulated enterprises.

In assessing the counterparty risk associated with non-program investments, OFHEO examined Depression-era default rates (1929 to 1931)[5] and a study completed for the National Bureau of Economic Research (NBER) in the 1950's.[6] OFHEO's haircut levels recognize recoveries on defaulted instruments, an adjustment that was also based on Depression-era data. Thus, haircut levels were derived based on default rates multiplied by severity rates. For all counterparties, the default rates used were 5 percent for AAA, 12.5 percent for AA, 20 percent for A, 40 percent for BBB and 100 percent for below BBB or unrated. Severity rates used were 70 percent for nonderivative securities, yielding net haircuts of 3.5 percent, 8.75 percent, 14.0 percent, and 28.0 percent for ratings AAA through

[3] Farmer Mac provided data on historical problem loan resolution timing which were used by FCA to estimate the time interval for problem loan resolution. As additional data become available, FCA may recalculate the LLRT interval.

[4] The LLRT period is equal to the period of time in excess of the portion of carrying costs already assumed in the RBCST's loss-severity rate. The loss-severity rate is assumed to incorporate losses associated with a period of 1 year of carrying defaulted loans and, thus, the LLRT period is equal to the FCA-determined actual period minus one.

[5] Keenan, S., Carty L., Shtogrin I., ''Historical Default Rates of Corporate Bond Issuers, 1920–1997,'' published by Moody's Investor's Services, February 1998.

[6] Hickman, W. Braddock, ''Corporate Bond Quality and Investor Experience,'' A Study by the National Bureau of Economic Research, Princeton University Press, Princeton, 1955.

BBB, respectively. One hundred percent haircuts are applied to the ''BBB or unrated'' category. The haircuts are applied on a weighted-average basis as reductions in the weighted-average yields of non-program investment categories.

We also considered OFHEO's phase-in of the haircuts and believe such a phase-in is appropriate for the RBCST as well. The rationale for the phase-in is based on the assumption that defaults on investments in response to a general downturn in the economy would not be instantaneous but on a more random basis through time. Therefore, the Agency proposes to phase-in the haircuts on a linear basis over the RBCST's 10-year time horizon. Further, we elected not to assign the rating of a parent company to its unrated subsidiary. This treatment is consistent with the OFHEO rule, which defends this policy on the basis that (a) NRSROs will not impute a corporate parent's rating to a derivative or credit enhancement counterparty in the context of a securities transaction, and (b) to extend that rating to the unrated subsidiary would be tantamount to the regulator rating the subsidiary.

We propose to apply these haircuts on a weighted-average basis by investment categories established in the ''Data Inputs'' worksheet of the RBCST, *e.g.*, commercial paper, corporate debt and asset-backed securities, agency mortgaged-backed securities and collateralized mortgage obligations. This proposal requires the Corporation to calculate the weighted-average haircut by investment category to be applied to the weighted-average yields for each investment category and input the haircuts into the ''Data Inputs'' worksheet. The proposed haircuts are set forth in the Table in paragraph e. of section 4.1 in the Technical Appendix.

Stress that impacts Farmer Mac would reasonably be expected to affect its terms of access to the swap market. Therefore, we considered adopting a similar haircut on derivative securities.[7] However, while the OFHEO regulation applies haircuts to derivatives, we do not propose to do so at this time. Our reasoning is based on our preference for a different approach to haircutting derivatives that reflects lost payments from derivative securities in a net-receive position, as well as the additional expense associated with the replacement of derivative positions when the counterparty has defaulted and the market value of the derivative has increased since the date the defaulted derivative contract was executed. Such an increased market value would be to Farmer Mac's benefit when the counterparty does not default, but to its detriment when it does. The Agency will address this risk in future revisions of the RBCST and specifically requests comment on the most appropriate approach to incorporate such ''replacement cost'' risk into the RBCST.

8. Provide Public Notice of Technical Changes to the RBCST

In December 2002, the Agency modified the RBCST with four technical changes. The changes resulted in the release of FARMER MAC RBCST Version 1.1.xls, which was uploaded for public access on the FCA Web site in the same month and first used by Farmer Mac for its December 31, 2002, submission. FARMER MAC RBCST Version 1.2 incorporates an individual change to the calculation of regulatory capital held by Farmer Mac and was implemented in June 2004. FARMER MAC RBCST Version 1.25 completed the changes in Version 1.2 to fully accommodate the format of Farmer Mac's balance sheet after its adoption of FASB Financial Interpretation 45 (FIN 45) in August 2005. The changes are summarized below.

(i) Added two line items in the Data Inputs worksheet for Real Estate Owned (REO), one for ''gross'' REO and the other ''net'' of allowances for losses on REO assets. This change in the RBCST balance sheet was made to adapt the model to the new balance sheet reporting format in Farmer Mac's financial statements. The change also corrects the amount of REO that is captured in assets-subject-to-loss on the Loan and Cashflows worksheet. Gross REO, not net REO, is now added into assets-subject-to-loss.

(ii) Corrected the ''base-case'' interest rate used in measuring interest rate risk on the Risk Measures worksheet. The Act requires that the model apply ''shocks'' to current interest rates at the lesser of 600 basis points or 50 percent of average interest rates on Treasury obligations in order to gauge Farmer Mac's sensitivity to interest rate risk. Previously, the model's base-case was calculated applying the shock to the 12-month average Constant Maturity Treasury rate (CMT) instead of the 3-month average CMT as required by the regulation. The change makes the model more consistent with the language in the original regulation.

(iii) Added the line item for ''Gain/Loss on Available for Sale Assets'' in the balance sheet. The RBCST ignores these gains and losses for purposes of calculating income because they do not represent actual cash flows. However, they must be presented in the balance sheet to maintain balanced financial statements and for accuracy of disclosure. This changes only the presentation of the model's balance sheet and has no impact on the regulatory capital requirement.

(iv) Corrected the method of distributing credit losses over time. The formula to distribute losses on new loan volume previously allocated the impact of those losses over all 10 years of the model's projected time horizon. For example, a small portion of losses on new loan volume in year 5 was recognized in years 1, 2, 3, and 4 of Version 1.0. The change correctly associates losses on each year's estimated new loan originations across the remaining years in the 10-year period.

(v) Recently, Farmer Mac changed the reporting format of its balance sheet in order to adopt the Financial Accounting Standards Board Interpretation No. 45 (FIN 45). The change resulted in the RBCST misstating Farmer Mac's regulatory capital held. To correct this, we inserted a new data element for Farmer Mac to submit in the Data Inputs worksheet of the RBCST, ''Contingent obligation for probable losses under FIN 45.'' The new data input, combined with a new line item in the balance sheet for the contra-asset account ''Allowance for Loan Losses,'' will permit the RBCST to correctly gross up Farmer Mac's generally accepted accounting principles (GAAP) equity to calculate its regulatory capital held as follows:

$$R_{Capital} = Equity_{GAAP} - OCI + R + ALL + C$$

Where:

$R_{Capital}$ = Regulatory Capital Held
$Equity_{GAAP}$ = Equity according to GAAP
OCI = Other Comprehensive Income
R = Reserves for Loan Losses
ALL = Allowance for Loan Losses
C = Contingent obligation for Probable Losses under FIN45

This change was implemented in June 2004 as FARMER MAC RBCST Version 1.2.

(vi) FARMER MAC RBCST Version 1.25 was implemented to complete the modifications necessary as a result of Farmer Mac's reporting format changes after the adoption of FIN 45. It ensures that the income generator references the appropriate fractions of all relevant balance sheet accounts for purposes of projecting income over the model's 10-year time horizon.

[7] The term ''derivative'' refers to over-the-counter financial derivative instruments used by Farmer Mac to hedge interest rate risk and synthetically extend the term structure of its debt to reduce funding costs.

(vii) Currently § 652.85(d) requires the RBCST to be submitted quarterly not later than the last business day of April for the quarter ended March 31, July for the quarter ended June 30, October for the quarter ended September 30, and January for the quarter ended December 31. OSMO recently formally incorporated the RBCST submission into the Farmer Mac Call Report, which is due by the date of Farmer Mac's filing of its quarterly Form 10–Q, or annual Form 10–K, with the Securities and Exchange Commission. Therefore, we propose to revise the rule by changing the RBCST submission deadline as follows. The RBCST submission will be due on the date of the filing of Farmer Mac's SEC Form 10–Q or 10–K, but no later than the 40th day after the quarter's ending March 31, June 30, and September 30, and the 60th day after the quarter ending on December 30. This technical change was implemented in the Call Report submitted for the first quarter of 2004.

9. Stressed-Based Cost of Funds Increment

It is reasonable to assume that a crisis in the agriculture sector that generates worst-case historical loan loss levels would have an impact on Farmer Mac's cost of funds. We considered alternative approaches to reflect the possible impact on funding spreads of significant stress to FAMC. For example, the cost of funds data used in the RBCST could be adjusted to correspond to the maximum spreads over U.S. Treasury securities of comparable maturity that were experienced by the Farm Credit System during the worst-case credit risk conditions of the 1980s. According to findings of Duncan and Singer, the worst-case historical stressful spreads over treasuries for comparable maturity Farm Credit System issuances were 138 basis points for 6-month securities, 130 basis points for 1-year securities, 115 basis points for 3-year securities, and 95 basis points for 5-year securities.[8]

The spreads in the RBCST could reflect these increased levels with an adjustment to account for Farmer Mac's current holdings of non-program investments relative to those held by the FCS institutions at the time of maximum stress.

FCA requests specific comments on an appropriate methodology to add stress to funding spreads in the RBCST. In particular, we request suggestions on how best to incorporate differences in the relative risk in the portfolios of the FCS and Farmer Mac as it relates to expected cost of funds differences between the two entities, including how one might scale the on-going changes in the risk of Farmer Mac's portfolio to moderate or amplify the stressful cost of funds spread.

10. Recognition of Risk on AgVantage Bonds

We considered applying the haircuts on non-program investments to AgVantage bonds because, despite their status as program assets, they exhibit many characteristics of investment securities. The model does not currently recognize risk associated with these assets or the loan collateral associated with them. We rejected that approach because AgVantage bonds are securities representing an interest in a pool of qualified loans. The statute requires losses on such loans to be estimated in a manner similar to the credit risk on other program assets.

AgVantage bonds are secured by either a general pledge of collateral that constitutes a representation and warranty of the availability of unencumbered qualified loan assets, or a specific pledge of qualified loans which, however, may be freely substituted at any time. Submitting loan-level data on AgVantage loan collateral for loss estimation is either not possible for lack of specifically identified loans, or subject to inaccuracy due to specific loans being replaced at any time, or simply impractical in terms of cost. The AgVantage program accounts for a very small portion of total program loan volume, and the proposed rule makes no change to the treatment of AgVantage assets. However, we specifically request comment on the question of how best to modify the RBCST in future rulemakings to consider the risk of AgVantage bonds.

11. Impact of Proposed Changes on Required Capital

We evaluated the impact of the proposed changes to the currently active version of the model, Version 1.25. Our tests indicated that changes related to the data proxies, the treatment of Standby loan portfolio, and the LLRT would have the most significant impact on minimum regulatory capital calculated by the model. The table below provides an indication of the impact of the revisions in the quarter ended June 30, 2005. Lines 1 through 6 present the impacts if only that revision were made to the current version and the column labeled ''Difference'' calculates the impact of that individual change for the quarter ended June 30, 2005, compared to the minimum requirement calculated using the currently active Version 1.25. Line 7 presents the impact of all proposed revisions in Version 2.0. As the table shows, the individual change impacts do not have an additive relationship to the total impact on the model output. This is due to the interrelationship of the changes with one another when they are combined in Version 2.0.

Calculated Regulatory Minimum Capital	6/30/2005	Difference
RBCST Version 1.25 (calculated as of 6/30/2005)	49,605	
RBCST 2.0 Individual Change Impacts:		
(1) CLM Changes: Data Proxies and Standby Treatment	75,665	26,060
(2) Miscellaneous Income Treatment	45,468	(4,137)
(3) Gain on Sale of AMBS	49,605	.....
(4) Investment Haircuts	51,737	2,131
(5) Loan Loss Resolution Timing (LLRT)	76,956	27,350
(6) Operating Expenses	59,063	9,458
(7) Total RBCST Version 2.0 Impact	123,529	73,924

As shown in the table, implementation of the LLRT carrying costs and application of the data proxies result in the greatest impact on the calculated risk-based capital requirements. The impact of using loan data proxies reflects the conservative nature of the proxies and to the modeling of all loans in the portfolio

[8] Duncan, D. and M. Singer, ''The Farm Credit System Crisis and Agency Security Yield-Spread Response'' Agricultural Finance Review, 1992: 30–42.

compared to the current approach of applying state-level loss estimated from certain loans to loan where loan origination data are unavailable. The table also indicates that increases in the LLRT period result in greater capital needs to offset the income and expense effects of carrying nonperforming loan volume. The other proposed changes create a more comprehensive representation of Farmer Mac operations for RBCST purposes, though they are not as significant in their impact.

12. Change to Disclosure Regulations

We are also proposing one change to the disclosure regulations in § 655.50(c). We propose to remove the word ''should'' and replace it with ''must'' to clarify that Farmer Mac must provide FCA with a copy of substantive correspondence it files with the Securities and Exchange Commission.

VI. Regulatory Flexibility Act

Pursuant to section 605(b) of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), FCA hereby certifies the rule will not have a significant economic impact on a substantial number of small entities. Farmer Mac has assets and annual income over the amounts that would qualify them as small entities. Therefore, Farmer Mac is not considered a ''small entity'' as defined in the Regulatory Flexibility Act.

List of Subjects

12 CFR Part 652

Agriculture, Banks, Banking, Capital, Investments, Rural areas.

12 CFR Part 655

Accounting, Agriculture, Banks, Banking, Accounting and reporting requirements, Disclosure and reporting requirements, Rural areas.

For the reasons stated in the preamble, parts 652 and 655 of chapter VI, title 12 of the Code of Federal Regulations are proposed to be amended as follows:

PART 652—FEDERAL AGRICULTURAL MORTGAGE CORPORATION FUNDING AND FISCAL AFFAIRS

1. The authority citation for part 652 continues to read as follows:

Authority: Secs. 4.12, 5.9, 5.17, 8.11, 8.31, 8.32, 8.33, 8.34, 8.35, 8.36, 8.37, 8.41 of the Farm Credit Act (12 U.S.C. 2183, 2243, 2252, 2279aa–11, 2279bb, 2279bb–1, 2279bb–2, 2279bb–3, 2279bb–4, 2279bb–5, 2279bb–6, 2279cc); sec. 514 of Pub. L. 102–552, 106 Stat. 4102; sec. 118 of Pub. L. 104–105, 110 Stat. 168.

2. Add subpart B to part 652 to read as follows:

Subpart B—Risk-Based Capital Requirements

Sec.
652.50 Definitions.
652.55 General.
652.60 Corporation board guidelines.
652.65 Risk-based capital stress test.
652.70 Risk-based capital level.
652.75 Your responsibility for determining the risk-based capital level.
652.80 When you must determine the risk-based capital level.
652.85 When to report the risk-based capital level.
652.90 How to report your risk-based capital determination.
652.95 Failure to meet capital requirements.
652.100 Audit of the risk-based capital stress test.
Appendix A—Subpart B of Part 652—Risk-Based Capital Stress Test

§ 652.50 Definitions.

For purposes of this subpart, the following definitions will apply:

Farmer Mac, Corporation, you, and *your* means the Federal Agricultural Mortgage Corporation and its affiliates as defined in subpart A of this part.

Our, us, or *we* means the Farm Credit Administration.

Regulatory capital means the sum of the following as determined in accordance with generally accepted accounting principles:

(1) The par value of outstanding common stock;

(2) The par value of outstanding preferred stock;

(3) Paid-in capital, which is the amount of owner investment in Farmer Mac in excess of the par value of stock;

(4) Retained earnings; and,

(5) Any allowances for losses on loans and guaranteed securities.

Risk-based capital means the amount of regulatory capital sufficient for Farmer Mac to maintain positive capital during a 10-year period of stressful conditions as determined by the risk-based capital stress test described in § 652.65.

§ 652.55 General.

You must hold risk-based capital in an amount determined in accordance with this subpart.

§ 652.60 Corporation board guidelines.

(a) Your board of directors is responsible for ensuring that you maintain total capital at a level that is sufficient to ensure continued financial viability and provide for growth. In addition, your capital must be sufficient to meet statutory and regulatory requirements.

(b) No later than 65 days after the beginning of Farmer Mac's planning year, your board of directors must adopt an operational and strategic business plan for at least the next 3 years. The plan must include:

(1) A mission statement;

(2) A review of the internal and external factors that are likely to affect you during the planning period;

(3) Measurable goals and objectives;

(4) Forecasted income, expense, and balance sheet statements for each year of the plan; and

(5) A capital adequacy plan.

(c) The capital adequacy plan must include capital targets necessary to achieve the minimum, critical and risk-based capital standards specified by the Act and this subpart as well as your capital adequacy goals. The plan must address any projected dividends, equity retirements, or other action that may decrease your capital or its components for which minimum amounts are required by this subpart. 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) 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. 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.*

§ 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 capital in the amount we determine is appropriate.

(b) You must at all times comply with the risk-based capital levels established by the risk-based capital stress test and must be able to determine your risk-based capital level at any time.

(c) If at any time the risk-based capital level you determine is less than the minimum capital requirements set forth in section 8.33 of the Act, you must maintain the statutory minimum capital level.

§ 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.

(b) In addition to the requirements of paragraph (a) of this section, we may require you to determine your risk-based capital level at any time.

(c) If you anticipate entering into any new business activity that could have a significant effect on capital, you must determine a pro forma risk-based capital level, which must include the new business activity, and report this pro forma determination to the Director,

Office of Secondary Market Oversight, at least 10-business days prior to implementation of the new business program.

§ 652.85 When to report the risk-based capital level.

(a) You must file a risk-based capital report with us each time you determine your risk-based capital level as required by § 652.80.

(b) You must also report to us at once if you identify in the interim between quarterly or more frequent reports to us that you are not in compliance with the risk-based capital level required by § 652.70.

(c) If you make any changes to the data used to calculate your risk-based capital requirement that cause a material adjustment to the risk-based capital level you reported to us, you must file an amended risk-based capital report with us within 5-business days after the date of such changes;

(d) You must submit your quarterly risk-based capital report for the last day of the preceding quarter not later than the last business day of April, July, October, and January of each year.

§ 652.90 How to report your risk-based capital determination.

(a) Your risk-based capital report must contain at least the following information:

(1) All data integral for determining the risk-based capital level, including any business policy decisions or other assumptions made in implementing the risk-based capital test;

(2) Other information necessary to determine compliance with the procedures for determining risk-based capital as specified in Appendix A to this subpart; and,

(3) Any other information we may require in written instructions to you.

(b) You must submit each risk-based capital report in such format or medium, as we require.

§ 652.95 Failure to meet capital requirements.

(a) *Determination and notice.* At any time, we may determine that you are not meeting your risk-based capital level calculated according to § 652.65, your minimum capital requirements specified in section 8.33 of the Act, or your critical capital requirements specified in section 8.34 of the Act. We will notify you in writing of this fact and the date by which you should be in compliance (if applicable).

(b) *Submission of capital restoration plan.* Our determination that you are not meeting your required capital levels may require you to develop and submit to us, within a specified time period, an acceptable plan to reach the appropriate capital level(s) by the date required.

§ 652.100 Audit of the risk-based capital stress test.

You must have a qualified, independent external auditor review your implementation of the risk-based capital stress test every 3 years and submit a copy of the auditor's opinion to us.

Appendix A—Subpart B of Part 652—Risk-Based Capital Stress Test

1.0 Introduction.
2.0 Credit Risk.
2.1 Loss-Frequency and Loss-Severity Models.
2.2 Loan-Seasoning Adjustment.
2.3 Example Calculation of Dollar Loss on One Loan.
2.4 Calculation of Loss Rates for Use in the Stress Test.
3.0 Interest Rate Risk.
3.1 Process for Calculating the Interest Rate Movement.
4.0 Elements Used in Generating Cashflows.
4.1 Data Inputs.
4.2 Assumptions and Relationships.
4.3 Risk Measures.
4.4 Loan and Cashflow Accounts.
4.5 Income Statements.
4.6 Balance Sheets.
4.7 Capital.
5.0 Capital Calculations.
5.1 Method of Calculation.

1.0 Introduction

a. Appendix A provides details about the risk-based capital stress test (stress test) for Farmer Mac. The stress test calculates the risk-based capital level required by statute under stipulated conditions of credit risk and interest rate risk. The stress test uses loan-level data from Farmer Mac's agricultural mortgage portfolio or proxy data as described in section 4.1d.(3) below, as well as quarterly Call Report and related information to generate pro forma financial statements and calculate a risk-based capital requirement. The stress test also uses historic agricultural real estate mortgage performance data, relevant economic variables, and other inputs in its calculations of Farmer Mac's capital needs over a 10-year period.

b. Appendix A establishes the requirements for all components of the stress test. The key components of the stress test are: Specifications of credit risk, interest rate risk, the cashflow generator, and the capital calculation. Linkages among the components ensure that the measures of credit and interest rate risk pass into the cashflow generator. The linkages also transfer cashflows through the financial statements to represent values of assets, liabilities, and equity capital. The 10-year projection is designed to reflect a steady state in the scope and composition of Farmer Mac's assets.

2.0 Credit Risk

Loan loss rates are determined by applying loss-frequency and loss-severity equations to Farmer Mac loan-level data. From these equations, you must calculate loan losses under stressful economic conditions assuming Farmer Mac's portfolio remains at a ''steady state.'' Steady state assumes the underlying characteristics and risks of Farmer Mac's portfolio remain constant over the 10 years of the stress test. Loss rates are computed from estimated dollar losses for use in the stress test. The loan volume subject to loss throughout the stress test is then multiplied by the loss rate. Lastly, the stress test allocates losses to each of the 10 years assuming a time pattern for loss occurrence as discussed in section 4.3, ''Risk Measures.''

2.1 Loss-Frequency and Loss-Severity Models

a. Credit risks are modeled in the stress test using historical time series loan-level data to measure the frequency and severity of losses on agricultural mortgage loans. The model relates loss frequency and severity to loan-level characteristics and economic conditions through appropriately specified regression equations to account explicitly for the effects of these characteristics on loan losses. Loan losses for Farmer Mac are estimated from the resulting loss-frequency equation combined with the loss-severity factor by substituting the respective values of Farmer Mac's loan-level data or proxy data as described in section 4.1d.(3) below, and applying stressful economic inputs.

b. The loss-frequency equation and loss-severity factor were estimated from historical agricultural real estate mortgage loan data from the Farm Credit Bank of Texas (FCBT). Due to Farmer Mac's relatively short history, its own loan-level data are insufficiently developed for use in estimating the default frequency equation and loss-severity factor. In the future, however, expansions in both the scope and historic length of Farmer Mac's lending operations may support the use of its data in estimating the relationships.

c. To estimate the equations, the data used included FCBT loans, which satisfied three of the four underwriting standards Farmer Mac currently uses (estimation data). The four standards specify: (1) The debt-to-assets ratio (D/A) must be less than 0.50, (2) the loan-to-value ratio (LTV) must be less than 0.70, (3) the debt-service-coverage ratio (DSCR) must exceed 1.25, (4) and the current ratio (current assets divided by current liabilities) must exceed 1.0. Furthermore, the D/A and LTV ratios were restricted to be less than or equal to 0.85.

d. Several limitations in the FCBT loan-level data affect construction of the loss-frequency equation. The data contained loans that were originated between 1979 and 1992, but there were virtually no losses during the early years of the sample period. As a result, losses attributable to specific loans are only available from 1986 through 1992. In addition, no prepayment information was available in the data.

e. The FCBT data used for estimation also included as performing loans, those loans that were re-amortized, paid in full, or merged with a new loan. Including these loans may lead to an understatement of loss-frequency probabilities if some of the re-amortized, paid, or merged loans experience default or incur losses. In contrast, when the

loans that are re-amortized, paid in full, or merged are excluded from the analysis, the loss-frequency rates are overstated if a higher proportion of loans that are re-amortized, paid in full, or combined (merged) into a new loan are non-default loans compared to live loans.[1]

f. The structure of the historical FCBT data supports estimation of loss frequency based on origination information and economic conditions. Under an origination year approach, each observation is used only once in estimating loan default. The underwriting variables at origination and economic factors occurring over the life of the loan are then used to estimate loan-loss frequency.

g. The final loss-frequency equation is based on origination year data and represents a lifetime loss-frequency model. The final equation for loss frequency is:

$$p = 1/(1 + \exp(-(BX))$$

Where:

$$BX = (-12.62738) + 1.91259 \cdot X_1 + (-0.33830) \cdot X_2/(1 + 0.0413299)^{\text{Periods}} + (-0.19596) \cdot X_3 + 4.55390 \cdot (1 - \exp((-0.00538178) \cdot X_4) + 2.49482 \cdot X_5$$

Where:

- p is the probability that a loan defaults and has positive losses (Pr (Y=1|x));
- X_1 is the LTV ratio at loan origination raised to the power 5.3914596;[2]
- X_2 is the largest annual percentage decline in FCBT farmland values during the life of the loan dampened with a factor of 0.0413299 per year;[3]
- X_3 is the DSCR at loan origination
- X_4 is 1 minus the exponential of the product of negative 0.00538178 and the original loan balance in 1997 dollars expressed in thousands; and
- X_5 is the D/A ratio at loan origination.

h. The estimated logit coefficients and p-values are:[4]

	Coefficients	p-value
Intercept	−12.62738	<0.0001
X_1: LTV variable	1.91259	0.0001
X_2: Max land value decline variable	0.33830	<0.0001
X_3: DSCR	−0.19596	0.0002
X_4: Loan size variable	4.55390	<0.0001
X_5: D/A ratio	2.49482	<0.0000

i. The low p-values on each coefficient indicate a highly significant relationship between the probability ratio of loan-loss frequency and the respective independent variables. Other goodness-of-fit indicators are:

Hosmer and Lemeshow goodness-of-fit p-value—0.1718
Max-rescaled R^2—0.2015
Concordant—85.2%
Disconcordant—12.0%
Tied—2.8%

j. These variables have logical relationships to the incidence of loan default and loss, as evidenced by the findings of numerous credit-scoring studies in agricultural finance.[5] Each of the variable coefficients has directional relationships that appropriately capture credit risk from underwriting variables and, therefore, the incidence of loan-loss frequency. The frequency of loan loss was found to differ significantly across all of the loan characteristics and lending conditions. Farmland values represent an appropriate variable for capturing the effects of exogenous economic factors. It is commonly accepted that farmland values at any point in time reflect the discounted present value of expected returns to the land.[6] Thus, changes in land values, as expressed in the loss-frequency equation, represent the combined effects of the level and growth rates of farm income, interest rates, and inflationary expectations—each of which is accounted for in the discounted, present value process.

k. When applying the equation to Farmer Mac's portfolio, you must get the input values for X_1, X_3, X_4, and X_5 for each loan in Farmer Mac's portfolio on the date at which the stress test is conducted, using either submitted data or proxy data as described in section 4.1 d.(3) below. For the variable X_2, the stressful input value from the benchmark loss experience is −23.52 percent. You must apply this input to all Farmer Mac loans subject to loss to calculate loss frequency under stressful economic conditions.[7] The maximum land value decline from the benchmark loss experience is the simple average of annual land value changes for Iowa, Illinois, and Minnesota for the years 1984 and 1985.[8]

l. Forecasting with data outside the range of the estimation data requires special treatment for implementation. While the estimation data embody Farmer Mac values for various loan characteristics, the maximum farmland price decline experienced in Texas was −16.69 percent, a value below the benchmark experience of −23.52 percent. To control for this effect, you must apply a procedure that restricts the slope of all the independent variables to that observed at the maximum land value decline observed in the estimation data. Essentially, you must approximate the slope of the loss-frequency equation at the point −16.69 percent in order to adjust the probability of loan default and loss occurrence for data beyond the range in the estimating data. The adjustment procedure is shown in step 4 of section 2.3 entitled, ''Example Calculation of Dollar Loss on One Loan.''

m. Loss severity was not found to vary systematically and was considered constant across the tested loan characteristics and lending conditions. Thus, the simple weighted average by loss volume of 20.9 percent is used in the stress test.[9] You must

[1] Excluding loans with defaults, 11,527 loans were active and 7,515 loans were paid in full, re-amortized or merged as of 1992. A t-test[2] of the differences in the means for the group of defaulted loans and active loans indicated that active loans had significantly higher D/A and LTV ratios, and lower current ratios than defaulted loans where loss occurred. These results indicate that, on average, active loans have potentially higher risk than loans that were re-amortized, paid in full, or merged.

[2] Loss probability is likely to be more sensitive to changes in LTV at higher values of LTV. The power function provides a continuous relationship between LTV and defaults.

[3] The dampening function reflects the declining effect that the maximum land value decline has on the probability of default when it occurs later in a loan's life.

[4] The nonlinear parameters for the variable transformations were simultaneously estimated using SAS version 8e NLIN procedure. The NLIN procedure produces estimates of the parameters of a nonlinear transformation for LTV, dampening factor, and loan-size variables. To implement the NLIN procedure, the loss-frequency equation and its variables are declared and initial parameter values supplied. The NLIN procedure is an iterative process that uses the initial parameter values as the starting values for the first iteration and continues to iterate until acceptable parameters are solved. The initial values for the power function and dampening function are based on the proposed rule. The procedure for the initial values for the size variable parameter is provided in an Excel spreadsheet posted at *http://www.fca.gov.*

The Gauss-Newton method is the selected iterative solving process. As described in the preamble, the loss-frequency function for the nonlinear model is the negative of the log-likelihood function, thus producing maximum likelihood estimates. In order to obtain statistical properties for the loss-frequency equation and verify the logistic coefficients, the estimates for the nonlinear transformations are applied to the FCBT data and the loss-frequency model is re-estimated using the SAS Logistic procedure. The SAS procedures, output reports and Excel spreadsheet used to estimate the parameters of the loss-frequency equation are located on the Web site *http://www.fca.gov.*

[5] Splett, N.S., P. J. Barry, B. Dixon, and P. Ellinger. ''A Joint Experience and Statistical Approach to Credit Scoring,'' *Agricultural Finance Review,* 54(1994):39–54.

[6] Barry, P. J., P. N. Ellinger, J. A. Hopkin, and C. B. Baker. *Financial Management in Agriculture,* 5th ed., Interstate Publishers, 1995.

[7] On- and off-balance sheet Farmer Mac I agricultural mortgage program assets booked after the 1996 Act amendments are subject to the loss calculation.

[8] While the worst-case losses, based on origination year, occurred during 1983 and 1984, this benchmark was determined using annual land value changes that occurred 2 years later.

[9] We calculated the weighted-average loss severity from the estimation data.

multiply loss severity with the probability estimate computed from the loss-frequency equation to determine the loss rate for a loan.

n. Using original loan balance results in estimated probabilities of loss frequency over the entire life of a loan. To account for loan seasoning, you must reduce the loan-loss exposure by the cumulative probability of loss already experienced by each loan as discussed in section 2.2 entitled, ''Loan-Seasoning Adjustment.'' This subtraction is based on loan age and reduces the loss estimated by the loss-frequency and loss-severity equations. The result is an age-adjusted lifetime dollar loss that can be used in subsequent calculations of loss rates as discussed in section 2.4, ''Calculation of Loss Rates for Use in the Stress Test.''

2.2 Loan-Seasoning Adjustment.

a. You must use the seasoning function supplied by FCA to adjust the calculated probability of loss for each Farmer Mac loan for the cumulative loss exposure already experienced based on the age of each loan. The seasoning function is based on the same data used to determine the loss-frequency equation and an assumed average life of 14 years for agricultural mortgages. If we determine that the relationship between the loss experience in Farmer Mac's portfolio over time and the seasoning function can be improved, we may augment or replace the seasoning function.

b. The seasoning function is parameterized as a beta distribution with parameters of p = 4.288 and q = 5.3185.[10] How the loan-seasoning distribution is used is shown in Step 7 of section 2.3, ''Example Calculation of Dollar Loss on One Loan.''

2.3 Example Calculation of Dollar Loss on One Loan.

Here is an example of the calculation of the dollar losses for an individual loan with the following characteristics and input values:[11]

Loan Origination Year	1996
Loan Origination Balance	$1,250,000
LTV at Origination	0.5
D/A at Origination	0.5
DSCR at Origination	1.3984
Maximum Percentage Land Price Decline (MAX)	−23.52

Step 1: Convert 1996 Origination Value to 1997 dollar value (LOAN) based on the consumer price index and transform as follows:

$1,278,500 = $1,250,000 · 1.0228

0.998972 = 1 − exp((−.00538178) · $1,278,500 / 1000)

Step 2: Calculate the default probabilities using −16.64 percent and −16.74 percent land value declines as follows:[12]

Where,

$Z_1 = (-12.62738) + 1.91259 \cdot LTV^{5.3914596} - 0.33830 \cdot (-16.6439443) - 0.19596 \cdot DSCR + 4.55390 \cdot 0.998972 + 2.49482 \cdot DA = (-1.428509)$

Default Loss Frequency at (−16.64%) = $1 / 1 + \exp^{-(-1.428509)} = 0.19333111$

And

$Z_1 = (-12.62738) + 1.91259 \cdot LTV^{5.3914596} - 0.33830 \cdot (-16.7439443) - 0.19596 \cdot DSCR + 4.55390 \cdot 0.998972 + 2.49482 \cdot DA = (-1.394679)$

Loss Frequency Probability at (−16.74%) = $1 / 1 + \exp^{-(-1.394679)} = 0.19866189$

Step 3: Calculate the slope adjustment. You must calculate slope by subtracting the difference between ''Loss-Frequency Probability at −16.64 percent'' and ''Loss-Frequency Probability at −16.74 percent'' and dividing by −0.1 (the difference between −16.64 percent and 16.74 percent as follows:

0.05330776 = (0.19333111 − 0.19866189) / −0.1

Step 4: Make the linear adjustment. You make the adjustment by increasing the loss-frequency probability where the dampened stressed farmland value input is less than −16.69 percent to reflect the stressed farmland value input, appropriately discounted. As discussed previously, the stressed land value input is discounted to reflect the declining effect that the maximum land value decline has on the probability of default when it occurs later in a loan's life.[13] The linear adjustment is the difference between −16.69 percent land value decline and the adjusted stressed maximum land value decline input of −23.52 multiplied by the slope estimated in Step 3 as follows:

Loss Frequency at −16.69 percent =

$Z_1 = (-12.62738) + (1.91259)\,(LTV^{5.3914596}) - (0.33830)\,(-16.6939443) - (0.19596)\,(DSCR) + (4.55390)\,(0.998972) + (2.49482)\,(DA) = -1.411594$

And

$1 / 1 + \exp^{(-1.411594)} = 0.19598279$

Dampened Maximum Land Price Decline = $(-20.00248544) = (-23.52)\,(1.0413299)^{-4}$

Slope Adjustment = 0.17637092 = 0.053312247 · (−16.6939443 − (−20.00248544))

Loan Default Probability = 0.37235371 = 0.19598279 + 0.17637092

Step 5: Multiply loan default probability times the average severity of 0.209 as follows:

0.077821926 = 0.37235371 · 0.209

Step 6: Multiply the loss rate times the origination loan balance as follows:

$97,277 = $1,250,000 · 0.077821926

Step 7: Adjust the origination based dollar losses for 4 years of loan seasoning as follows:

$81,987 = $97,277 − $97,277 · (0.157178762)[14]

2.4 Calculation of Loss Rates for Use in the Stress Test

a. You must compute the loss rates by state as the dollar weighted average seasoned loss rates from the Cash Window and Standby loan portfolios by state. The spreadsheet entitled, ''Credit Loss Module.XLS'' can be used for these calculations. This spreadsheet is available for download on our Web site, *http://www.fca.gov,* or will be provided upon request. The blended loss rates for each state are copied from the ''Credit Loss Module'' to the stress test spreadsheet for determining Farmer Mac's regulatory capital requirement.

b. The stress test use of the blended loss rates is further discussed in section 4.3, ''Risk Measures.''

3.0 Interest Rate Risk

The stress test explicitly accounts for Farmer Mac's vulnerability to interest rate risk from the movement in interest rates specified in the statute. The stress test considers Farmer Mac's interest rate risk position through the current structure of its balance sheet, reported interest rate risk shock-test results,[15] and other financial activities. The stress test calculates the effect of interest rate risk exposure through market value changes of interest-bearing assets, liabilities, and off-balance sheet transactions, and thereby the effects to equity capital. The stress test also captures this exposure through the cashflows on rate-sensitive assets and liabilities. We discuss how to calculate the dollar impact of interest rate risk in section 4.6, ''Balance Sheets.''

3.1 Process for Calculating the Interest Rate Movement

a. The stress test uses the 10-year Constant Maturity Treasury (10-year CMT) released by the Federal Reserve in HR. 15, ''Selected Interest Rates.'' The stress test uses the 10-year CMT to generate earnings yields on assets, expense rates on liabilities, and changes in the market value of assets and liabilities. For stress test purposes, the starting rate for the 10-year CMT is the 3-month average of the most recent monthly rate series published by the Federal Reserve. The 3-month average is calculated by summing the latest monthly series of the 10-year CMT and dividing by three. For instance, you would calculate the initial rate on June 30, 1999, as:

Month end	10-year CMT monthly series
04/1999	5.18
05/1999	5.54

[10] We estimated the loan-seasoning distribution from portfolio aggregate charge-off rates from the estimation data. To do so, we arrayed all defaulting loans where loss occurred according to the time from origination to default. Then, a beta distribution, B(p, q), was fit to the estimation data scaled to the maximum time a loan survived (14 years).

[11] In the examples presented we rounded the numbers, but the example calculation is based on a larger number of significant digits. The stress test uses additional digits carried at the default precision of the software.

[12] This process facilitates the approximation of slope needed to adjust the loss probabilities for land value declines greater than observed in the estimation data.

[13] The dampened period is the number of years from the beginning of the origination year to the current year (*i.e.,* January 1, 1996 to January 1, 2000 is 4 years).

[14] The age adjustment of 0.157178762 is determined from the beta distribution for a 4-year-old loan.

[15] See paragraph c. of section 4.1 entitled, ''Data Inputs,'' for a description of the interest rate risk shock-reporting requirement.

Month end	10-year CMT monthly series
06/1999	5.90
Average	5.54

b. The amount by which the stress test shocks the initial rate up and down is determined by calculating the 12-month average of the 10-year CMT monthly series. If the resulting average is less than 12 percent, the stress test shocks the initial rate by an amount determined by multiplying the 12-month average rate by 50 percent. However, if the average is greater than or equal to 12 percent, the stress test shocks the initial rate by 600 basis points. For example, determine the amount by which to increase and decrease the initial rate for June 30, 1999, as follows:

Month end	10-year CMT monthly series
07/1998	5.46
08/1998	5.34
09/1998	4.81
10/1998	4.53
11/1998	4.83
12/1998	4.65
01/1999	4.72
02/1999	5.00
03/1999	5.23
04/1999	5.18
05/1999	5.54
06/1999	5.90
12-Month Average	5.10

Calculation of Shock Amount
12-Month Average Less than 12%: Yes
12-Month Average: 5.10
Multiply the 12-Month Average by: 50%
Shock in basis points equals: 255

c. You must run the stress test for two separate changes in interest rates: (i) An immediate increase in the initial rate by the shock amount; and (ii) immediate decrease in the initial rate by the shock amount. The stress test then holds the changed interest rate constant for the remainder of the 10-year stress period. For example, at June 30, 1999, the stress test would be run for an immediate and sustained (for 10 years) upward movement in interest rates to 8.09 percent (5.54 percent plus 255 basis points) and also for an immediate and sustained (for 10 years) downward movement in interest rates to 2.99 percent (5.54 percent minus 255 basis points). The movement in interest rates that results in the greatest need for capital is then used to determine Farmer Mac's risk-based capital requirement.

4.0 Elements Used in Generating Cashflows

a. This section describes the elements that are required for implementation of the stress test and assessment of Farmer Mac capital performance through time. An Excel spreadsheet named FAMC RBCST, available at *http://www.fca.gov,* contains the stress test, including the cashflow generator. The spreadsheet contains the following seven worksheets:

(1) Data Input;
(2) Assumptions and Relationships;
(3) Risk Measures (credit risk and interest rate risk);
(4) Loan and Cash Flow Accounts;
(5) Income Statements;
(6) Balance Sheets; and
(7) Capital.

b. Each of the components is described in further detail below with references where appropriate to the specific worksheets within the Excel spreadsheet. The stress test may be generally described as a set of linked financial statements that evolve over a period of 10 years using generally accepted accounting conventions and specified sets of stressed inputs. The stress test uses the initial financial condition of Farmer Mac, including earnings and funding relationships, and the credit and interest rate stressed inputs to calculate Farmer Mac's capital performance through time. The stress test then subjects the initial financial conditions to the first period set of credit and interest rate risk stresses, generates cashflows by asset and liability category, performs necessary accounting postings into relevant accounts, and generates an income statement associated with the first interval of time. The stress test then uses the income statement to update the balance sheet for the end of period 1 (beginning of period 2). All necessary capital calculations for that point in time are then performed.

c. The beginning of the period 2 balance sheet then serves as the departure point for the second income cycle. The second period's cashflows and resulting income statement are generated in similar fashion as the first period's except all inputs (*i.e.*, the periodic loan losses, portfolio balance by category, and liability balances) are updated appropriately to reflect conditions at that point in time. The process evolves forward for a period of 10 years with each pair of balance sheets linked by an intervening set of cashflow and income statements. In this and the following sections, additional details are provided about the specification of the income-generating model to be used by Farmer Mac in calculating the risk-based capital requirement.

4.1 Data Inputs

The stress test requires the initial financial statement conditions and income generating relationships for Farmer Mac. The worksheet named ''Data Inputs'' contains the complete data inputs and the data form used in the stress test. The stress test uses these data and various assumptions to calculate pro forma financial statements. For stress test purposes, Farmer Mac is required to supply:

a. *Call Report Schedules RC: Balance Sheet and RI: Income Statement.* These schedules form the starting financial position for the stress test. In addition, the stress test calculates basic financial relationships and assumptions used in generating pro forma annual financial statements over the 10-year stress period. Financial relationships and assumptions are in section 4.2, ''Assumptions and Relationships.''

b. *Cashflow Data for Asset and Liability Account Categories.* The necessary cashflow data for the spreadsheet-based stress test are book value, weighted average yield, weighted average maturity, conditional prepayment rate, weighted average amortization, and weighted average guarantee fees. The spreadsheet uses this cashflow information to generate starting and ending account balances, interest earnings, guarantee fees, and interest expense. Each asset and liability account category identified in this data requirement is discussed in section 4.2, ''Assumptions and Relationships.''

c. *Interest Rate Risk Measurement Results.* The stress test uses the results from Farmer Mac's interest rate risk model to represent changes in the market value of assets, liabilities, and off-balance sheet positions during upward and downward instantaneous shocks in interest rates of 300, 250, 200, 150, and 100 basis points. The stress test uses these data to calculate a schedule of estimated effective durations representing the market value effects from a change in interest rates. The stress test uses a linear interpolation of the duration schedule to relate a change in interest rates to a change in the market value of equity. This calculation is described in section 4.4 entitled, ''Loan and Cashflow Accounts,'' and is illustrated in the referenced worksheet of the stress test.

d. *Loan-Level Data for All Farmer Mac I Program Assets.*

(1) The stress test requires loan-level data for all Farmer Mac I program assets to determine lifetime age-adjusted loss rates. The specific loan data fields required for running the credit risk component are:

FARMER MAC I PROGRAM LOAN DATA FIELDS
Loan Number.
Ending Scheduled Balance.
Group.
Pre/Post Act.
Property State.
Product Type.
Origination Date.
Loan Cutoff Date.
Original Loan Balance.
Original Scheduled P&I.
Original Appraised Value.
Loan-to-Value Ratio.
Debt-to-Assets Ratio.
Current Assets.
Current Liabilities.
Total Assets.
Total Liabilities.
Gross Farm Revenue.
Net Farm Income.
Depreciation.
Interest on Capital Debt.
Capital Lease Payments.
Living Expenses.
Income & FICA Taxes.
Net Off-Farm Income.
Total Debt Service.
Guarantee/Commitment Fee.
Seasoned Loan Flag.

(2) From the loan-level data, you must identify the geographic distribution by state of Farmer Mac's loan portfolio and enter the

current loan balance for each state in the ''Data Inputs'' worksheet. The lifetime age-adjustment of origination year loss rates was discussed in section 2.0, ''Credit Risk.'' The lifetime age-adjusted loss rates are entered in the ''Risk Measures'' worksheet of the stress test. The stress test application of the loss rates is discussed in section 4.3, ''Risk Measures.''

(3) Under certain circumstances, described below, you must substitute the following data proxies for the variables LTV, DSCR, and D/A: LTV = 0.70, DSCR = 1.20, and D/A = 0.60. The substitution must be done whenever any of these data are missing, *i.e.*, cells are blank, or one or more of the conditions in the following table is true.

Condition:	Apply:
1. Total Assets = 0	Proxy D/A.
2. Total Liabilities = 0	Proxy D/A.
3. Total assets less total liabilities <0	Proxy D/A.
4. Total debt service = 0 or not calculable	Proxy DSCR.
5. Net farm income = 0	Proxy DSCR.
6. LTV ratio = 0	Proxy LTV.
7. Total assets less than original appraised value	Proxy LTV, D/A.
8. Total liabilities less than the original loan amount	Proxy D/A.
9. Total debt service is less than original scheduled principal and interest payment	Proxy DSCR.
10. Depreciation, interest on capital debt, capital lease payments, or living expenses are reported as less than zero.	Proxy DSCR.
11. Original Scheduled Principal and Interest is greater than Total Debt Service	Proxy DSCR.
12. Calculated LTV (original loan amount divided by original appraised value) does not equal the submitted greater of LTV ratio.	The greater of the two LTV ratios.
13. Any of the fields referenced in ''1.'' through ''12.'' above are blank or contain spaces, periods, zeros, negative amounts, or fonts formatted to any setting ratios other than numbers.	Proxy all realted ratios.

In addition, the following loan data adjustments must be made in response to the situations listed below:

Situation:	Data adjustment:
Original loan balance is less than scheduled loan balance	Substitute scheduled balance for origination.
Purchase (commitment) date (a.k.a. ''cutoff'' date) field and Origination date field are both blank	Insert the quarter end ''as of'' date of the RBCST submission.
Origination date field is blank	Model based on Cutoff date.
Seasoned Standby loans that include loan data	Proxy data applied.[16]

Further, because it would not be possible to compile an exhaustive list of loan data anomalies, FCA reserves the authority to require an explanation on other data anomalies it identifies and to apply the loan data proxies on such cases until the anomaly is adequately addressed by the Corporation.

e. *Weighted Haircuts for Non-Program Investments.* For non-program investments, the stress test adjusts the weighted average yield data referenced in section 4.1b. to reflect counterparty risk. Non-program investments are defined in 12 CFR 652.5. The haircuts are applied by credit rating category. For this purpose, FCA credit rating categories are mapped to the Nationally Recognized Statistical Rating Organizations (NRSRO) ratings categories as set forth in the following table.

RATING AGENCIES MAPPINGS TO FCA RATINGS CATEGORIES

FCA Ratings Category	AAA	AA	A	BBB	Below BBB and Unrated.
Standard & Poor's Long-Term	AAA	AA	A	BBB	Below BBB and Unrated.
Fitch Long-Term	AAA	AA	A	BBB	Below BBB and Unrated.
Moody's Long-Term	Aaa	Aa	A	Baa	Below Baa and Unrated.
Standard & Poor's Short-Term	A–1+ SP–1+	A–1 SP–1	A–2 SP–2	A–3	SP–3, B, or Below and Unrated.
Fitch Short-Term	F–1+	F–1	F–2	F–3	Below F–3 and Unrated.
Moody's Short-Term[17]		Prime-1 MIG1 VMIG1	Prime-2 MIG2 VMIG2	Prime-3 MIG3 VMIG3	Not Prime, SG and Unrated.
Fitch Individual Bank Ratings	A	B A/B	C B/C	D C/D	E D/E
Moody's Bank Financial Strength Rating	A	B	C	D	E

[16] Application of proxy data recognizes that underwriting data on seasoned standby loans are not reviewed by Farmer Mac in favor of other criteria and frequently not origination data.

[17] Any rating that appears in more than one category column is assigned to the lower FCA rating category.

The Corporation must calculate the haircut to be applied to each investment based on the lowest credit rating the investment received from NRSRO using the haircuts levels in the following table.

FARMER MAC RBCST MAXIMUM HAIRCUT BY FCA RATINGS CATEGORY

FCA ratings category	Non-derivative contract counterparties or instruments (percent)
Cash	0
AAA	3.50
AA	8.75
A	14.00
BBB	28.00
Below BBB and Unrated	100.00

Individual investment haircuts must then be aggregated into weighted average haircuts by investment category and provided in the ''Data Inputs'' worksheet. The spreadsheet uses this information to account for counterparty insolvency through reduced interest earnings on these categories of investment according to a 10-year linear phase-in. Each asset account category identified in this data requirement is discussed in section 4.2, ''Assumptions and Relationships.''

f. *Other Data Requirements*. Other data elements are taxes paid over the previous 2 years, the corporate tax schedule, selected line items from Schedule RS–C of the Call Report, and 10-year CMT information as discussed in section 3.1 entitled, ''Process for Calculating the Interest Rate Movement.'' The stress test uses the corporate tax schedule and previous taxes paid to determine the appropriate amount of taxes, including available loss carry-backs and loss carry-forwards. Three line items found in sections Part II.2.a. and 2.b. of Call Report Schedule RS–C Capital Calculation must also be entered in the ''Data Inputs'' sheet. The two line items found in Part II.2.a. contain the dollar volume off-balance sheet assets relating to the Farmer Mac I and II programs. The off-balance sheet program asset dollar volumes are used to calculate the operating expense regression on a quarterly basis. The single-line item found in Part II.2.b. provides the amount of other off-balance sheet obligations and is presented in the balance sheet section of the stress test for purposes of completeness. The 10-year CMT quarterly average of the monthly series and the 12-month average of the monthly series must be entered in the ''Data Inputs'' sheet. These two data elements are used to determine the starting interest rate and the level of the interest rate shock applied in the stress test.

4.2 Assumptions and Relationships

a. The stress test assumptions are summarized on the worksheet called ''Assumptions and Relationships.'' Some of the entries on this page are direct user entries. Other entries are relationships generated from data supplied by Farmer Mac or other sources as discussed in section 4.1, ''Data Inputs.'' After current financial data are entered, the user selects the date for running the stress test. This action causes the stress test to identify and select the appropriate data from the ''Data Inputs'' worksheet. The next section highlights the degree of disaggregation needed to maintain reasonably representative financial characterizations of Farmer Mac in the stress test. Several specific assumptions are established about the future relationships of account balances and how they evolve.

b. From the data and assumptions, the stress test computes pro forma financial statements for 10 years. The stress test must be run as a ''steady state'' with regard to program balances, and where possible, will use information gleaned from recent financial statements and other data supplied by Farmer Mac to establish earnings and cost relationships on major program assets that are applied forward in time. As documented in the stress test, entries of ''1'' imply no growth and/or no change in account balances or proportions relative to initial conditions with the exception of pre-1996 loan volume being transferred to post-1996 loan volume. The interest rate risk and credit loss components are applied to the stress test through time. The individual sections of that worksheet are:

(1) *Elements related to cashflows, earnings rates, and disposition of discontinued program assets*.

(A) The stress test accounts for earnings rates by asset class and cost rates on funding. The stress test aggregates investments into the categories of: Cash and money market securities; commercial paper; certificates of deposit; agency mortgage-backed securities and collateralized mortgage obligations; and other investments. With FCA's concurrence, Farmer Mac is permitted to further disaggregate these categories. Similarly, we may require new categories for future activities to be added to the stress test. Loan items requiring separate accounts include the following:

(i) Farmer Mac I program assets post-1996 Act;

(ii) Farmer Mac I program assets post-1996 Act Swap balances;

(iii) Farmer Mac I program assets pre-1996 Act;

(iv) Farmer Mac I AgVantage securities;

(v) Loans held for securitization; and

(vi) Farmer Mac II program assets.

(B) The stress test also uses data elements related to amortization and prepayment experience to calculate and process the implied rates at which asset and liability balances terminate or ''roll off'' through time. Further, for each category, the stress test has the capacity to track account balances that are expected to change through time for each of the above categories. For purposes of the stress test, all assets are assumed to maintain a ''steady state'' with the implication that any principal balances retired or prepaid are replaced with new balances. The exceptions are that expiring pre-1996 Act program assets are replaced with post-1996 Act program assets.

(2) *Elements related to other balance sheet assumptions through time*. As well as interest earning assets, the other categories of the balance sheet that are modeled through time include interest receivable, guarantee fees receivable, prepaid expenses, accrued interest payable, accounts payable, accrued expenses, reserves for losses (loans held and guaranteed securities), and other off-balance sheet obligations. The stress test is consistent with Farmer Mac's existing reporting categories and practices. If reporting practices change substantially, the above list will be adjusted accordingly. The stress test has the capacity to have the balances in each of these accounts determined based upon existing relationships to other earning accounts, to keep their balances either in constant proportions of loan or security accounts, or to evolve according to a user-selected rule. For purposes of the stress test, these accounts are to remain constant relative to the proportions of their associated balance sheet accounts that generated the accrued balances.

(3) *Elements related to income and expense assumptions*. Several other parameters that are required to generate pro forma financial statements may not be easily captured from historic data or may have characteristics that suggest that they be individually supplied. These parameters are the gain on agricultural mortgage-backed securities (AMBS) sales, miscellaneous income, operating expenses, reserve requirement, guarantee fees and loan loss resolution timing.

(A) The stress test applies the actual weighted average gain rate on sales of AMBS over the most recent 3 years to the dollar amount of AMBS sold during the most recent four quarters in order to estimate gain on sale of AMBS over the stress period.

(B) The stress test assumes miscellaneous income at a level equal to the average of the most recent 3-year's actual miscellaneous income as a percent of the sum of; cash, investments, guaranteed securities, and loans held for investment.

(C) The stress test assumes that short-term cost of funds is incurred in relation to the amount of defaulting loans purchased from off-balance sheet pools. The remaining UPB on this loan volume is the origination amount reduced by the proportion of the total portfolio that has amortized as of the end of the most recent quarter. This volume is assumed to be funded at the short-term cost of funds and this expense continues for a period equal to the loan loss resolution timing period (LLRT) period minus 1. We will calculate the LLRT period from Farmer Mac data. In addition, during the LLRT period, all guarantee income associated with the loan volume ceases.

(D) The stress test generates no interest income on the estimated volume of defaulted on-balance sheet loan volume required to be carried during the LLRT period, but continues to accrue funding costs during the remainder of the LLRT period.

(E) The Agency will consider revising the LLRT period in response to changes in the Corporation's actual experience.

(F) Operating costs are determined in the model through application of the revised

[17] Any rating that appears in more than one category column is assigned to the lower FCA rating category.

operating expense equation which may be restated as:

$$\text{Expenses} = \alpha + \beta_1 \ln(\text{OnF}_t) + \beta_2 \ln(\text{OnGS}_t) + \beta_3 \ln(\text{OffI}_t + \text{OffII}_t) + \beta_4 \ln(\text{REO}_t)$$

Where t indicates time period in the model, OnF represents on-balance sheet investments, OnGS represents on-balance sheet guaranteed securities, OffI and OffII represent off balance sheet Farmer Mac I and II program loans, respectively, REO represents gross real-estate owned and the β_i coefficients are taken from the operating expense regression equation which is to be re-estimated quarterly by Farmer Mac, and the resulting coefficients entered into the ''Assumptions and Relationships'' worksheet. As additional data accumulate, the specification will be re-examined and modified if we deem changing the specification results in a more appropriate representation of operating expenses.

(G) To run the stress test, the operating expense regression equation must be re-estimated using data from Farmer Mac's inception to the most recent quarterly financial information and the resulting coefficient entered into the ''Assumptions and Relationships''worksheet.

(H) The reserve requirement as a fraction of loan assets can also be specified. However, the stress test is run with the reserve requirement set to zero. Setting the parameter to zero causes the stress test to calculate a risk-based capital level that is comparable to regulatory capital, which includes reserves. Thus, the risk-based capital requirement contains the regulatory capital required, including reserves. The amount of total capital that is allocated to the reserve account is determined by GAAP. The guarantee rates applied in the stress test are: post-1996 Farmer Mac I assets (50 basis points, current weighted average of 42 basis points); pre-1996 Farmer Mac I assets (25 basis points); and Farmer Mac II assets (25 basis points).

(4) *Elements related to earnings rates and funding costs.*

(A) The stress test can accommodate numerous specifications of earnings and funding costs. In general, both relationships are tied to the 10-year CMT interest rate. Specifically, each investment account, each loan item, and each liability account can be specified as fixed rate, or fixed spread to the 10-year CMT with initial rates determined by actual data. The stress test calculates specific spreads (weighted average yield less initial 10-year CMT) by category from the weighted average yield data supplied by Farmer Mac as described earlier. For example, the fixed spread for Farmer Mac I program post-1996 Act mortgages is calculated as follows:

$$\text{Fixed Spread} = \text{Weighted Average Yield less 10-year CMT}$$

$$0.014 = 0.0694 - 0.0554$$

(B) The resulting fixed spread of 1.40 percent is then added to the 10-year CMT when it is shocked to determine the new yield. For instance, if the 10-year CMT is shocked upward by 300 basis points, the yield on Farmer Mac I program post-1996 Act loans would change as follows:

$$\text{Yield} = \text{Fixed Spread} + \text{10-year CMT}$$

$$.0994 = .014 + .0854$$

(C) The adjusted yield is then used for income calculations when generating pro forma financial statements. All fixed-spread asset and liability classes are computed in an identical manner using starting yields provided as data inputs from Farmer Mac. The fixed-yield option holds the starting yield data constant for the entire 10-year stress test period. You must run the stress test using the fixed-spread option for all accounts except for discontinued program activities, such as Farmer Mac I program loans made before the 1996 Act. For discontinued loans, the fixed-rate specification must be used if the loans are primarily fixed-rate mortgages.

(5) *Elements related to interest rate shock test.* As described earlier, the interest rate shock test is implemented as a single set of forward interest rates. The stress test applies the up-rate scenario and down-rate scenario separately. The stress test also uses the results of Farmer Mac's shock test, as described in paragraph c. of section 4.1, ''Data Inputs,'' to calculate the impact on equity from a stressful change in interest rates as discussed in section 3.0 titled, ''Interest Rate Risk.'' The stress test uses a schedule relating a change in interest rates to a change in the market value of equity. For instance, if interest rates are shocked upward so that the percentage change is 262 basis points, the linearly interpolated effective estimated duration of equity is -6.7405 years given Farmer Mac's interest rate measurement results at 250 and 300 basis points of -6.7316 and -6.7688 years, respectively found on the effective duration schedule. The stress test uses the linearly interpolated estimated effective duration for equity to calculate the market value change by multiplying duration by the base value of equity before any rate change from Farmer Mac's interest rate risk measurement results with the percentage change in interest rates.

4.3 Risk Measures

a. This section describes the elements of the stress test in the worksheet named ''Risk Measures'' that reflect the interest rate shock and credit loss requirements of the stress test.

b. As described in section 3.1, the stress test applies the statutory interest rate shock to the initial 10-year CMT rate. It then generates a series of fixed annual interest rates for the 10-year stress period that serve as indices for earnings yields and cost of funds rates used in the stress test. (See the ''Risk Measures'' worksheet for the resulting interest rate series used in the stress test.)

c. The Credit Loss Module's state-level loss rates, as described in section 2.4 entitled, ''Calculation of Loss Rates for Use in the Stress Test,'' are entered into the ''Risk Measures'' worksheet and applied to the loan balances that exist in each state. The distribution of loan balances by state is used to allocate new loans that replace loan products that roll off the balance sheet through time. The loss rates are applied both to the initial volume and to new loan volume that replaces expiring loans. The total life of loan losses that are expected at origination are then allocated through time based on a set of user entries describing the time-path of losses.

d. The loss rates estimated in the credit risk component of the stress test are based on an origination year concept, adjusted for loan seasoning. All losses arising from loans originated in a particular year are expressed as lifetime age-adjusted losses irrespective of when the losses actually occur. The fraction of the origination year loss rates that must be used to allocate losses through time are 43 percent to year 1, 17 percent to year 2, 11.66 percent to year 3, and 4.03 percent for the remaining years. The total allocated losses in any year are expressed as a percent of loan volume in that year to reflect the conversion to exposure year.

4.4 Loan and Cashflow Accounts

The worksheet labeled ''Loan and Cashflow Data'' contains the categorized loan data and cashflow accounting relationships that are used in the stress test to generate projections of Farmer Mac's performance and condition. As can be seen in the worksheet, the steady-state formulation results in account balances that remain constant except for the effects of discontinued programs and the LLRT adjustment. For assets with maturities under 1 year, the results are reported for convenience as though they matured only one time per year with the additional convention that the earnings/cost rates are annualized. For the pre-1996 Act assets, maturing balances are added back to post-1996 Act account balances. The liability accounts are used to satisfy the accounting identity, which requires assets to equal liabilities plus owner equity. In addition to the replacement of maturities under a steady state, liabilities are increased to reflect net losses or decreased to reflect resulting net gains. Adjustments must be made to the long- and short-term debt accounts to maintain the same relative proportions as existed at the beginning period from which the stress test is run with the exception of changes associated with the funding of defaulted loans during the LLRT period. The primary receivable and payable accounts are also maintained on this worksheet, as is a summary balance of the volume of loans subject to credit losses.

4.5 Income Statements

a. Information related to income performance through time is contained on the worksheet named ''Income Statements.'' Information from the first period balance sheet is used in conjunction with the earnings and cost-spread relationships from Farmer Mac supplied data to generate the first period's income statement. The same set of accounts is maintained in this worksheet as ''Loan and Cashflow Accounts'' for consistency in reporting each annual period of the 10-year stress period of the test with the exception of the line item labeled ''Interest reversals to carry loan losses'' which incorporates the LLRT adjustment to earnings from the ''Risk Measures'' worksheet. Loans that defaulted do not earn interest or guarantee and commitment fees during LLRT period. The income from each interest-bearing account is calculated, as are costs of interest-bearing liabilities. In each case, these entries are the associated interest rate for that period multiplied by the account balances.

b. The credit losses described in section 2.0, ''Credit Risk,'' are transmitted through the provision account as is any change needed to re-establish the target reserve balance. For determining risk-based capital, the reserve target is set to zero as previously indicated in section 4.2. Under the income tax section, it must first be determined whether it is appropriate to carry forward tax losses or recapture tax credits. The tax section then establishes the appropriate income tax liability that permits the calculation of final net income (loss), which is credited (debited) to the retained earnings account.

4.6 Balance Sheets

a. The worksheet named ''Balance Sheets'' is used to construct pro forma balance sheets from which the capital calculations can be performed. As can be seen in the Excel spreadsheet, the worksheet is organized to correspond to Farmer Mac's normal reporting practices. Asset accounts are built from the initial financial statement conditions, and loan and cashflow accounts. Liability accounts including the reserve account are likewise built from the previous period's results to balance the asset and equity positions. The equity section uses initial conditions and standard accounts to monitor equity through time. The equity section maintains separate categories for increments to paid-in-capital and retained earnings and for mark-to-market effects of changes in account values. The process described below in the ''Capital'' worksheet uses the initial retained earnings and paid-in-capital account to test for the change in initial capital that permits conformance to the statutory requirements. Therefore, these accounts must be maintained separately for test solution purposes.

b. The market valuation changes due to interest rate movements must be computed utilizing the linearly interpolated schedule of estimated equity effects due to changes in interest rates, contained in the ''Assumptions & Relationships'' worksheet. The stress test calculates the dollar change in the market value of equity by multiplying the base value of equity before any rate change from Farmer Mac's interest rate risk measurement results, the linearly interpolated estimated effective duration of equity, and the percentage change in interest rates. In addition, the earnings effect of the measured dollar change in the market value of equity is estimated by multiplying the dollar change by the blended cost of funds rate found on the ''Assumptions & Relationships'' worksheet. Next, divide by 2 the computed earnings effect to approximate the impact as a theoretical shock in the interest rates that occurs at the mid-point of the income cycle from period t_0 to period t_1. The measured dollar change in the market value of equity and related earnings effect are then adjusted to reflect any tax-related benefits. Tax adjustments are determined by including the measured dollar change in the market value of equity and the earnings effect in the tax calculations found in the ''Income Statements'' worksheet. This approach ensures that the value of equity reflects the economic loss or gain in value of Farmer Mac's capital position from a change in interest rates and reflects any immediate tax benefits that Farmer Mac could realize. Any tax benefits in the module are posted through the income statement by adjusting the net taxes due before calculating final net income. Final net income is posted to accumulated unretained earnings in the shareholders' equity portion of the balance sheet. The tax section is also described in section 4.5 entitled, ''Income Statements.''

c. After one cycle of income has been calculated, the balance sheet as of the end of the income period is then generated. The ''Balance Sheet'' worksheet shows the periodic pro forma balance sheets in a format convenient to track capital shifts through time.

d. The stress test considers Farmer Mac's balance sheet as subject to interest rate risk and, therefore, the capital position reflects mark-to-market changes in the value of equity. This approach ensures that the stress test captures interest rate risk in a meaningful way by addressing explicitly the loss or gain in value resulting from the change in interest rates required by the statute.

4.7 Capital

The ''Capital'' worksheet contains the results of the required capital calculations as described below, and provides a method to calculate the level of initial capital that would permit Farmer Mac to maintain positive capital throughout the 10-year stress test period.

5.0 Capital Calculation

a. The stress test computes regulatory capital as the sum of the following:

(1) The par value of outstanding common stock;

(2) The par value of outstanding preferred stock;

(3) Paid-in capital;

(4) Retained earnings; and

(5) Reserve for loan and guarantee losses.

b. Inclusion of the reserve account in regulatory capital is an important difference compared to minimum capital as defined by the statute. Therefore, the calculation of reserves in the stress test is also important because reserves are reduced by loan and guarantee losses. The reserve account is linked to the income statement through the provision for loan-loss expense (provision). Provision expense reflects the amount of current income necessary to rebuild the reserve account to acceptable levels after loan losses reduce the account or as a result of increases in the level of risky mortgage positions, both on- and off-balance sheet. Provision reversals represent reductions in the reserve levels due to reduced risk of loan losses or loan volume of risky mortgage positions. The liabilities section of the ''Balance Sheets'' worksheet also includes separate line items to disaggregate the Guarantee and commitment obligation related to the Financial Accounting Standards Board Interpretation No. 45 (FIN 45) Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others. This item is disaggregated to permit accurate calculation of regulatory capital post-adoption of FIN 45. When calculating the stress test, the reserve is maintained at zero to result in a risk-based capital requirement that includes reserves, thereby making the requirement comparable to the statutory definition of regulatory capital. By setting the reserve requirement to zero, the capital position includes all financial resources Farmer Mac has at its disposal to withstand risk.

5.1 Method of Calculation

a. Risk-based capital is calculated in the stress test as the minimum initial capital that would permit Farmer Mac to remain solvent for the ensuing 10 years. To this amount, an additional 30 percent is added to account for managerial and operational risks not reflected in the specific components of the stress test.

b. The relationship between the solvency constraint (*i.e.*, future capital position not less than zero) and the risk-based capital requirement reflects the appropriate earnings and funding cost rates that may vary through time based on initial conditions. Therefore, the minimum capital at a future point in time cannot be directly used to determine the risk-based capital requirement. To calculate the risk-based capital requirement, the stress test includes a section to solve for the minimum initial capital value that results in a minimum capital level over the 10 years of zero at the point in time that it would actually occur. In solving for initial capital, it is assumed that reductions or additions to the initial capital accounts are made in the retained earnings accounts, and balanced in the debt accounts at terms proportionate to initial balances (same relative proportion of long- and short-term debt at existing initial rates). Because the initial capital position affects the earnings, and hence capital positions and appropriate discount rates through time, the initial and future capital are simultaneously determined and must be solved iteratively. The resulting minimum initial capital from the stress test is then reported on the ''Capital'' worksheet of the stress test. The ''Capital'' worksheet includes an element that uses Excel's ''solver'' or ''goal seek'' capability to calculate the minimum initial capital that, when added (subtracted) from initial capital and replaced with debt, results in a minimum capital balance over the following 10 years of zero.

PART 655—FEDERAL AGRICULTURAL MORTGAGE CORPORATION DISCLOSURE AND REPORTING REQUIREMENTS

3. The authority citation for part 655 continues to read as follows:

Authority: Sec. 8.11 of the Farm Credit Act (12 U.S.C. 2279aa–11).

Subpart B—Reports Relating to Securities Activities of the Federal Agricultural Mortgage Corporation

§ 655.50 [Amended]

4. Section 655.50 is amended by removing the word ''should'' and adding in its place, the word ''must'' in the second sentence of paragraph (c).

Dated: November 10, 2005.

Jeanette Brinkley,

Secretary, Farm Credit Administration Board.

[FR Doc. 05–22730 Filed 11–16–05; 8:45 am]

BILLING CODE 6705–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2005–22856; Airspace Docket No. 05–AAL–36]

Proposed Establishment of Class E Airspace; Toksook Bay, AK

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This action proposes to establish Class E airspace at Toksook Bay, AK. A new Standard Instrument Approach Procedure (SIAP) is being published for the Toksook Bay Airport. Adoption of this proposal would result in establishment of Class E airspace upward from 700 feet (ft.) and 1,200 ft. above the surface at Toksook Bay, AK.

DATES: Comments must be received on or before January 3, 2006.

ADDRESSES: Send comments on the proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2005–22856/ Airspace Docket No. 05–AAL–36, at the beginning of your comments. You may also submit comments on the Internet at *http://dms.dot.gov*. You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

An informal docket may also be examined during normal business hours at the office of the Manager, Safety, Alaska Flight Service Operations, Federal Aviation Administration, 222 West 7th Avenue, Box 14, Anchorage, AK 99513–7587.

FOR FURTHER INFORMATION CONTACT: Gary Rolf, Federal Aviation Administration, 222 West 7th Avenue, Box 14, Anchorage, AK 99513–7587; telephone number (907) 271–5898; fax: (907) 271–2850; email: *gary.ctr.rolf@faa.gov*. Internet address: *http://www.alaska.faa.gov/at*.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2005–22856/Airspace Docket No. 05–AAL–36.'' The postcard will be date/time stamped and returned to the commenter.

All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in light of comments received. All comments submitted will be available for examination in the public docket both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of Notice of Proposed Rulemaking's (NPRM's)

An electronic copy of this document may be downloaded through the Internet at *http://dms.dot.gov*. Recently published rulemaking documents can also be accessed through the FAA's Web page at *http://www.faa.gov* or the Superintendent of Document's Web page at *http://www.access.gpo.gov/nara*.

Additionally, any person may obtain a copy of this notice by submitting a request to the Federal Aviation Administration, Office of Air Traffic Airspace Management, ATA–400, 800 Independence Avenue, SW., Washington, DC 20591 or by calling (202) 267–8783. Communications must identify both docket numbers for this notice. Persons interested in being placed on a mailing list for future NPRM's should contact the FAA's Office of Rulemaking, (202) 267–9677, to request a copy of Advisory Circular No. 11–2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

The Proposal

The FAA is considering an amendment to the Code of Federal Regulations (14 CFR Part 71), which would create new Class E airspace at Toksook Bay, AK. The intended effect of this proposal is to create Class E airspace upward from 700 ft. and 1,200 ft. above the surface to contain Instrument Flight Rules (IFR) operations at Toksook Bay, AK.

The FAA Instrument Flight Procedures Production and Maintenance Branch has developed a new SIAP for the Toksook Bay Airport. The new approach is the Area Navigation Global Positioning System Runway RWY 34, original. New Class E controlled airspace extending upward from 700 ft. and 1,200 ft. above the surface within the Toksook Bay Airport area would be established by this action. The proposed airspace is sufficient in size to contain aircraft executing the new instrument procedure at the Toksook Bay Airport. Airspace from 1,200 ft. AGL and more than 12 miles from the shoreline will be excluded from this action. That controlled airspace outside 12 miles from the shoreline within 35 miles of the airport will be created in coordination with the FAA's Airspace and Rules, Office of System Operations Airspace and AIM, by modifying existing Offshore Airspace Area; Norton Sound Low Control Area, in accordance with FAA Order 7400.2.

The area would be depicted on aeronautical charts for pilot reference. The coordinates for this airspace docket are based on North American Datum 83. The Class E airspace areas designated as 700/1200 foot transition areas are published in paragraph 6005 in FAA Order 7400.9N, *Airspace Designations and Reporting Points*, dated September 1, 2005, and effective September 15, 2005, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designations listed in this document would be published subsequently in the Order.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal.