

**DEPARTMENT OF THE TREASURY****Office of the Comptroller of the Currency****12 CFR Part 3**

[Docket No. 95-17]

**FEDERAL RESERVE SYSTEM****12 CFR Part 208**

[Docket No. R-0802]

**FEDERAL DEPOSIT INSURANCE CORPORATION****12 CFR Part 325****Joint Agency Policy Statement: Supervisory Policy Statement Concerning a Supervisory Framework for Measuring and Assessing Banks' Interest Rate Risk Exposure**

**AGENCIES:** Office of the Comptroller of the Currency (OCC), Treasury; Board of Governors of the Federal Reserve System (Board); and Federal Deposit Insurance Corporation (FDIC).

**ACTION:** Policy statement; request for comment.

**SUMMARY:** The OCC, the Board, and the FDIC (collectively, "the agencies") seek comment on a proposed interagency Supervisory Policy to establish a uniform supervisory framework for measuring banks' interest rate risk (IRR) exposures. The proposed policy establishes a framework that the agencies would use to measure and monitor the level of IRR at individual banks. The measurement process proposed and described in this policy statement is intended to facilitate the agencies' assessment of a bank's IRR exposure and its capital adequacy. The results of the supervisory and internal models would be one factor used by the agencies in their assessments' of a bank's capital adequacy for IRR. Other factors that the agencies will consider include the quality of the bank's IRR risk management process, the overall financial condition of the bank, and the level of other risks at the bank for which capital is needed. Pursuant to the final rule banks may be required to hold additional capital.

The proposed supervisory framework provides measures of the change in a bank's economic value for a given change in interest rates using a supervisory model. The framework also considers the results of a bank's internal model results when that model provides a measure of the change in a bank's economic value. Banks not specifically

exempted from detailed IRR reporting would submit new IRR Call Report schedules indicating the maturity, repricing, or price sensitivity of their various on- and off-balance sheet instruments. A bank also would have the option of reporting its internal model estimates of the price sensitivity of its major portfolios and its economic value.

Concurrent with the publication of this proposed Supervisory Policy statement, the agencies have issued a final rule that amends their capital guidelines for IRR. Those amendments indicate that the agencies will consider in their evaluation of a bank's capital adequacy, the exposure of a bank's capital and economic value to changes in interest rates. The amendments are in response to section 305 of the FDIC Improvement Act of 1991 (FDICIA) which requires the agencies to amend their risk-based capital standards to take adequate account of interest rate risk.

As noted in the discussion of the final rule on IRR, the agencies intend, at a subsequent date, to incorporate explicit minimum requirements for IRR into their risk-based capital standards. The agencies anticipate that the measurement framework described in this proposed policy, will be the basis for such a capital requirement. Toward that end, the agencies intend to work with the industry to evaluate the reliability and accuracy of the results from the supervisory model and bank internal models. Any explicit minimum capital charge would be implemented through the agencies' rulemaking process and would provide the opportunity for public comment before a final rule is adopted.

**DATES:** Comments must be received by October 2, 1995.

**ADDRESSES:** Interested parties are invited to submit written comments to any or all of the agencies. All comments will be shared among the agencies.

**OCC:** Written comments should be submitted to Docket No. 95-17, Communications Division, Ninth Floor, Office of the Comptroller of the Currency, 250 E Street, S.W., Washington, D.C. 20219, Attention: Karen Carter. Comments will be available for inspection and photocopying at that address.

**Board of Governors:** Comments, which should refer to Docket No. R-0802, may be mailed to Mr. William Wiles, Secretary, Board of Governors of the Federal Reserve System, 20th and Constitution Avenue, N.W., Washington, D.C. 20551. Comments addressed to Mr. Wiles may also be delivered to the Board's mail room

between 8:45 a.m. and 5:15 p.m. and to the security control room outside of those hours. Both the mail room and control room are accessible from the courtyard entrance on 20th Street between Constitution Avenue and C Street, N.W. Comments may be inspected in Room B-1122 between 9:00 a.m. and 5:00 p.m., except as provided in 261.8 of the Board's "Rules Regarding Availability of Information," 12 CFR 261.8.

**FDIC:** Written comments should be sent to, Jerry L. Langley, Executive Secretary, Attention: Room F-402, Federal Deposit Insurance Corporation, 550 17th Street, N.W., Washington, D.C. 20429. Comments may be hand-delivered to Room F-402, 1776 F Street N.W., Washington, D.C. 20429, on business days between 8:30 a.m. and 5:00 p.m. [FAX number (202) 898-3838; Internet address: comments@fdic.gov]. Comments will be available for inspection and photocopying in Room 7118, 550 17th Street, N.W., Washington, D.C. 20429, between 9:00 a.m. and 4:30 p.m. on business days.

**FOR FURTHER INFORMATION CONTACT:**

**OCC:** Christina Benson, Capital Markets Specialist, or Lisa Lintecum, National Bank Examiner (202/874-5070), Office of the Chief National Bank Examiner; Michael Carhill, Financial Economist, Risk Analysis Division (202/874-5700); and Ronald Shimabukuro, Senior Attorney, Bank Operations and Assets Division (202/874-4460), Office of the Comptroller of the Currency, 250 E Street, S.W., Washington, D.C. 20219.

**Board of Governors:** James Houpt, Assistant Director (202/452-3358), William F. Treacy, Supervisory Financial Analyst (202/452-3859), Division of Banking Supervision and Regulation; Gregory Baer, Managing Senior Counsel (202/452-3236), Legal Division, Board of Governors of the Federal Reserve System. For the hearing impaired only, Telecommunication Device for the Deaf (TDD), Dorothea Thompson (202/452-3544), Board of Governors of the Federal Reserve System, 20th and C Streets, N.W., Washington, D.C. 20551.

**FDIC:** William A. Stark, Assistant Director (202/898-6972) or Phillip J. Bond, Senior Capital Markets Specialist (202/898-3519), Division of Supervision, Federal Deposit Insurance Corporation, 550 17th Street, N.W., Washington, D.C. 20429.

**SUPPLEMENTARY INFORMATION:****I. Introduction**

Interest rate risk is the risk that changes in market interest rates will have an adverse effect on a bank's

earnings and its underlying economic value. Changes in interest rates affect a bank's reported earnings by changing its net interest income and the level of other interest-sensitive income and operating expenses. The underlying economic value of the bank's assets, liabilities, and off-balance sheet instruments also is affected by changes in interest rates. These changes occur because the present value of future cash flows and in some cases, the cash flows themselves, are affected when interest rates change. The combined effects of the changes in these present values reflect the change in the bank's underlying economic value.

Interest rate risk is inherent in the role of banks as financial intermediaries. However, a bank that has an excessive level of interest rate risk can face diminished future earnings, impaired liquidity and capital positions, and, ultimately, may jeopardize its solvency.

The agencies believe that safety and soundness requires effective management and measurement of interest rate risk, and each agency has provided supervisory guidance to banks and examiners on this subject. In addition, the agencies believe that a bank's capital adequacy should be assessed in the context of the risks it faces, including interest rate risk. Section 305 of FDICIA Pub. L. 102-242 (12 U.S.C. 1828 note), on which a final rule is being issued at the same time as this statement, specifically requires the agencies to take account of interest rate risk in assessing capital adequacy. Both of these aspects of interest rate risk depend on, among other things, a meaningful measurement of the bank's risk exposure.

The agencies believe that a bank should have an IRR measurement system that is commensurate with the nature and scope of its IRR exposures. Among the difficulties in performing a supervisory evaluation of interest rate risk, however, is that measurement systems and management philosophies can differ significantly from one bank to another. As a result, although two banks may each be well-managed, their measured exposure may not be directly comparable. This difficulty has been magnified by the rapid pace of change in financial markets and instruments themselves.

In implementing Section 305 of FDICIA, and in light of the rapid evolution in financial instruments and practices, the agencies believe there is a need for a more formal supervisory assessment of banks' interest rate risk exposures. To support that effort, the agencies propose a measurement framework that includes a supervisory

measurement system ("supervisory model") that will, on a standardized basis, measure the risk of all banks not exempted from reporting additional information on their IRR exposures. In addition, banks will be encouraged to report, through a voluntary and confidential supplemental Call Report schedule, the results of their internal IRR measurement systems. These measured results would then serve as an additional source of information for an examiner's assessment of the bank's risk management and capital adequacy. The results also would provide information on industry trends and patterns that will better inform both present and future supervisory efforts related to interest rate risk.

The measurement framework described in this policy statement focuses on the exposure to a bank's underlying economic value from movements in market interest rates. The exposure to a bank's economic value, as used in this policy statement, is defined as the change in the present value of its assets, minus the change in the present value of its liabilities, plus the change in the present value of its off-balance sheet interest-rate positions. The agencies have chosen this focus because they believe that changes in a bank's economic value best reflect the potential impact of embedded options and the potential exposure that the bank's current business activities pose to the bank's future earnings stream, and hence, its ability to sustain adequate capital levels. Changes in economic value measure the effect that a change in interest rates will have on the value of all of the future cash flows generated by a bank's current financial positions, not just those cash flows which affect earnings over the few months or quarters. Thus, changes in economic value provide a more comprehensive measure of risk than measures which focus solely on the exposure to a bank's near-term earnings. It is for this reason that the agencies have amended their capital standards to identify explicitly a bank's exposure to declines in economic value from changes in interest rates as an important factor to consider in evaluating a bank's capital adequacy.

## II. Summary of Approach

In assessing the sensitivity of a bank's economic value to changes in interest rates, the agencies are proposing to use the results of a supervisory model and, for those electing to provide such analysis, the results of banks' own internal models. These assessments will rely on data reported in regulatory Call Reports. Recognizing that the burden for reporting IRR exposures would fall most

heavily on smaller organizations with limited resources, the policy statement makes provisions for smaller, well-managed institutions that are less likely to be significantly exposed to IRR to be exempt from additional reporting. As described in further detail in the policy statement, the agencies propose that banks with (i) assets under \$300 million, (ii) composite supervisory CAMEL ratings of 1 or 2 and, (iii) moderate or low holdings of assets with intermediate and long term maturity or repricing characteristics, be exempted from expanded reporting requirements for IRR.

Banks that are not specifically exempted by the proposed policy statement will submit additional Call Report information on the repricing and maturity of their portfolios. The proposed supervisory model applies a series of IRR risk-weights to a bank's reported repricing and maturity balances. These weights estimate the price sensitivity of a bank's reported balances to a 200 basis point increase and decrease in interest rates. The summation of these balances, along with certain price sensitivity information that a bank may be required to self-report, results in a net risk-weighted exposure for the bank. That exposure represents the estimated change in the bank's economic value to the specified rate change.

The proposed supervisory model represents a refinement of the model presented in the September 1993 notice of proposed rulemaking (September NPR) [58 FR 48206, September 14, 1993]. The September NPR solicited comments on a framework for measuring banks' exposure to IRR for capital purposes pursuant to Section 305 of FDICIA. The final rule for Section 305 does not incorporate an explicit measurement framework for IRR into the agencies' risk-based capital standards. The agencies have concluded that it is appropriate to first collect industry data and evaluate the performance of the measurement framework before explicitly incorporating the results of that framework into their risk-based capital standards. The data collected by the agencies will assist current supervisory efforts and will facilitate the development of a measurement framework that could be explicitly incorporated into capital standards in the future. This proposed policy statement would implement that supervisory measurement framework. The proposed framework is broadly consistent with the one discussed in the September NPR. The agencies, however, have made several refinements to the

supervisory model to improve its accuracy while still endeavoring to limit the burden of the expanded reporting and maintain model transparency. The refinements to the September NPR model include:

- (1) Separate risk-weights and reporting for residential adjustable-rate mortgages;
- (2) Separate risk-weights and reporting for residential fixed-rate mortgages and all other amortizing assets;
- (3) Self-reporting by banks of price sensitivities of instruments with complex and/or non-standardized cash flow characteristics such as structured notes, collateralized mortgage obligations (CMOs), and mortgage servicing rights;
- (4) Supplemental reporting for banks with concentrations in adjustable- and fixed-rate mortgage loans.
- (5) Greater flexibility in reporting deposits without stated maturity or repricing dates;
- (6) Separate reporting and treatment in the baseline schedule for residential mortgage loans which are held by the bank for sale and delivery to a secondary market participant under terms of a binding commitment.

A summary of the public comments and agency analysis that led to these refinements are included in section IV of this document and the refinements themselves are described in detail in the policy statement and accompanying reporting instructions.

For a bank choosing also to report the results of its internal IRR model, the agencies are proposing to collect the dollar change in value of the bank's major portfolios and the net change in the bank's economic value using the same rate scenario incorporated in the supervisory model. To the extent specific details concerning a bank's financial instruments are incorporated in an internal model with adequate integrity and reasonable assumptions, those results should provide the agencies with an improved understanding of a bank's IRR profile. For a bank reporting internal model results, an examiner would have the benefit of weighing the results of both measures in assessing a bank's overall IRR exposure for capital adequacy purposes. Moreover, comparisons between the results of the supervisory model and internal models are expected to aid the agencies in determining what, if any, refinements should be made to the proposed measurement framework before incorporating it into a minimum capital charge for IRR.

### III. CDFI Section 335 Considerations

On September 23, 1994 the Reigle Community Development and Regulatory Improvement Act of 1994 ("CDFI") (Pub. L. 103-325) was enacted. Section 335 of CDFI amended section 305 of FDICIA by instructing the

agencies to be sure that steps taken to implement Section 305 "take into account the size and activities of the institutions and do not cause undue reporting burdens." The agencies believe that the Congressional mandate to avoid undue reporting burdens is also applicable and desirable for purposes of implementing the proposed policy statement. Consequently, as already noted, the agencies have formulated a reporting exemption test that takes into account the size and activities of an institution. In addition, the reporting requirements for the supervisory model also considers the nature and scope of a bank's activities. Banks holding certain types of financial instruments that often have complex or nonstandardized cash flow characteristics will be expected to have the ability to calculate on their own, or obtain from reliable sources, estimates of those instruments' market value sensitivity. Banks with holdings of fixed- and adjustable-rate residential mortgage loans and securities that exceed certain levels would be required to report additional information on those portfolios to better assess the embedded option risks associated with those products.

### IV. September 1993 Notice of Proposed Rulemaking

#### A. Description of September NPR

In September 1993, the Banking Agencies issued a notice of proposed rulemaking (September NPR) [58 FR 48206, September 14, 1993] that solicited comments on a framework for measuring a bank's IRR exposure and determining the amount of capital the bank needed for IRR.

The framework outlined in the September NPR incorporated the use of a three-level measurement process to evaluate banks' IRR exposures. The first measure was a quantitative screen, based on existing Call Report information, that exempted potential low risk banks from additional reporting requirements. The exemption screen used two criteria: (1) The amount of a bank's off-balance-sheet interest rate contracts in relation to its total assets; and (2) the relation between a bank's fixed- and floating-rate loans and securities that mature or reprice beyond five years and its total capital.

Banks not meeting the proposed exemption test were required to calculate their economic exposure by either: (1) A supervisory model that measured the change in the economic value of bank for a specified change in interest rates; or (2) the bank's own IRR model, provided that the model was

deemed adequate by examiners for the nature and scope of the bank's activities and that it measured the bank's economic exposure using the interest rate scenarios specified by the agencies.

#### B. Comments on the September NPR Measurement Framework

The agencies collectively received a total of 133 comments on the September NPR. The majority of commenters were banks, Thrift, trade associations, bank consultants, and other government-sponsored agencies and regulators also commented. The majority of commenters responded favorably to modifications that the agencies made from an earlier, advanced notice of proposed rulemaking (ANPR) [57 FR 35507, August 10, 1992]. In particular, most commenters expressed strong support for using the results of a bank's own IRR model to determine its level of exposure and corresponding need for capital. Commenters noted the potential inaccuracies of standardized regulatory models as one reason for allowing the use of internal models. Internal models, they believed, would better capture the unique characteristics of individual bank portfolios. Many commenters also stated that permitting the use of internal models would provide banks with incentives to improve their internal risk measurement systems.

Many commenters raised concerns about various elements of the measurement framework outlined in the September NPR. Most commenters believed that the proposed treatment of non-maturity deposits understated their effective maturity. Others questioned the accuracy of the proposed supervisory model and the appropriateness of the proposed exemption test criteria.

#### C. Agencies' Responses to Comments

The agencies have carefully considered the concerns raised by commenters regarding the structure and elements of the proposed measurement framework and the accuracy of the proposed supervisory model. Although the agencies have decided to retain many of the principles and structures outlined in the September NPR framework, the agencies are also proposing several modifications and refinements to that framework. These modifications include changes to the proposed exemption criteria, the structure of the supervisory model, and the treatment of certain types of assets and non-maturity deposits. These modifications are discussed in greater detail in the sections that follow.

## 1. Exemption Criteria

The September NPR included criteria that would exempt a bank from additional measurement and reporting requirements. The proposal set forth the following two criteria that a bank would have to meet to qualify for an exemption:

- (1) The total notional principal amount of all of the bank's off-balance-sheet interest rate contracts must not exceed 10 percent of its assets; and
- (2) 15 percent of the sum of the bank's fixed- and floating-rate loans and securities that mature or reprice beyond 5 years must be less than 30 percent of its total capital.

There was general support among commenters for some type of exemption. The majority of commenters addressing this issue, however, voiced concerns with the proposed test. Many commenters believed that a 10 percent threshold for off-balance sheet contracts would discourage the use of such instruments in managing and reducing IRR exposures. Commenters also expressed concerns that the maturity test, incorporated in the second criterion, used contractual maturities rather than expected average lives and would overstate the risk associated with amortizing loans and securities, such as mortgage-related products. Several commenters suggested modifying the criterion to use bank management's estimates of average lives, rather than contractual maturities.

Several commenters questioned whether the proposed exemption criteria provided sufficient safeguards against exempting banks that may pose significant risks to the Bank Insurance Fund due to their potential IRR exposures. A few commenters noted the potential for material intermediate-term maturity (e.g., 1- to 5-years) mismatches. A minority of commenters question the need for, or efficacy of, any exemption test.

The agencies continue to believe that an exemption is desirable and that section 335 of CDFI Bill reinforces the need to consider ways of minimizing burdens associated with this policy statement. The agencies also believe that there is a need to ensure sufficient safeguards against exempting banks that may pose significant systemic risks or costs to the Bank Insurance Fund. Consequently, the agencies propose to modify the exemption test to focus on three considerations: the size of the bank; the quality of its overall condition and management, as measured by its composite CAMEL rating; and the level of its potential repricing exposure as measured by its intermediate and

longer-term assets. Specifically, to be exempted, a bank would have to meet the all of the following three conditions:

- (1) The bank must have total assets of less than \$300 million; and
- (2) Have a "1" or "2" composite CAMEL<sup>1</sup> rating from its primary supervisor; and
- (3) The sum of:
  - (a) 30 percent of its loans and securities with contractual maturity or repricing dates between one and five years, and
  - (b) 100 percent of its loans and securities with contractual maturity or repricing dates beyond five years must be less than 30 percent of the bank's total assets.

Banks that meet this proposed exemption test could elect to submit the proposed IRR Call Report schedules on a voluntary basis. The agencies encourage such voluntary reporting.

The exemption test does not alleviate the need for an exempted bank to employ sound IRR measurement and management practices and to have sufficient capital for its risk exposure. Exempted banks will continue to be subject to safety and soundness IRR examinations that the agencies may conduct. As a result of such examinations, a bank that is exempt from this policy statement may be directed by their primary supervisor to improve its IRR measurement and management practices, or to hold additional capital for IRR. In addition, the agencies would retain the right to require any bank to comply with the provisions of this policy statement and any subsequent rulemakings regarding IRR.

## 2. Interest Rate Scenarios

The September NPR outlined a number of factors that should be considered in selecting an appropriate interest scenario for measuring banks' IRR exposures and evaluating capital adequacy. These factors included:

- (1) The time horizon over which banks and supervisors could reasonably be expected to identify risk and implement mitigating responses;
- (2) The likelihood of occurrence, as reflected by historical rate volatility; and

<sup>1</sup> CAMEL refers to the Uniform Financial Institution's Rating System that the agencies have adopted. Each bank is assigned a uniform composite rating based on an evaluation of pertinent financial and operational standards, criteria and principles. This overall rating is expressed through use of a numerical scale of "1" through "5" with "1" indicating the highest rating and "5" the lowest. The composite rating assess five key performance dimensions that are commonly identified by the acronym "CAMEL": Capital adequacy, Asset quality, Management, Earnings and Liquidity.

(3) The appropriate historical sample period used to determine the likelihood of a given rate movement.

The agencies sought comment on several alternative methodologies for developing appropriate interest rate scenarios, including both parallel and non-parallel changes in interest rates. Among the non-parallel methods, the interest rate scenario could be based upon observed nominal changes in interest rates, or upon observed proportional changes in interest rates. As an alternative, the agencies also sought comment on using a simple parallel shift in interest rates across the entire maturity spectrum ("parallel rate shocks").

The agencies received a range of comments on the selection and determination of the appropriate interest rate scenarios. Commenters were divided on whether a short or long historical sample was most appropriate for determining the potential range of interest rate movements. Those favoring a shorter sample period believed such a period best reflected current and likely probabilities of rate changes. Others favored a longer sample period, primarily to minimize the impact of any one rate cycle. Opinions were also divided on whether a monthly, quarterly, or annual time horizon was most appropriate for analyzing potential rate scenarios. The majority of commenters favored either a monthly or quarterly horizon, on the grounds that such time frames represented the time bank management would need to implement risk mitigating actions in response to an adverse movement in interest rates. Others, however, disagreed and favored the use of an annual time horizon.

Commenters also expressed diverse views on whether the proposed rate scenarios should be based on nominal or proportional changes in historical rates, or on the basis of a simple parallel rate shock. A majority of commenters argued against the use of parallel rate shocks, on the grounds that such scenarios were not realistic of probable future interest rate changes. Of these commenters, most favored scenarios that would be based on proportional rate changes, such that the size of the rate change used to measure exposures would depend upon, and vary with, the current level of market interest rates. Other commenters, however, favored the use of parallel rate shocks, primarily on the grounds of simplicity and ease of understanding.

The agencies propose to use a simple 200 basis point, instantaneous parallel upward and downward shift in interest rates for measuring and evaluating

banks' exposures for purposes of assessing capital adequacy. The agencies believe that such rate movements are realistically conservative given the movements in interest rates experienced in 1994. They also believe that such rate scenarios are sufficiently transparent and easy to understand that they can be easily incorporated into either a bank's own IRR model or the supervisory model. The scenarios are incorporated into the proposed supervisory model via the proposed risk-weights that are applied to a bank's reported maturity and repricing balances.

The agencies stress that their adoption of these rate scenarios does not replace the need for a bank to evaluate its IRR exposure over a wider range of possible rate changes for its own risk management purposes. Such rate changes may include non-parallel yield curve shifts and gradual, as well as immediate, rate changes. To ensure greater consistency, however, in the agencies' assessments of banks' exposures and their need for capital, banks are encouraged to include the proposed instantaneous and parallel 200 basis point rate scenarios into their internal IRR measurement processes.

### 3. Structure of Supervisory Model

The supervisory model in the September NPR grouped assets, liabilities, and off-balance-sheet positions by various categories, based on their general cash flow and product characteristics. Each category and time band was assigned risk-weights corresponding to a rising rate scenario and a declining-rate scenario. The risk-weights were constructed by the agencies, using hypothetical market instruments that were representative of the category being measured. For amortizing instruments, the risk-weights incorporated assumptions about prepayments.

A number of commenters expressed concerns regarding the accuracy of the model proposed in the September NPR. Frequently cited concerns included: the use of hypothetical, rather than bank-specific, instruments to derive risk weights; the level of data aggregation; the use of standardized prepayment assumptions; and the treatment of interest rate protection agreements (caps and floors). A number of commenters voiced concerns about the treatment of residential mortgage-related products. In general, these commenters believed that additional detail on mortgage holdings, such as coupon information on fixed-rate mortgages, and more explicit information on periodic and lifetime interest caps for adjustable-rate

products, would improve the model's accuracy.

The agencies sought comment in the September NPR on whether commercial banks with portfolios that are similar to thrift should be required to use the Net Portfolio Value model used by the Office of Thrift Supervision (OTS) for federally-supervised thrift institutions. Most commenters believed that such a requirement would impose substantially greater reporting burdens without necessarily improving the accuracy of the measure and might create incentives for banks to substitute such a model for the judgment of bank management. A minority of commenters disagreed and stated that the approach and data used by the OTS were superior and more accurate than what the banking agencies had proposed.

The agencies have carefully considered commenters' concerns about the proposed supervisory model's accuracy. The agencies believe it is critical to have a supervisory model that can identify banks with significant IRR exposures. They also are attentive to the risk that model measurement errors could lead to undesirable incentives or incorrect assessments regarding the risk and complexity of products, activities, or banks. At the same time, the agencies recognize the need to balance the desire for increased accuracy against the potential costs of greater reporting detail and model complexity. The agencies are particularly concerned that the supervisory model retain sufficient transparency so that bankers can understand its methodology and anticipate and compute their bank's measured exposure and that it not replace the role or need for sound internal interest rate risk management systems.

The agencies intend to make five modifications to the structure of the supervisory model to improve its accuracy and which are described below. The first four changes modify the basic supervisory model outlined in the September NPR. This revised basic model will be the baseline model for non-exempted banks. The last modification creates supplemental modules for banks that have concentrations in residential mortgage-related instruments. The agencies are mindful that the supplemental schedules will impose additional reporting requirements for some banks. Nonetheless, the agencies are concerned that the baseline model may not be sufficiently accurate to capture the risk at banks with significant holdings of mortgage loans or mortgage pass-through securities, and therefore propose to require additional reporting

for those banks. A detailed description of the model, the risk weights, and information requirements are discussed in the policy statement. Schedule 1, provided in the attached policy statement, illustrates the type of information that will be used in the baseline supervisory model, while Schedules 2-4 illustrate the information used for the supplemental modules.

a. *Adjustable-rate residential mortgages.* The first modification that the agencies have made is to treat adjustable-rate residential mortgage loans and securities (ARMs) separately from fixed-rate residential mortgage assets. As modified, information on ARMs will be reported by a bank on the basis of the reset frequency of the ARM's pricing index, rather than by the ARM's next date to repricing. In addition, a bank will report ARMs that are currently within 200 basis points of their lifetime cap separately from those ARMs that are further away from their lifetime caps. The agencies believe that this stratification of ARM products will provide a better reflection of their potential price sensitivity to changes in market interest rates than the treatment described in the September NPR.

b. *Fixed-rate residential mortgages and other amortizing assets.* The second modification the agencies made is to treat fixed-rate residential mortgage assets separately from other amortizing assets. In the September NPR, these assets had been combined into a single category. As a result of this combination, the same prepayment assumptions were applied to all amortizing assets. By separating these two categories, the agencies propose to apply different prepayment assumptions to the two categories.

c. *Self-reporting of market value sensitivities.* The third modification will require a bank that holds certain types of financial instruments to provide in its Call Report submissions, estimates of changes in market value sensitivities of those instruments for the specified 200 basis point interest rate scenarios. These estimates may be obtained from the bank's own internal risk measurement systems or from reliable third-party sources, provided that the bank knows, understands, and documents the assumptions underlying those estimates. All estimates and supporting documentation will be subject to examiner review. The September NPR used this approach for certain mortgage derivatives securities. The agencies propose to extend this treatment to other products. The products for which banks would be required to self-report market value sensitivities generally have complex options or cash flow

characteristics. These characteristics make it difficult to adequately measure these products in a standardized model without collecting detailed transaction-oriented data.

Self-reporting of market value sensitivities generally would be required for the following products or portfolios:

(1) All mortgage-backed derivative securities that meet the FFIEC's definition of "high-risk."<sup>2</sup>

(2) All structured notes, as defined in the Call Report instructions;

(3) Non-high-risk mortgage derivative securities when those holdings represent 10 percent or more of a bank's assets.

(4) Mortgage servicing rights that are capitalized and reported on the bank's balance sheet;

(5) Off-balance-sheet interest rate options, caps, and floors, including interest rate swaps with embedded option characteristics.

The agencies believe that given the potential price sensitivity of these products or portfolios to interest rate changes, it is reasonable to expect banks to be able to calculate or obtain reliable estimates of their market value sensitivities. Industry comments on the availability of such information are especially welcomed.

d. *Trading account portfolios.* The agencies also propose to change the manner in which trading account positions are treated in the supervisory model. These changes are in response to commenters' concerns regarding the burden associated with distributing trading positions into the maturity ladder and applying a 200 basis point rate shock to those positions.

As modified, banks will be asked to self-report the change in the economic value of all of their trading account positions for a 100 basis point parallel increase or decrease in interest rates. This rate change, smaller than the 200 basis point change used for the rest of the bank's holdings, reflects the shorter holding period typical for trading account positions. It also is similar to the 100 basis point scenario used by the Basle Committee on Banking Supervision (Basle Committee) in its April 1995 proposal on capital requirements for the market risks of traded debt securities.<sup>3</sup>

The agencies believe the self-reporting treatment for trading accounts is

<sup>2</sup>Effective February 10, 1992, the agencies and the Office of Thrift Supervision adopted revised supervisory policies on securities activities that were developed under the auspices of the FFIEC. The revised policies established a framework for identifying "high-risk mortgage derivative products."

<sup>3</sup>The Basle Committee on Banking Supervision is a committee of banking supervisory authorities which was established by the central-bank Governors of the Group of Ten countries in 1975.

consistent with supervisory guidance issued by each of the agencies that directs banks with significant trading activities to have internal risk measurement and limit systems commensurate with the size and complexity of their activities.

As previously noted, the Basle Committee has recently released for comment a proposal to incorporate the market risks of trading activities into the Basle Accord risk-based capital standards.<sup>4</sup> The agencies published in the **Federal Register** on July 25, 1995 (60 FR 38082) a notice of proposed rulemaking on the Basle market risk proposal. If the agencies adopt a final rule to implement the Basle market risk proposal for banks with a large concentration of trading activities, the agencies anticipate that modifications to this policy statement will be required to ensure that IRR exposures arising from those activities are not "double-counted." One approach that the agencies are considering is to exclude trading activities from this proposed policy statement and IRR measure for those banks that are subject to the market risk proposal. If such an approach is adopted, those banks would be exempted from having to report the changes in the market value of their trading portfolios for the IRR measure. If, however, a bank's trading portfolio offsets the exposure from other components of the bank's balance sheet, this treatment would overstate the bank's total IRR exposure.

e. *Supplemental modules.* The final modification made by the agencies to the supervisory model structure is the development of supplemental modules for fixed-rate and adjustable-rate residential mortgage loans and pass-through securities. A bank whose holdings of these products exceeds certain threshold levels will be required to report additional information on those holdings in their Call Report submissions. The agencies will apply expanded tables of risk-weights to those portfolios. The supplemental module for fixed-rate residential mortgages requires a bank to stratify its balances into eight coupon ranges. The agencies have developed separate risk-weights for each coupon range which reflect the differences in expected prepayment speeds that are associated with the

<sup>4</sup>The Committee's proposal is described in a consultative paper, entitled "Planned Supplement to the Capital Accord to Incorporate Market Risks," issued in Basle, Switzerland on April 12, 1995. Copies of that paper may be obtained by contacting: The OCC's Communications Division, Ninth Floor, Office of the Comptroller of the Currency, 250 E Street, S.W., Washington, D.C. 20219. A copy of the paper also is available at the FDIC Reading Room, 550 North 17th Street, NW, Washington, D.C.

underlying coupon rates. To develop these risk-weights, the agencies have used the September 30, 1994 pricing tables generated by the Office of Thrift Supervision's Net Portfolio Value Model.<sup>5</sup> The agencies will apply this supplemental module and associated risk-weights when a bank's holdings of fixed-rate residential mortgage loans and pass-through securities represent 20 percent or more of its total assets. Schedule 2 in the attached policy statement illustrates the information that will be used in the supplemental module for fixed-rate residential mortgages. This expanded module will be optional for a bank whose holdings of these instruments are less than 20 percent of its assets.

Two levels of supplemental modules have been developed by the agencies for adjustable-rate residential mortgages. The first level, illustrated by Schedule 3 in the attached policy statement, requires information on ARMs to be stratified by reset frequency (as in the baseline model), periodic caps, and the ARMs' distances from lifetime caps. This module will be used by the agencies when a bank's ARM holdings are greater than 10 but less than 25 percent of its assets. The second level, illustrated by Schedule 4 in the attached policy statement, requires that ARM balances be further stratified by the underlying rate index of the ARM. This module will apply to banks whose holdings equal or exceed 25 percent of their total assets. The agencies have developed risk-weights that correspond with each various reset frequency, lifetime cap, periodic cap, and, index combination, again using pricing tables generated from the OTS Net Portfolio Value Model.

The agencies are mindful that many commenters to the September NPR raised concerns about tradeoffs between attempts to improve the supervisory model accuracy and associated reporting burdens, especially with regards to the use of the OTS model. Nonetheless, the agencies believe the distribution of coupons for fixed-rate mortgage portfolios and the interaction of the parameters illustrated in Schedules 3 and 4 significantly affect the price sensitivity of mortgage loans and securities. The agencies believe that by explicitly considering these parameters, the supplemental modules will enhance the accuracy of the supervisory model. The agencies believe that this increased accuracy is

<sup>5</sup>Appendix 4 of the policy statement provides a description of the derivation of the risk-weights for the baseline supervisory model and supplemental modules.

warranted due to the increased holdings of mortgage products among commercial and savings banks. They also note the flexibility that many banks exercise in their ability to tailor the various pricing combinations of their ARM products. As banks expand their activities in these products, the agencies are particularly concerned that banks not ignore the potential impact and interaction of these pricing parameters.

Draft instructions for completing the supplemental modules and a technical description of the risk-weights used in the modules are provided in the appendices 2 and 4 to the proposed policy statement.

4. *Non-maturity deposit assumptions.* The September NPR established limits on the maximum maturities that a bank could attribute to its non-maturity deposits when measuring its IRR exposures for capital adequacy. Non-maturity deposits were defined to be those instruments without a specific maturity or repricing date and included demand deposits (DDA), negotiable order of withdrawal (NOW), savings, and money market deposit (MMDA) accounts. In the September NPR, banks were subject to the following constraints in distributing these deposits across time bands:

(1) A bank could distribute its DDA and MMDA accounts across any of the first three time bands, with a maximum of 40 percent of those balances in the 1 to 3 year time band;

(2) A bank could distribute its savings and NOW account balances across any of the first four time bands, with a maximum of 40 percent of the total of those balances in the 3 to 5 year time band.

The treatment of non-maturity deposits was one of the most commented upon aspects of the September NPR. Most commenters stated that the proposed treatment could, in many cases, understate the effective maturity of these deposits and urged the agencies to adopt a more flexible approach or extend the permissible maturities. Commenters

expressed concern that the adoption of the proposed rules could lead to incorrect assessments of risk exposures or inappropriate incentives to shorten asset maturities.

The agencies recognize that the treatment of non-maturity deposits will be, for many banks, the single most important assumption in measuring their IRR exposures. The agencies also agree that many banks historically have been able to exercise considerable flexibility in the timing and magnitude of pricing changes for these accounts. It is for this reason that the agencies had proposed to allow banks some flexibility in the treatment of these deposits. Nonetheless, the agencies believe that there are risks associated with assuming that a bank has sufficient flexibility in its management of these deposits so as to offset any IRR position it may have. While these deposits can, in many circumstances, help to mitigate a bank's IRR exposure, historical experience suggests that an institution can incur significant levels of IRR though it may have sizeable holdings of non-maturity deposits. The agencies also are concerned that increased competitive pressures and changing customer demographics may, over time, make these deposits more rate sensitive or prone to migration into other investment vehicles.

Given these considerations, the agencies believe it is appropriate to extend, but not eliminate, the maximum permissible maturities for non-maturity deposits. Within these maturity ranges, a bank would have the flexibility to distribute its balances based on its own assumptions and experience. The agencies will expect that bank management will be able to document to examiners the rationale for the treatment they have chosen.

In addition to extending permissible maturities, the agencies believe that demand deposit balances held by businesses should be treated differently

than demand balances held by other entities. In particular, the agencies believe that a shorter maturity is appropriate for commercial demand deposit accounts since many of these accounts are in the form of compensating balances.<sup>6</sup> The implicit earnings from these compensating balances are often used to offset service charges incurred by the customer, and the level of these implicit earnings attributed to the deposits is generally dependent upon the level of current market rates. As such, these balances behave very much like interest-sensitive balances. As market rates increase, the level of balances drops due to a higher earnings credit, while as rates decline, the level of balances will generally increase.

The agencies propose to extend the range of permissible maturities for non-maturity deposits by revising the distribution rules for those deposits. As proposed, a bank may distribute its deposits across time bands according to its individual assumptions and experience, subject to the following constraints:

(1) *Commercial Demand Deposits:* A bank would report 50 percent of its commercial demand deposits in the 0-3 month time band. The remaining balances may be distributed across the first four time bands, with a maximum of 20 percent of total balances in the 3-5 year time band.

(2) *Retail DDA, Savings, and NOW Accounts:* A bank may distribute the balances in these accounts across any of the first five time bands, with a maximum of 20 percent in the 5-10 year time band and no more than 40 percent combined in the 3-5 and 5-10 year bands.

(3) *MMDA Accounts:* A bank may distribute the balances in these accounts across any of the first three time bands, with a maximum of 50 percent in the 1-3 year band.

Table A summarizes the distribution that would result if a bank reported its balances so as to maximize its allowable maturities.

TABLE A.—MATURITY DISTRIBUTION LIMITS FOR NON-MATURITY DEPOSITS

	0-3 months (percent)	3-12 months (percent)	1-3 years (percent)	3-5 years (percent)	5-10 years (percent)
Commercial DDA .....	50	0	30	20	.....
Retail DDA .....	0	0	60	20	20
MMDA .....	0	50	50	.....	.....
Savings .....	0	0	60	20	20
NOW .....	0	0	60	20	20

<sup>6</sup> For purposes of this policy statement, the term "commercial" is used to mean "nonpersonal" as that term is defined under the Board of Governor

of the Federal Reserve System's Regulation D dealing with reserve requirements.

The agencies believe that these maturity limits provide appropriate guidelines for the purpose of standardized IRR measurement across the banking industry. These limits are not intended to replace the need for banks to evaluate and consider the sensitivity of their individual deposit bases when managing their IRR exposures. Examiners will consider a bank's assessment of its deposit base and how those assessments may differ from those used in the standardized supervisory model during the examination process when evaluating a bank's capital adequacy for IRR. The agencies do not propose to require banks to incorporate these assumptions into their internal IRR models when submitting internal model results to the agencies. Rather, through the examination process, examiners will consider whether the treatment used in the bank's model is appropriate, based on the analysis the bank provides.

#### 5. Use of a Bank's Internal IRR Model

The September NPR permitted a bank to use the results of its internal IRR model, as an alternative to the supervisory model, when assessing its need for capital for IRR, provided that its model was deemed adequate by the appropriate supervisor. Most commenters expressed strong support for using the results of a bank's internal model and believed that such a model would provide a more accurate assessment of risk than the proposed supervisory model.

The proposed policy statement provides for the consideration of a bank's internal model results in the assessment of that bank's level of IRR exposure and its need for capital. The results and quality of a bank's IRR measurement process will be one factor that examiners will consider in assessing a bank's need for capital. Among the factors that an examiner will consider when evaluating the quality of a bank's internal model is whether the risk profile it generates is an adequate measure of the bank's risk position, taking account of the types of instruments held or offered by the bank, the integrity and completeness of the data used in the model, and whether the assumptions and relationships underlying the model are reasonable. When assessing the exposure of a bank's economic value to changes in interest rates, examiners generally will place greater reliance on the results of a bank's internal model, rather than the supervisory model, provided that the bank's own model:

(1) Measures IRR from an economic perspective, as defined in this proposal;

(2) Uses the proposed supervisory scenario of an instantaneous and parallel 200 basis point movement in interest rates; and

(3) Is deemed by the examiner to provide a more accurate assessment of the bank's IRR risk profile than the supervisory model and meets the criteria discussed in Section VII of the proposed policy statement.

Reacting to the September NPR, some commenters requested the agencies to provide more explicit guidelines on the criteria that examiners will use to evaluate the adequacy of a bank's model. Other commenters cautioned the agencies against creating checklists of acceptable assumptions or measurement techniques. Such lists, they believed, would be incomplete given the diverse nature of banks and would stifle innovation in both risk measurement and product development. Some commenters also expressed concern that the assumptions and results of the supervisory model would be used as an explicit benchmark against which internal models would be judged and compared. These commenters were concerned that examiners would require the bank to conduct detailed and ongoing reconciliations between the bank's internal model and the supervisory model results. Such requirements, they believed, imposed unnecessary burdens and lessened the incentives for banks to use their own IRR models. Commenters raising these concerns generally urged the agencies to refrain from imposing supervisory model assumptions on bank models and from requiring banks that have their own internal model to report the information required for the supervisory model.

A key issue for the agencies, and one reason for delaying the implementation of explicit minimum capital standards for IRR, is the degree of specification the agencies need to establish when internal models are used for assessing regulatory capital adequacy. The agencies are aware that there are a variety of measurement systems and assumptions in use by the industry to measure exposures. While such variation may be appropriate given the diverse nature of commercial banks, it may lead to different assessments of risk and hence, capital requirements, for institutions that have similar risk profiles. More explicit guidance from the agencies on acceptable techniques and assumptions could help to lessen this variation and the risk that different amounts of capital may be required for banks with similar portfolios. Such guidance also would help reduce inconsistencies among examiners and agencies in evaluating

internal models. Efforts to devise more explicit guidance could, however, result in standards which are inappropriate for some institutions and may impede the industry's continued innovation of more sophisticated risk measurement techniques. The agencies welcome industry comments and suggestions on criteria and standards that they should establish for accepting internal model results.

With regard to reporting, the agencies propose that internal model results be reported on voluntary basis in a supplemental Call Report schedule like that portrayed in Schedule A. In response to the concerns of many commenters, the agencies propose that such reporting be on a confidential basis. Although many commenters to the September NPR requested that banks submitting internal model results not be required to also report the data required for the supervisory model, the agencies propose the data for the supervisory model be collected from all non-exempt banks. While recognizing the reporting burden that this imposes, the agencies believe that collecting data for both internal and the proposed supervisory model results will be important for effective supervision. Moreover, such data also will help the agencies evaluate the use of both the supervisory model and internal models as the basis for ultimately establishing minimum capital charges for IRR. By monitoring the maturity and repricing data collected for the supervisory model, the agencies will be able to assess whether supervisory and internal models results capture major shifts in portfolio compositions. Such monitoring may help identify key model assumptions that should be highlighted for examiner review and common strengths or weaknesses of internal measures when compared to the supervisory model. This information will help the agencies to provide better guidance to examiners and bankers on acceptable risk measurement techniques. It will also assist the agencies in determining what, if any, improvements could be made to the proposed supervisory model before explicit minimum capital charges are implemented.

#### V. Reporting Requirements

The implementation of this policy statement relies on changes to the Call Report. The examples of Call Report schedules shown in this proposal and the accompanying draft reporting instructions for those schedules are provided to assist the reader in analyzing the full implications of the proposal. Once comments are received on the measurement framework and any



modifications that the agencies believe are appropriate are made, the proposed Call Report schedules would also be amended to reflect those changes. At that time, the Call Report schedules would be submitted to FFIEC's Reports Task Force for inclusion in the comment document for March 1996 Call Report changes. The FFIEC will submit any Call Report changes to OMB for review as required under the Paperwork Reduction Act 44 U.S.C. 3501. Opportunity for public comment is always provided in relation to such a submission. Nevertheless, the agencies invite comments regarding the paperwork implications of this proposed policy statement, and will carefully consider any comments received in the development of the policy, as well as in recommending to the FFIEC proposed revisions to the Call Report.

## VI. Implementation Schedule

The agencies propose to require any additional reporting by non-exempt banks beginning with the March 1996 Call Reports. Full implementation of this policy statement for assessing the adequacy of bank capital would be effective December 31, 1996.

## VII. Requests for Comments

Comments are requested on all aspects of the proposed policy statement, including the suggested implementation schedule. The agencies particularly request comments on the following issues:

### 1. Exemption for Small Banks

The agencies propose to exempt certain small banks from the proposed policy statement and associated reporting requirements in order to lessen regulatory burdens on small, well-managed banks. The criteria for exemption considers the size of the bank, its overall CAMEL rating and the proportion of assets in intermediate and longer-term maturities.

a. Are the three criteria used for the exemption appropriate and reasonable?

b. Does the use of a bank's confidential CAMEL rating as one of the exemption criteria raise concerns that it may allow public users of Call Reports to discern a bank's CAMEL rating?

c. Does the proposed exemption criteria provide adequate safeguards against exempting banks that pose significant risks to the deposit insurance fund due to IRR?

### 2. Baseline Supervisory Model

The agencies are proposing that all non-exempted banks provide information for a baseline supervisory

model, the results of which, would be one factor that an examiner would use to assess a bank's level of IRR exposure and its need for capital. The baseline model uses seven time bands and applies a series of risk-weights to a bank's reported repricing and maturities balances in each of those time bands. For certain types of instruments or activities, a bank would be required to provide their own estimate of the change in value (self-report) of the instruments or activities for the specified interest rate scenario.

a. Does the proposed baseline supervisory model provide a reasonable basis for measuring a bank's IRR exposure? If not, what changes should be made to the model?

b. Are the amount and type of data proposed to be collected for the model appropriate and reasonable? If not, what changes could be made either to improve the usefulness of the data collected and/or reduce the burden of the proposal?

c. Do banks have the ability to calculate or obtain reasonable estimates of changes in market values for the items where self-reporting would be required? If not, how should such items be incorporated into the model? What factors should examiners consider in reviewing and assessing the reliability of bank's self-reported estimates?

d. Are the risk-weights proposed for the baseline model appropriate for an immediate and parallel 200 basis change in interest rates?

e. What portion, if any, of the proposed Call Report interest rate risk data and output from the proposed supervisory measurement system should be made available to the public through Call Report disclosures and the Uniform Bank Performance Report?

### 3. Treatment of Non-Maturity Deposits

The agencies propose limits on how a bank could distribute deposits without specified maturities (DDA, NOW, MMDA and savings) among the time bands for the supervisory model. In setting these limits, the agencies propose to treat commercial DDA balances separately from other DDA balances. As proposed, these limits only apply to the standardized supervisory model. The proposal would give an examiner the latitude to use a bank's own non-maturity deposit assumptions when evaluating the bank's capital adequacy for IRR provided that the bank can demonstrate and support those assumptions.

a. Is it appropriate to treat commercial DDA balances separately from other DDA balances?

b. Are the proposed maturity limits reasonable for a standardized reporting and measurement framework?

c. Is it appropriate to give examiners latitude to use a bank's own non-maturity deposit assumptions? If so, should the agencies specify minimum standards of analysis that will be acceptable for banks that wish to use their own assumptions? What types of analyses or factors should be incorporated into such standards?

### 4. Supplemental Modules for Mortgage Holdings

The agencies have proposed supplemental reporting and expanded risk-weight tables that would apply to banks that have concentrations in either fixed- or adjustable-rate residential mortgage products. These supplemental modules are designed to improve the supervisory model's accuracy by incorporating more fully, the parameters which may affect a mortgage's price sensitivity. The agencies propose to derive the risk-weights for the supplemental modules from pricing tables generated by the OTS's Net Portfolio Value Model (OTS model).

a. Is the information that would be collected for the supplemental modules appropriate and meaningful? If not, what changes should be made?

b. Are the thresholds proposed for requiring a bank to use the supplemental modules appropriate? If not, what threshold would be appropriate?

c. Do the supplemental modules and risk-weights sufficiently address concerns about the supervisory model's accuracy for banks with significant holdings of residential mortgage products? Will their use lessen the possibility of different regulatory treatment for institutions subject to the OTS model and those subject to this policy statement?

d. Will the use of the supplemental modules and the associated risk-weights used in those modules provide appropriate incentives for bank decision-making? Will their use discourage the development of a bank's own measurement capabilities?

e. Is the OTS model a reasonable source for developing the risk-weights used in this module? If not, are there other sources that would be more better?

f. The agencies believe the supplemental schedules related to mortgages are necessary because the price sensitivity of these products may vary substantially depending upon their coupon and cap characteristics. Are the proposed supplemental schedules appropriate and is the level of precision sought by the agencies reasonable?

### 5. Frequency of Updating Risk-Weights

In the interest of minimizing regulatory burden and providing greater transparency and certainty for the supervisory model, the agencies propose to update the risk weights for the baseline and supplemental schedules only in the event of a significant movement in market rates or other market factors that materially change the accuracy of the derived price sensitivities and associated risk weights. The OTS, in contrast, recalculates the price sensitivities for its model each quarter in order to achieve the precision it believes necessary to distinguish among different coupon rates of mortgage and other products.

a. Does the agencies' intention to limit the updating of risk-weights represent an appropriate balance among the objectives of minimizing regulatory burden, providing transparency and certainty, and providing sufficient measurement accuracy? If not, what other approaches would be appropriate?

b. Does this limitation on updating risk weights materially reduce the benefits and accuracy that the supplemental schedules for mortgages are designed to provide?

c. The supplemental reporting schedule for fixed-rate mortgages proposes to collect balance information by set coupon ranges. An alternative that the agencies have considered is to collect balances on the basis of their distance from prevailing current market coupons. Such a treatment would allow the risk weight applied to any given mortgage coupon to vary as its spread to current mortgage rates varies. Would such a treatment be an improvement over the approach currently proposed by the agencies? What, if any, difficulties would be encountered in reporting balances on the basis of their spread to current mortgage coupons?

### 6. Use of Carrying Values

In the interest of simplicity, the agencies propose to apply the risk weights, including those derived from the OTS price sensitivities, to the carrying value of a bank's instruments. To the extent that the carrying and market values differ, this introduces an error in the estimated price sensitivity of an instrument. The price sensitivity of instruments whose market values exceed their carrying values will be understated whereas the price sensitivity of instruments whose market values are below carrying values will be overstated.

a. Is the use of carrying values an appropriate simplification and does the use of carrying values for both assets

and liabilities sufficiently mitigate the materiality of such errors? If not, what other approach(es) would be appropriate?

### 7. Use of Internal Models

a. Does the proposed policy statement provide appropriate incentives for the use of banks' internal models and for banks to enhance their internal risk measurement systems?

b. Are the criteria described for assessing a bank's internal model appropriate? What other factors or criteria should examiners consider in assessing and reviewing a bank's internal model results?

c. Should the agencies provide additional guidelines on acceptable parameters, assumptions, and methodologies for internal models? What types of guidance would be most useful?

d. Is the proposed voluntary schedule for reporting internal model results appropriate? Are there sufficient incentives for banks to provide this information on a voluntary basis?

### 8. Treatment of Trading Account

The agencies propose that banks "self-report" the change in value of their trading account activities for a 100 basis point change in interest rates. The agencies also are considering whether trading account activities should be excluded from this policy statement and IRR measure if a bank is subject to the market risk capital requirements as proposed by the Basle Committee.

a. Is the 100 basis point interest rate scenario that the agencies propose to use when measuring the IRR exposure in a bank's trading portfolio appropriate? If not, what scenario would be appropriate?

b. What modifications, if any, should be made to this proposal for banks that may be subject to the Basle Committee's proposed capital standards for market risk in trading activities? What, if any, operational problems would be created if such banks were simply exempted from including and reporting their trading activities for purposes of this policy statement? What, if any, competitive issues would such a treatment present?

The text of the proposed policy statement follows. The first two appendices to the proposed policy statement provide proposed reporting schedules and accompanying instructions for those schedules that are under consideration by the agencies as part of this proposed policy statement. The third appendix provides the risk weights that would be used in the proposed supervisory model. The fourth

appendix provides technical descriptions of the derivation of the model's risk weights and the supplemental modules for residential mortgage-related products.

## Proposed Policy Statement

### I. Purpose

This supervisory policy statement is adopted by the Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board) and the Federal Deposit Insurance Corporation (FDIC), collectively, the "agencies." The statement establishes a supervisory framework that the agencies will use to assess and measure the interest rate risk (IRR) exposures of insured commercial and FDIC supervised savings banks. The results of this measurement framework will be used by the agencies in their evaluation of a bank's IRR exposure and whether it needs capital for IRR. Each agency has additional guidance and policies on the measurement and management of IRR. Those policies and guidelines set forth each agency's expectations regarding safe and sound banking practices for IRR management. This policy statement does not replace or supersede those issuances. The adoption of this policy statement by the agencies does not replace the agencies' expectations that all insured depository institutions have internal IRR measurement and management processes that are commensurate with the nature and level of their IRR exposures.

### II. Background

Interest rate risk is the adverse effect that changes in market interest rates have on a bank's earnings and its underlying economic value. Changes in interest rates affect a bank's earnings by changing its net interest income and the level of other interest-sensitive income and operating expenses. The underlying economic value of the bank's assets, liabilities, and off-balance sheet instruments also are affected by changes in interest rates. These changes occur because the present value of future cash flows and in some cases, the cash flows themselves, change when interest rates change. The combined effects of the changes in these present values reflect the change in the bank's underlying economic value.

Interest rate risk is inherent in the role of banks as financial intermediaries. Interest rate risk, however, introduces volatility to bank earnings and to the economic value of the bank. A bank that has an excessive level of IRR can diminish its future earnings, impair its

liquidity and capital positions, and, ultimately, jeopardize its solvency.

The agencies believe that safety and soundness requires effective management and measurement of IRR, and each agency has provided supervisory guidance to banks and examiners on this subject. In addition, the agencies believe that a bank's capital adequacy should be assessed in the context of the risks it faces, including interest rate risk. Both of these aspects of IRR depend, among other things, on a meaningful measurement of the bank's risk exposure.

The agencies believe that a bank should have an IRR measurement system that is commensurate with the nature and scope of its IRR exposures. Among the difficulties in performing a supervisory evaluation of interest rate risk, however, is that measurement systems and management philosophies can differ significantly from one bank to another. As a result, although two banks may each be well-managed, their measured exposure may not be directly comparable. This difficulty has been magnified by the rapid pace of change in financial markets and instruments themselves. In light of the rapid evolution in financial instruments and practices, the agencies believe there is a need for the more formal assessment of banks' IRR exposures that this policy statement establishes.

The measurement framework described in this policy statement focuses on the exposure to a bank's underlying economic value from movements in market interest rates. The exposure to a bank's economic value, as used in this policy statement, is defined as the change in the present value of its assets, minus the change in the present value of its liabilities, plus the change in the present value of its interest-rate related off-balance sheet positions. The agencies have chosen this focus because they believe that changes in a bank's economic value best reflect the potential effect of embedded options and the potential exposure that the bank's current business activities pose to the bank's future earnings stream, and hence, its ability to sustain adequate capital levels. Changes in economic value measure the effect that a change in interest rates will have on the value of all of the future cash flows generated by a bank's current financial positions, not just those cash flows which affect earnings over the few months or quarters. Thus, changes in economic value provide a more comprehensive measure of risk than measures which focus solely on the exposure to a bank's near-term earnings.

### III. Definitions and Applicability

#### A. Definitions

For the purpose of this policy statement, the following definitions apply:

(1) Interest Rate Risk Exposure means the estimated dollar decline in the economic value of the bank in response to a potential change in market interest rates under the specified interest rate scenarios, as measured by either the supervisory measure or, where applicable, a bank's internal model.

(2) Economic value of the bank means the net present value of its assets, minus the net present value of its liabilities, plus the net present value of its off-balance-sheet instruments.

(3) Interest rate scenarios means the specified changes in market interest rates used in calculating a bank's IRR exposure.

(4) Mortgage derivative products means interest-only and principal-only stripped mortgage-backed securities (IOs and POs), tranches of collateralized mortgage obligations (CMOs) and real estate mortgage investment conduits (REMICS), CMO and REMIC residual securities, and other instruments having the same characteristics as these securities.

(5) Net risk-weighted position means the sum of all risk-weighted positions of a bank's assets, liabilities and off-balance sheet items, plus the estimated change in market values for any self-reported items. For the purposes of the supervisory measure, this number represents the amount by which the economic value of the bank is estimated to change in response to a potential change in market interest rates under the specified interest rate scenarios.

(6) Non-maturity deposits mean demand deposit accounts (DDAs), money market deposit accounts (MMDAs), savings accounts, and negotiable order of withdrawal accounts (NOWs).

(7) Notional principal amount means the total dollar amount upon which payments on a contract are based.

(8) Structured notes mean those instruments identified as structured notes for Call Report purposes.

(9) Commercial demand deposits mean "nonpersonal" demand deposits as that term is defined under the Board of Governors of the Federal Reserve System's Regulation D.

#### B. Applicability and Exemption for Small Banks With Low Risk

All banks will be subject to the provisions of this policy statement and will be expected to provide information for the supervisory model, unless:

(1) The total assets of the bank are less than \$300 million, and;

(2) The bank's primary supervisor has assigned it a composite CAMEL rating of either "1" or "2"; and

(3) The sum of:

(a) 30% of the bank's fixed- and floating-rate loans and securities that have contractual maturity or repricing dates between 1 and 5 years, and

(b) 100% of the bank's fixed- and floating-rate loans and securities that have contractual maturity or repricing dates beyond 5 years,

is less than or equal to 30% of the bank's total assets.

Notwithstanding this exemption, the appropriate bank supervisor may apply any or all provisions of this policy statement to a bank if the supervisor deems such application is necessary to ensure the capital adequacy of the bank. This means that a bank which otherwise meets the exemption criteria may be required by the agencies to provide maturity and repricing data needed for the supervisory model. The agencies would intend to invoke this requirement only in circumstances where a bank appears to have excessive IRR levels and lacks sufficient internal risk measures such that a determination of its need for capital cannot be adequately assessed by the agencies. Banks that are exempted from the provisions of this policy statement would continue to be subject to safety and soundness IRR examinations and, as a result of such exams, could be directed by their supervisor to improve or strengthen their risk management practices, or hold additional capital for IRR.

If a previously exempted bank fails to meet the exemption criteria as of the June reporting date, it would be required to report the necessary data in the Reports of Condition and Income beginning in March of the next year regardless of its exemption status for the remainder of the current year. The one exception to this requirement is a bank that is involved in business combinations (pooling of interest, purchase acquisitions, or reorganizations) that would result in a change in their exemption status. In those instances, the bank will be subject to any new reporting requirements beginning with the first quarterly report date following the effective date of the business combination involving the bank and one or more depository institutions.

#### C. Specified Interest Rate Scenarios

For the purpose of measuring a bank's level of IRR exposure for capital adequacy, under either the supervisory model or a bank's internal model, the

agencies will consider both a rising and falling interest rate scenario based on an instantaneous uniform 200 basis point parallel change in market interest rates at all maturities. The agencies may, from time to time, modify the specified interest rate scenarios as appropriate, considering historical and current interest rate levels, interest rate volatilities and other relevant market and supervisory considerations.

#### IV. Description of the Supervisory Model

##### A. Overview

The intent of the supervisory model is to provide the agencies with a measure that estimates the sensitivity of a bank's economic value to a specified change in interest rates with sufficient accuracy so as to allow the agencies to identify banks that have high IRR exposures. The model applies a series of IRR risk weights to a bank's reported repricing and maturity balances. These weights estimate price sensitivity of a bank's reported balances to a 200 basis point change in interest rates. The summation of these weighted balances, along with certain price sensitivity information that a bank may be required to self-report, results in a net risk-weighted exposure for the bank. This net risk-weighted exposure is an estimate of the sensitivity of the bank's economic value to the specified change in interest rates.

The maturity and repricing information contained in the Call Report that all non-exempted banks are required to file, along with the IRR risk weights that are applied to that information, form the baseline supervisory model. Banks with concentrations in fixed- or adjustable-rate residential mortgage products are required to submit additional

information on those holdings through supplemental Call Report schedules. Supplemental IRR risk weights are applied to this information. These supplemental reporting schedules and IRR risk weights are referred to as supplemental modules to the baseline supervisory model.

##### B. Supervisory Model Calculations

The structure and format of the supervisory model is designed to allow a bank manager to be able to calculate the IRR exposure of his or her bank so as to not be dependent upon the agencies for obtaining model results. The calculation of a bank's IRR exposure using the supervisory model generally requires the following steps

(1) The bank's assets, liabilities, and off-balance sheet contracts must be assigned to the appropriate balance sheet categories based on the instrument's cash flow characteristics.

(2) Within each balance sheet category, each asset, liability or off-balance sheet contract must be assigned to the appropriate time band generally based on each instrument's remaining maturity or next repricing date.

(3) Balances within each time band must be multiplied by the appropriate risk weight to produce a risk-weighted position for each interest rate scenario.

(4) All risk-weighted positions must be summed to produce a net risk-weighted position for each interest rate scenario which is the basis for determining the bank's measured exposure to interest rate risk.

A bank performs the first two steps in its compilation and submission of the IRR Call Report schedules. Those schedules and accompanying instructions are contained in the Appendices 1 and 2 to this policy statement. The risk-weights required for

step three are contained in the tables in Appendix 3 to this policy statement.

##### C. Information Requirements of the Supervisory Model

Use of the supervisory model requires information on the maturity and repricing characteristics of a bank's assets, liabilities and off-balance-sheet positions. This information is collected by the agencies through the quarterly Call Report submissions filed by non-exempted banks and illustrated by Schedule 1.<sup>7</sup> This reporting schedule requires a bank to report its assets, liabilities and off-balance-sheet items across seven maturity ranges (time bands) based on the instrument's time remaining to maturity or next repricing date. The time bands used:

- (1) Less than or equal to 3 months;
- (2) Greater than 3 months and less than or equal to 12 months;
- (3) Greater than 1 year and less than or equal to 3 years;
- (4) Greater than 3 years and less than or equal to 5 years;
- (5) Greater than 5 years and less than or equal to 10 years;
- (6) Greater than 10 years and less than or equal to 20 years;
- (7) Greater than 20 years.

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<sup>7</sup>The agencies have not yet recommended to the Federal Financial Examination Council (FFIEC), Call Report changes for IRR. The schedules and associated reporting requirements and instructions that are discussed in this proposed policy statement and appendix are under consideration by the agencies. These items are included in this policy statement to provide commenters with a fuller understanding of the proposal and to give them opportunities to comment on items under consideration by the agencies. The agencies plan to forward to the FFIEC recommended Call Report changes for IRR. Once final recommendations are made by the agencies, the FFIEC will publish the proposed changes for public comment.

Schedule 1

BASELINE

Proposed Interest Rate Risk Schedule  
(to be completed by non-exempt institutions only)

Maturity and repricing data:  
Please break out the following items according to their remaining term to maturity or time to repricing:

	(Column A)			(Column B)			(Column C)			(Column D)			(Column E)			(Column F)			(Column G)			(Column H)									
	Total	BI	MI	Thou	Up to 3 months	BI	MI	Thou	> 3 months and <= 1 year	BI	MI	Thou	> 1 year and <= 3 years	BI	MI	Thou	> 3 years and <= 5 years	BI	MI	Thou	> 5 years and <= 10 years	BI	MI	Thou	> 10 years and <= 20 years	BI	MI	Thou	> 20 years	BI	MI
Dollar Amounts in Thousands																															
Debt Securities (exclude self reported items):																															
1. ARM securities (use Memoranda below).....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
2. Fixed rate mortgage securities.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
3. All other amortizing securities.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
4. Non-amortizing securities.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
5. Zero or low coupon securities.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
Loans and Leases:																															
6. ARM loans (use Memoranda below).....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
7. Fixed rate mortgage loans.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
8. Mgt loans held for sale w/ firm commitment	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
9. Other amortizing loans.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
10. All other loans.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
All other int-bearing assets (Bal. due, Fed Funds).																															
Liabilities:																															
11. Time deposits.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
12. All other int. bearing nondeposit liabilities.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
13. Commercial DDAs - rising rates.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
14. MMDAs - rising rates.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
15. NOWs, savings & other DDAs - rising rates.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
16. Commercial DDAs - declining rates.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
17. MMDAs - declining rates.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
18. NOWs, savings & other DDAs - decl. rates.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
Off-balance sheet positions:																															
19. Non-amortizing.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX
20. Amortizing.....	XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX			XXXX

	(Column A)			(Column B)			(Column C)			(Column D)		
	Carrying Value	Market Value	Declining Rates	Rising Rates	Market Value	Declining Rates	Rising Rates	Market Value	Declining Rates	Rising Rates	Market Value	Declining Rates
6. High risk mortgage securities.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
7. Non-high-risk CMOs.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
8. Structured notes.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
9. Mortgage servicing rights.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
10. Interest rate swaps w/ embedded options.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
11. Interest rate options.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
12. Trading account.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

Reprint Frequency

(Column A)	(Column B)	(Column C)
0 to 6 Months	6 Months to 1 Year	Greater Than 1 Year
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX

Memoranda

- ARM Securities.....
- ARM Loans.....
- ARM Securities.....
- ARM Loans.....

Net Lifetime Cap

XXXX	XXXX	XXXX
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX

In the interest of minimizing reporting burdens, no coupon or yield data are collected for the baseline supervisory model. Rather, the model applies general assumptions regarding coupon rates and other characteristics of the underlying assets, liabilities, and off-balance-sheet instruments in developing the interest rate sensitivity weights. Banks with concentrations in fixed-rate or adjustable-rate residential mortgages are required to provide additional information on those holdings. For fixed-rate mortgages, this information includes data on the underlying coupons of the mortgage assets. For adjustable-rate mortgages, the information includes data on lifetime and periodic caps. These supplemental modules for fixed- and adjustable-rate mortgages are discussed in Section E of this policy statement.

A brief description of how various types of assets, liabilities, and interest-rate related off-balance sheet instruments are reported is provided below. Instructions for completing the schedules required for the supervisory model are provided in the Call Report package issued by the FFIEC.<sup>8</sup>

a. *Reporting for assets.* The price sensitivity of a financial instrument is determined by the instrument's cash flow characteristics. Accordingly, maturity and repricing data on most assets are collected in one of five categories that reflect different types of cash flows:

(1) *Adjustable-rate 1-4 family mortgage instruments*, including adjustable-rate mortgage loans and adjustable-rate, pass-through mortgage securities. This category would not include home-equity loans; those loans would be reported with other amortizing loans based on their remaining maturity or next repricing date;

(2) *Fixed-rate 1-4 family mortgages*, including both fixed-rate mortgage loans and pass-through, fixed-rate mortgage-backed securities, again excluding home-equity loans;

(3) *Other amortizing loans and securities*, including asset-backed securities, consumer loans and other easily identifiable instruments that involve scheduled periodic amortization of principal more frequently than once a year;

(4) *Zero- or low-coupon securities*, including securities with coupons of

less than 3 percent that do not involve scheduled periodic payments of principal; and

(5) *All other loans and securities*, including loans and securities that involve only periodic payments of interest, with payment of principal at maturity.

Banks holding certain types of assets are required to self-report the current market value and estimates of the change in market value of these instruments for the specified interest rate scenarios. Banks can use either their internal estimates or estimates obtained from a reliable third-party source, provided that the bank knows, understands, and documents the assumptions and methodologies used to calculate the estimated market value sensitivities. Assumptions, pricing methodologies and all other documentation must be reasonable and available for examiner review. Self-reporting is used for the following assets:

(1) *All mortgage-backed derivative securities that meet the FFIEC's definition of "high-risk."*<sup>9</sup>

(2) *All structured notes*, as defined in the Call Report instructions;

(3) *Non-high risk mortgage derivative securities* when those holdings represent 10 percent or more of a bank's assets. Banks whose holdings are less than 10 percent of assets have the option of either self-reporting or reporting those instruments as non-amortizing securities based on bank management's estimate of the instrument's current average life.

(4) *Trading account portfolios.* A bank should report the change in the economic value of all of their trading account positions for a 100 basis point parallel increase and decrease in interest rates.<sup>10</sup>

(5) *Mortgage servicing rights* that are capitalized and reported on the bank's balance sheet.

b. *Reporting for Liabilities.* The majority of bank liabilities repay

<sup>9</sup> Effective February 10, 1992 agencies and the Office of Thrift Supervision adopted revised supervisory policies on securities activities that were developed under the auspices of the FFIEC. The revised policies established a framework for identifying "high-risk mortgage derivative products."

<sup>10</sup> The agencies expect banks to have prudential internal risk limits and effective risk measurement systems for their trading activities. For banks with significant trading operations, the adequacy and results of those systems will be closely reviewed by examiners and would be incorporated into their assessment of the bank's overall risk position. The Basle Committee on Bank Supervision is also considering methods of evaluating IRR in trading accounts and determining appropriate capital requirements. This process could lead to an international agreement which would affect the treatment of trading activities for U.S. banks.

principal only at maturity. Hence, the supervisory model applies the same set of risk-weights to all of a bank's interest-sensitive liabilities. Bank liabilities differ, however, in the certainty of their maturity. In particular, many bank liabilities have uncertain or indeterminate contractual maturities. Given these differences, liabilities with contractual maturities are reported separately from those with indeterminate contractual maturities.

The agencies have adopted uniform rules for distributing non-maturity deposits accounts across the time bands. These rules specify the longest time band that can be used for each type of deposit and the maximum percentage amount that can be reported into that time band. In its reporting of these deposits, a bank may distribute such deposits across the time bands according to the bank's own assumptions and experience, subject to the following constraints:

(1) *Commercial Demand Deposits:* A bank should report 50 percent of its commercial demand deposits in the 0-3 month time band. The remaining balances may be distributed across the first four time bands, with a maximum of 20 percent of total balances in the 3-5 year time band.

(2) *Retail DDA, Savings, and NOW Accounts:* A bank may distribute the balances in these accounts across any of the first five time bands, with a maximum of 20 percent in the 5-10 year time band and no more than 40 percent combined in the 3-5 and 5-10 year bands.

(3) *MMDA Accounts:* A bank may distribute these balances across any of the first three time bands, with a maximum of 50 percent in the 1-3 year band.

Within these deposit reporting parameters, a bank is permitted to use different distributions of these deposits for the rising and falling rate scenarios. This flexibility is designed to reflect the embedded optionality associated with these products.

c. *Reporting for Off-Balance-Sheet Positions.* Off-balance-sheet contracts that represent a firm obligation for both parties are reported within the maturity ladder framework using a two-entry approach to reflect how the contract alters the timing of cash flows. For interest rate swaps, the first entry would be reported in the time band corresponding to the next repricing date of the contract, and the second entry would be reported in the time band corresponding to the maturity of the instrument. For futures, forwards, and FRAs, the first entry would be reported in the time band corresponding to

<sup>8</sup> Draft reporting instructions for the schedules under consideration by the agencies are provided in Appendix 2 of this policy statement. As previously noted, the schedules and associated reporting requirements and instructions discussed in this proposed policy statement have not been finalized and submitted to the FFIEC.

settlement date of the contract, and the second entry would be reported in the time band corresponding to the settlement date *plus* the maturity of the instrument underlying the contract.

Contracts that are based on non-amortizing instruments are reported separately from those based on amortizing principal amounts or on underlying instruments that amortize. Examples of "non-amortizing" contracts include futures, forward-rate agreements, swaps on which the notional principal amount of the contract does not amortize, securitization of credit card receivables under a spread account approach, and firm commitments to buy or sell non-mortgage loans or securities. Examples of "amortizing" contracts are commitments to buy and sell mortgages and commitments to originate mortgage loans.

#### *Self Reporting for Options*

Option-related contracts are not distributed and reported within the time bands of the maturity ladder schedule. A bank that holds such contracts is required to "self-report" the market value sensitivities of those positions.<sup>11</sup>

<sup>11</sup> This differs from earlier proposals where the agencies proposed that options-related contracts be

#### D. IRR Risk Weights

Under the supervisory model, a bank's IRR exposure is calculated by multiplying its reported repricing and maturity positions by IRR risk weights. These risk weighted positions, when summed and added to the sensitivities of any self-reported items, form the bank's net risk-weighted position.

Each risk weight is constructed to approximate the percentage change in value of the reported position that would result from a 200 basis point, instantaneous and uniform movement in market interest rates. Separate risk weights are used for the rising and falling interest rate scenarios to account for the asymmetrical price behavior of various bank assets, liabilities and off-balance-sheet instruments.

The set of risk weights used in the baseline supervisory model for each scenario consists of:

(1) Four "ARM" risk weights for adjustable-rate residential mortgage loans and securities. There is one risk

reported on the basis of their delta-equivalent values. The agencies have made this change in the treatment of option-related contracts due to their concerns that delta-equivalent values may be difficult to compute for longer-dated caps and floors, and the limitations of using delta as a proxy for market value sensitivities when evaluating effect of large rate movements.

weight for each of the three reset frequency categories, plus one risk-weight for those ARMs that are within 200 basis points of their lifetime cap;

(2) Seven "Fixed-Rate Residential Mortgage" risk weights (i.e., one for each time band) for fixed-rate residential mortgage loans and pass-through mortgage securities;

(3) Seven "Other Amortizing" risk weights for asset-backed securities, consumer loans and amortizing off-balance-sheet instruments;

(4) Seven "Zero or Low Coupon" asset risk weights for instruments with a coupon of 3 percent or less;

(5) Seven "All Other" asset risk weights for non-amortizing instruments; and,

(6) Seven liability risk weights for all liability instruments.

The risk weights used in the baseline supervisory model are provided in Table 1 and also in Appendix 3 of the policy statement. The agencies propose to limit the frequency of revisions to the risk-weights such that revisions would not be made until such time as market rates have moved sufficiently as to prompt a revision of all the risk weights. Such changes may occur only once every several years.

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Table 1

Derivation of Risk Weights (excluding 1-4 yr. family mortgages)

				Scenario 1			Scenario 2		
Amortizing Instruments				200 basis point rise			200 basis point decline		
Time Band	Maturity*	Coupon	Price (% OF PAR)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)
0-3 Months	1.5 Mo.	7.5	100.00%	99.75%	-0.25%	100.25%	0.25%	100.25%	0.25%
3-12 Months	7.5 Mo.	7.5	100.00%	99.25%	-0.75%	100.75%	0.75%	100.75%	0.75%
1-3 Years	2 Years	7.5	100.00%	98.00%	-2.00%	102.00%	2.00%	102.00%	2.00%
3-5 Years	4 Years	7.5	100.00%	96.30%	-3.70%	103.90%	3.90%	103.90%	3.90%
5-10 Years	7.5 Years	7.5	100.00%	93.50%	-6.50%	107.20%	7.20%	107.20%	7.20%
10-20 Years	15 Years	7.5	100.00%	88.90%	-11.10%	113.30%	13.30%	113.30%	13.30%
Over 20 Years	25 Years	7.5	100.00%	84.90%	-15.10%	120.00%	20.00%	120.00%	20.00%
<b>All Other Instruments</b>									
0-3 Months	1.5 Mo.	7.5	100.00% **	99.75%	-0.25%	100.25%	0.25%	100.25%	0.25%
3-12 Months	7.5 Mo.	7.5	100.00% **	98.80%	-1.20%	101.30%	1.30%	101.30%	1.30%
1-3 Years	2 Years	7.5	100.00%	96.40%	-3.60%	103.80%	3.80%	103.80%	3.80%
3-5 Years	4 Years	7.5	100.00%	93.40%	-6.60%	107.10%	7.10%	107.10%	7.10%
5-10 Years	7.5 Years	7.5	100.00%	89.40%	-10.60%	112.20%	12.20%	112.20%	12.20%
10-20 Years	15 Years	7.5	100.00%	84.10%	-15.90%	120.30%	20.30%	120.30%	20.30%
Over 20 Years	25 Years	7.5	100.00%	81.00%	-19.00%	127.00%	27.00%	127.00%	27.00%
<b>Liabilities</b>									
0-3 Months	1.5 Mo.	3.75	100.00% **	99.75%	0.25%	100.25%	-0.25%	100.25%	-0.25%
3-12 Months	7.5 Mo.	3.75	100.00% **	98.80%	1.20%	101.20%	-1.20%	101.20%	-1.20%
1-3 Years	2 Years	3.75	100.00%	96.30%	3.70%	103.90%	-3.90%	103.90%	-3.90%
3-5 Years	4 Years	3.75	100.00%	93.00%	7.00%	107.60%	-7.60%	107.60%	-7.60%
5-10 Years	7.5 Years	3.75	100.00%	88.00%	12.00%	114.00%	-14.00%	114.00%	-14.00%
10-20 Years	15 Years	3.75	100.00%	80.10%	19.90%	126.20%	-26.20%	126.20%	-26.20%
Over 20 Years	25 Years	3.75	100.00%	73.70%	26.30%	140.30%	-40.30%	140.30%	-40.30%
<b>Zero or Low Coupon Securities</b>									
0-3 Months	1.5 Mo.	0	99.08%	98.83%	-0.25%	99.32%	0.25%	99.32%	0.25%
3-12 Months	7.5 Mo.	0	95.51%	94.37%	-1.20%	96.67%	1.30%	96.67%	1.30%
1-3 Years	2 Years	0	86.31%	83.06%	-3.80%	89.72%	4.00%	89.72%	4.00%
3-5 Years	4 Years	0	74.49%	68.99%	-7.40%	80.49%	8.10%	80.49%	8.10%
5-10 Years	7.5 Years	0	57.57%	49.85%	-13.40%	66.57%	15.70%	66.57%	15.70%
10-20 Years	15 Years	0	33.14%	24.85%	-25.00%	44.31%	33.80%	44.31%	33.80%
Over 20 Years	25 Years	0	15.87%	9.82%	-38.10%	25.76%	62.30%	25.76%	62.30%

\* No prepayments are assumed for these hypothetical instruments  
 \*\*\* Actual initial price is slightly less than par



Table 1 (con't)

Derivation of Risk Weights for 1-4 yr. family mortgages

				Scenario 1			Scenario 2		
				200 basis point rise			200 basis point decline		
Time Band	Maturity*	Coupon	Price (% OF PAR)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)
0-3 Months	1.5 Mo.	7.50%	100.00%	99.77%	-0.20%	100.23%	0.20%	100.71%	0.70%
3-12 Months	7.5 Mo.	7.50%	100.00%	98.30%	-0.70%	101.98%	2.00%	101.98%	2.00%
1-3 Years	2 Years	7.50%	100.00%	98.08%	-2.00%	103.17%	4.50%	103.17%	4.50%
3-5 Years	4 Years	7.50%	98.76%	93.10%	-5.70%	103.25%	5.80%	103.25%	5.80%
5-10 Years	7.5 Years	7.50%	97.57%	90.19%	-7.60%	102.74%	7.50%	102.74%	7.50%
10-20 Years	15 Years	7.50%	95.55%	87.40%	-8.50%	101.87%	10.60%	101.87%	10.60%
Over 20 Years	25 Years	7.50%	92.07%	81.46%	-11.50%				

Fixed-Rate Mortgages

Adjustable-Rate Mortgages

				Scenario 1			Scenario 2		
				200 basis point rise			200 basis point decline		
Reset Frequency	Maturity*	Coupon	Price (% OF PAR)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)
0 to 6 Months	6 mo CMT	7.50%	101.31%	97.03%	-4.20%	102.93%	1.60%	104.04%	1.90%
6 Months to 1 Year	12 mo CMT	7.50%	102.12%	97.60%	-4.40%	104.62%	5.10%	104.62%	5.10%
Greater than 1 Year	3 yr CMT	7.50%	99.58%	92.99%	-6.60%	103.42%	4.40%	103.42%	4.40%
Near Lifetime Cap	12 mo CMT	7.50%	99.10%	92.13%	-7.00%				

\* No prepayments are assumed for these hypothetical instruments

- (a) 6 mos CMT, 100 bp periodic cap, 275 bp margin, 500 bp from lifetime cap
- (b) 12 mo. CMT, 200 bp periodic cap, 275 bp margin, 500 bp from lifetime cap
- (c) 3 yr. CMT, 200 bp periodic cap, 275 bp margin, 500 bp from lifetime cap
- (d) 12 mo. CMT, no periodic cap, 275 bp margin, 200 bp from lifetime cap

The agencies constructed the risk weights shown in Table 1 by using hypothetical market instruments that are representative of the category being measured. The risk weights are based on the percentage change in the present value of the benchmark instruments for the specified interest rate scenario. Risk weights for adjustable- and fixed-rate residential mortgage loans and securities were derived from data provided by the *OTS (Office of Thrift Supervision) Net Portfolio Value Model* as of September 30, 1994 for use in the *OTS Asset and Liability Pricing Tables* published by the OTS. The mortgage risk weights directly incorporate convexity for the rate scenario and prepayment assumptions for mortgage loans and securities.<sup>12</sup> A complete description of the instruments and methodologies used by the agencies to

<sup>12</sup> Convexity refers to the non-linear price/yield relationship of fixed-rate financial instruments. Instruments without option features, such as Treasury notes, have positive convexity, meaning that as the price of the instrument falls, its yield will increase by a proportionately greater amount. Other instruments, such as certain mortgage-backed securities, have negative convexity.

construct the risk weights for each category is contained in Appendix 4 of this policy statement.

#### E. Description of Supplemental Modules

Residential mortgage products have option features that make the value of the instrument more sensitive to interest rate changes than many other types of financial instruments. To more accurately measure the sensitivity of these products, a bank that has holdings of these instruments in excess of specified levels is required to provide additional information on those holdings in its Call Report submissions. The agencies will apply expanded tables of risk weights to those portfolios when estimating the bank's IRR exposure. Both one-to-four family residential mortgage loans and pass-through securities are considered mortgage holdings for these supplemental modules. Mortgage loans that a bank has funded but holds for sale do not need to be reported in the supplemental modules or included in the calculation of a bank's holdings of mortgage products provided that the bank has a firm and binding commitment from a

third party to purchase the loan. Loans with such binding commitments are reported separately in Schedule 1 and receive a risk-weight commensurate with short-term (three months or less) non-amortizing instruments. A bank, however, may elect to report these loans in the supplemental reporting schedules.

1. Fixed-Rate Residential Mortgages: A bank with fixed-rate residential mortgage holdings that exceeds 20% of its total assets will report as part of its quarterly Call Report submissions, additional information on those holdings based upon their time remaining to maturity and coupon rate (Schedule 2). The term "coupon rate" for fixed-rate mortgage loans refers to the loan's stated coupon rate, while for pass-through securities, it refers to the weighted average coupon (WAC) of the underlying mortgages. For each maturity and coupon range, the agencies have developed and will apply risk weights which reflect the differences in expected price sensitivities that are associated with each coupon range.

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**SCHEDULE 2  
FIXED-RATE MORTGAGES**

**To be completed by banks with fixed-rate mortgage holdings greater than 20% of total assets**

1. Test for determining whether Schedule 2 should be completed.

Indicate in the appropriate box at the right whether the bank has "total adjusted fixed-rate mortgage holdings" greater than 20 percent of total assets as of the report date.....

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Balances with Coupons of:	Remaining Time to Maturity			
	(Column A) 5 Years or Less	(Column B) Over 5 Years Through 10 Years	(Column C) Over 10 Years Through 20 Years	(Column D) Over 20 Years
2. <6.75%				
3. 6.76% - ≤7.25%				
4. 7.26% - ≤7.75%				
5. 7.76% - ≤8.25%				
6. 8.26% - ≤8.75%				
7. 8.76% - ≤9.25%				
8. 9.26% - ≤9.75%				
9. > 9.75%				

2. Adjustable-Rate Residential Mortgages: Adjustable-rate mortgage loans and securities have price sensitivities that are substantially different than fixed-rate mortgage assets primarily due to their coupon reset features. The coupon adjustments are generally limited by caps and floors both for the life of the mortgage and also at their rest period. These caps are known as lifetime and period caps. In general, there are three factors that most influence the price sensitivity of an ARM: the reset frequency, the periodic cap, and the lifetime cap. The relationship between the periodic and lifetime caps and the effect of that relationship on ARM prices is complex and varies based upon the likelihood that either cap will become binding.

Consequently, information on both the periodic cap and the lifetime cap will be collected from banks with significant ARM holdings.

A bank with ARM holdings greater than 10% but less than 25% of its total assets will through its Call Report submissions, provide additional information on those holdings (Schedule 3). The bank will report its ARM balances by the ARM's reset frequency, the nature of its periodic cap, and the distance to its lifetime cap. ARM balances will be reported for the three reset frequencies (6 months or less, over 6 months but less than or equal to 1 year, and over 1 year). The three reset frequencies are divided by whether or not the ARM carries a periodic cap, and in the over 6 months

to 1 year column, by the size of the periodic cap. The distance to the lifetime cap is stratified into four groups:

- (1) ARMs that are within 200 basis points of their lifetime caps;
- (2) ARMs that are 201 to 400 basis points from their lifetime caps;
- (3) ARMs that are 401 to 600 basis points from their lifetime caps;
- (4) ARMs that are more than 600 basis points from their lifetime caps.

A bank whose ARM holdings exceed 25% of its total assets will provide further information on its ARM balances, including information on the ARM's index type and weighted average coupon, as illustrated by Schedule 4.

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### SCHEDULE 3 ADJUSTABLE-RATE MORTGAGES

To be completed by banks with ARM holdings greater than or equal to 10% but less than 25% of total assets

1. Test for determining whether Schedule 3 should be completed.

Indicate in the appropriate box at the right whether the bank has "total adjusted adjustable-rate mortgage holdings" greater than or equal to 10 percent but less than 25 percent of total assets as of the report date.....

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Reset Frequency						
	6 Months or Less		Over 6 Months through 1 Year			Over 1 Year	
	(Column A) No periodic cap	(Column B) Periodic cap	(Column C) No periodic cap	(Column D) Periodic cap 150bp or less	(Column E) Periodic cap more than 150bp	(Column F) No periodic cap	(Column G) Periodic Cap
<b>Instruments 200 basis points or less from the lifetime cap</b>							
2. Balance							
<b>Instruments 201 to 400 basis points from the lifetime cap</b>							
3. Balance							
<b>Instruments 401 to 600 basis points from the lifetime cap</b>							
4. Balance							
<b>Instruments more than 600 basis points from the lifetime cap and/or with no lifetime cap</b>							
5. Balance							

### SCHEDULE 4 ADJUSTABLE-RATE MORTGAGES

To be completed by banks with ARM holdings greater than or equal to 25% of assets

1. Test for determining whether Schedule 4 should be completed.

Indicate in the appropriate box at the right whether the bank has "total adjusted adjustable-rate mortgage holdings" greater than or equal to 25 percent of total assets as of the report date.....

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

	Current Market Index By Reset Frequency						Lagging Market Index by Reset Frequency		
	6 Months or Less		Over 6 Months to 1 Year			Over 1 Year		(Col. H) 1 Month or Less	(Col. I) Over 1 Month
	(Col. A) No periodic cap	(Col. B) Periodic Cap	(Col. C) No periodic cap	(Col. D) Periodic Cap of 150 bp or less	(Col. E) Periodic Cap more than 150bp	(Col. F) No periodic cap	(Col. G) Periodic cap		
<b>Instruments 200 basis points or less from the lifetime cap</b>									
2. Balance									
3. WAC									
<b>Instruments 201 to 400 basis points from the lifetime cap</b>									
4. Balance									
5. WAC									
<b>Instruments 401 to 600 basis points from the lifetime cap</b>									
6. Balance									
7. WAC									
<b>Instruments more than 600 basis points from the lifetime cap and/or with no lifetime cap</b>									
8. Balance									
9. WAC									

### V. Calculation of IRR Exposure

A bank's IRR exposure is calculated for both the rising and declining interest rate scenarios. The exposures derived for each scenario may differ in magnitude due to asymmetries in the price sensitivity of financial instruments as interest rates change (e.g., convexity). For each scenario, the first step in computing a bank's IRR exposure is to multiply each reported repricing or maturity position (as reported in Schedules 1, 2, 3 or 4) by the appropriate risk weight. This product, referred to as the "risk weighted position," represents the estimated dollar change in the present value of that position for the 200 basis point rate scenario. The next step is to sum all of the risk weighted positions and add to these positions the sensitivities of any self-reported items. This result, referred to as the "net risk weighted position," represents the estimated change in the economic value of the bank and is the bank's IRR exposure for the that rate scenario.

Appendix 1 provides example worksheets and IRR calculations for hypothetical banks subject to the baseline and supplemental modules.

### VI. Use of a Bank's Internal IRR Model Results

The supervisory model set forth in this policy statement is one tool that examiners will use to assess a bank's level of IRR exposure and its need for capital. Examiners also will consider the IRR exposures that are indicated by the bank's internal IRR model. The agencies recognize that many banks have sophisticated internal models for measuring IRR that take account of complexities that are not captured by the supervisory model and that are tailored to the products, activities, and circumstances of each bank. In cases where the bank's internal model provides a more accurate assessment of the bank's IRR exposure, the results of that model will be the primary basis for an examiner's conclusion about the bank's level of IRR exposure.

Factors that examiners will consider in determining whether a bank's internal model provides a more accurate assessment of the bank's IRR profile than the supervisory model include:

(1) Whether the bank's internal model is appropriate to the nature, scope, and complexities of the bank and its activities;

(2) Whether the model includes all material IRR positions of the bank;

(3) Whether the model provides a more precise measurement of the changes in the economic value to the bank than the supervisory model;

(4) Whether the model considers all relevant repricing data, including information on contractual maturities and repricing dates, contractual interest rate floors and/or ceilings;

(5) Whether the model measures the bank's IRR exposure over a probable range of potential interest rate changes, including but not limited to, the rate scenarios established in this policy statement;

(6) Whether the assumptions and structure of the model are reasonable, documented and periodically reviewed and validated by an appropriate level of senior management that has sufficient independence from units that take or create IRR exposures;

(7) Whether the results of the model are communicated to and reviewed by senior management and the institution's Board of Directors on at least a quarterly basis.

### VII. Use of Measurement Process Results

The results of the measurement process established by this policy statement will be one factor that an examiner will use when evaluating a bank's capital adequacy with regards to IRR. In reviewing a bank's capital adequacy, an examiner will consider the exposure of the bank's capital and economic value to changes in interest rates, as measured by the supervisory model and, where applicable, the bank's internal model. Other factors that an examiner will consider include the quality of a bank's IRR management, internal controls, and the overall financial condition of the bank, including its earnings capacity, capital base, and the level of other risks which may impair future earnings or capital. When assessing the adequacy of the bank's IRR management process, an examiner will consider:

(1) The adequacy and effectiveness of senior management and Board oversight;

(2) The adequacy of and compliance with the bank's policies, procedures and internal controls;

(3) The existence of and adherence to specific risk limits relating to loss of capital;

(4) Management's knowledge and ability to identify and manage sources of IRR effectively; and

(5) The adequacy of internal risk measurement and monitoring systems.

At the completion of each safety and soundness examination, examiners will form and document conclusions as to the adequacy of a bank's capital and risk management process with regard to interest rate risk. An examiner's conclusions about both the level of risk and the adequacy of the risk

management process will play an integral role in determining a bank's need for capital for IRR. Banks with high levels of measured exposure or weak management systems generally will need to hold capital for IRR. The specific amount of capital that may be needed will be determined on a case-by-case basis by the examiner and the appropriate supervisory agency. This determination and the examiner's overall conclusions regarding IRR will be discussed with bank management at the close of each examination.

During the intervals between examinations, the agencies will use the supervisory model to help monitor changes in a bank's IRR exposure. Significant changes in reported exposures or in a bank's overall financial condition will be analyzed by the bank's primary supervisor to determine whether additional supervisory actions are warranted. Such actions may include additional discussions with bank management, requests for additional information, on-site reviews of the bank, and reevaluation of the bank's capital adequacy.

### Appendix 1—Proposed Call Report Schedules and Supervisory Model Worksheets

This appendix contains sample call report schedules and worksheets that would be used for the proposed supervisory model. As noted in the proposed policy statement, the schedules shown in this appendix are under consideration by the agencies but have not yet been submitted to the FFIEC for approval. These schedules and worksheets are included in this document to provide readers and commenters a better understanding of the proposed supervisory risk measurement system.

#### I. Sample Call Report Schedules

Schedule 1 illustrates the information that would be collected from all banks that do not meet the reporting exemption criteria. This information would be used for the baseline supervisory model. Schedules 2–4 illustrate the information that would be collected from non-exempt banks that have concentrations in fixed- or adjustable-rate residential mortgage loans or pass-through securities. This information would be used in lieu of the items for these portfolios on Schedule 1. The balances reported in the supplemental schedules would be subjected to the expanded set of risk weights shown in Appendix 3. Draft reporting instructions for Schedules 1–4 are provided in Appendix 2.

Schedule 5 illustrates the information on a bank's internal IRR model results that the agencies propose to collect on a voluntary and confidential basis. A bank that has an internal IRR model that measures the bank's economic exposure for a 200 basis point parallel rate shock would provide summary information on the estimated change in value for various asset, liability, and off-balance-sheet categories.

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Schedule 1

BASELINE

Proposed Interest Rate Risk Schedule  
(to be completed by non-exempt institutions only)

Identify and reprice debt:  
Please check out the following items  
according to their remaining term to  
maturity time to repricing:

	(Column A)			(Column B)			(Column C)			(Column D)			(Column E)			(Column F)			(Column G)			(Column H)				
	Total			Up to 3 months			> 3 months and <= 1 year			> 1 year and <= 3 years			> 3 years and <= 5 years			> 5 years and <= 10 years			> 10 years and <= 20 years			> 20 years				
	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then		
Dollar Amounts in Thousands																										
Debt Securities (exclude self reported items):																										
1. ARM securities (see Memoranda below):																										
a. ARM securities (see Memoranda below):	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
b. Fixed rate mortgage securities:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
c. All other amortizing securities:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
d. Non-amortizing securities:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
e. Zero or low coupon securities:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
2. Loans and Leases:																										
a. ARM loans (see Memoranda below):	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
b. Fixed rate mortgage loans:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
c. Mtg. loans held for sale w/ firm commitments:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
d. Other amortizing loans:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
e. All other loans:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
3. All other int-bearing assets (Bal. des. Fed Funds):	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
4. Liabilities:																										
a. Time deposits:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
b. All other int. bearing nondeposit liabilities:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
c. Commercial DDAs - rising rates:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
d. MMDAs - rising rates:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
e. NOWs, savings & other DDAs - rising rates:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
f. Commercial DDAs - declining rates:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
g. MMDAs - declining rates:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
h. NOWs, savings & other DDAs - decl. rates:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
5. Off-balance sheet positions:																										
a. Non-amortizing:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
b. Amortizing:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX

Self Reported Items:	(Column A)			(Column B)			(Column C)			(Column D)			(Column E)			(Column F)			(Column G)							
	Carrying Value			Market Value			Rising Rates			Declining Rates			0 to 6 Months			6 Months to 1 Year			Greater Than 1 Year							
	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then	BI	MI	Then					
6. High risk mortgage securities:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
7. Non-high-risk CMOs:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
8. Structured notes:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
9. Mortgage servicing rights:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
10. Interest rate swaps w/ embedded options:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
11. Interest rate options:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX
12. Trading account:	BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX		BCFD	XXXX

Memoranda

- 1. ARM Securities
- 2. ARM Loans
- 3. ARM Securities - Near Lifetime Cap
- 4. ARM Loans - Near Lifetime Cap

**SCHEDULE 2  
FIXED-RATE MORTGAGES**

**To be completed by banks with fixed-rate mortgage holdings greater than 20% of total assets**

1. Test for determining whether Schedule 2 should be completed.

Indicate in the appropriate box at the right whether the bank has "total adjusted fixed-rate mortgage holdings" greater than 20 percent of total assets as of the report date.....

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Balances with Coupons of:	Remaining Time to Maturity			
	(Column A) 5 Years or Less	(Column B) Over 5 Years Through 10 Years	(Column C) Over 10 Years Through 20 Years	(Column D) Over 20 Years
2. <6.75%				
3. 6.76% - ≤7.25%				
4. 7.26% - ≤7.75%				
5. 7.76% - ≤8.25%				
6. 8.26% - ≤8.75%				
7. 8.76% - ≤9.25%				
8. 9.26% - ≤9.75%				
9. > 9.75%				

### SCHEDULE 3 ADJUSTABLE-RATE MORTGAGES

To be completed by banks with ARM holdings greater than or equal to 10% but less than 25% of total assets

1. Test for determining whether Schedule 3 should be completed.

Indicate in the appropriate box at the right whether the bank has "total adjusted adjustable-rate mortgage holdings" greater than or equal to 10 percent but less than 25 percent of total assets as of the report date.....

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Reset Frequency						
	6 Months or Less		Over 6 Months through 1 Year			Over 1 Year	
	(Column A) No periodic cap	(Column B) Periodic cap	(Column C) No periodic cap	(Column D) Periodic cap 150bp or less	(Column E) Periodic cap more than 150bp	(Column F) No periodic cap	(Column G) Periodic Cap
<b>Instruments 200 basis points or less from the lifetime cap</b>							
2. Balance							
<b>Instruments 201 to 400 basis points from the lifetime cap</b>							
3. Balance							
<b>Instruments 401 to 600 basis points from the lifetime cap</b>							
4. Balance							
<b>Instruments more than 600 basis points from the lifetime cap and/or with no lifetime cap</b>							
5. Balance							



## Schedule 5 Results of Internal IRR Measurement System

To be filed by institutions that use an internal interest rate risk measurement system.

	Rising Rates			Declining Rates		
	Bil	Mil	Thou	Bil	Mil	Thou
Dollar Amounts in Thousands						
<b>Interest Rate Risk Sensitivity Analysis - Estimated Change in Economic Value</b>						
<b>1. Debt securities:</b>						
a. ARM securities.....	RCFD XXXX			RCFD XXXX		
b. Fixed rate mortgage securities.....	RCFD XXXX			RCFD XXXX		
c. All other amortizing securities.....	RCFD XXXX			RCFD XXXX		
d. Non-amortizing securities.....	RCFD XXXX			RCFD XXXX		
e. Zero or low coupon securities.....	RCFD XXXX			RCFD XXXX		
<b>2. Loan and Leases</b>						
a. ARM loans.....	RCFD XXXX			RCFD XXXX		
b. Fixed rate mortgage loans.....	RCFD XXXX			RCFD XXXX		
c. Other amortizing loans.....	RCFD XXXX			RCFD XXXX		
d. All other loans.....	RCFD XXXX			RCFD XXXX		
<b>3. Mortgage servicing rights.....</b>						
RCFD XXXX				RCFD XXXX		
<b>4. Trading account (on and off-balance sheet).....</b>						
RCFD XXXX				RCFD XXXX		
<b>5. All other interest-bearing assets (Bal. due, Fed funds).....</b>						
RCFD XXXX				RCFD XXXX		
<b>6. Total Liabilities:</b>						
a. Non-maturity deposits (MMDAs, DDAs, NOWs, savings).....	RCFD XXXX			RCFD XXXX		
b. Time deposits.....	RCFD XXXX			RCFD XXXX		
c. All other interest-bearing non-deposit liabilities.....	RCFD XXXX			RCFD XXXX		
<b>7. Off-balance sheet contracts (nontrading account)</b>						
a. Non-amortizing and amortizing.....	RCFD XXXX			RCFD XXXX		
b. Interest rate options.....	RCFD XXXX			RCFD XXXX		
<b>8. Total Assets - Total Liabilities +/- off-balance sheet.....</b>						
RCFD XXXX				RCFD XXXX		

## II. Baseline Supervisory Model Worksheet

To illustrate how a bank's IRR exposure would be calculated under the baseline supervisory model, the following worksheets are provided for a hypothetical bank (Bank A) that is not exempted from reporting (see policy statement) and has filed the proposed Schedule 1. Since Bank A's fixed-rate residential mortgage loan and security holdings are less than 20% of its total assets and its adjustable-rate holdings are less than 10% of total assets, it is not subject to any the supplemental reporting schedules. Schedule 1A shows the completed Schedule 1 for Bank A. Tables 1A and 2A are the baseline model worksheets for the rising and falling rate scenarios, respectively for Bank A.

Column A in Tables 1A and 2A combine and transcribe the balance information that Bank A reported. For example, Bank A reported \$4.126 million of fixed-rate mortgage securities and \$5.432 million of fixed-rate mortgage loans that had maturities of 10- to 20-years. These balances have been combined and reported in Item 1(f) in Tables 1A and 2A.

Column B in Tables 1A and 2A shows the supervisory model risk weights for each instrument type and maturity

category. The risk weights represent the estimated percentage change in the value of the reported balances for a 200 basis point rise (Table 1A) and decline (Table 2A) in interest rates. For example, the value of a 3- to 5-year non-amortizing loan or security, as shown in Item 6(d) is estimated to decline by 6.60% if interest rates increase by 200 basis points and increase in value by 7.10% if rates decline by 200 basis points. The risk weights shown in Column B are established by the agencies and published in Appendix 3 to this policy statement. Because liabilities represent future obligations of the bank, the risk-weights used for liabilities are shown as positive numbers for the rising rate scenario (representing a benefit to the bank) and negative numbers for the declining rate scenario.

Column C in Tables 1A and 2A represents the estimated dollar change in the present value of each reported balance. These values are obtained by multiplying the reported balance in Column A by the corresponding risk weight in Column B. For example, Bank A has \$3.458 million in ARMs that are near their lifetime caps (line 2(d) in Tables 1A and 2A). The agencies have estimated that the value of such ARMs will decline by approximately 7.00% if

rates increase by 200 basis points. Thus, the estimated decline in value for Bank A's reported ARM balances near lifetime caps is approximately \$242 thousand (\$3.458 million times - 7.00%). Note that for self-reported items, no multiplication is needed. Rather, the estimated dollar change in value reported by the bank in Schedule 1A is incorporated directly into the exposure estimate.

Bank A's net IRR exposure is calculated by summing the individual risk-weighted positions and self-reported change amounts shown in Column C. The sum of the risk-weighted asset positions plus self-reported items for Bank A indicates a decline in value for these portfolios of approximately \$17.560 million under the rising rate scenario. This decline is partially offset by \$11.093 million and \$0.266 million increases in value for liabilities and other off-balance sheet items, respectively. Bank A's net risk-weighted position is the sum of these items and indicates that the economic value of Bank A is expected to decline by \$6.201 million under the rising rate scenario. Conversely, under the declining rate scenario, the economic value of Bank A is expected to increase by \$10.103 million.

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**Schedule 1A  
Bank A**

**Proposed Interest Rate Risk Schedule**  
(to be completed by non-exempt institutions only)

Maturity and repricing data:

Please break out the following items according to their remaining term to maturity or time to repricing:

Dollar Amounts in Thousands

1. Debt Securities (exclude self reported items):

- a. ARM securities (see Memoranda below)
- b. Fixed rate mortgage securities
- c. All other amortizing securities
- d. Non-amortizing securities
- e. Zero or low coupon securities

2. Loan and Leases:

- a. ARM loans (see Memoranda below)
- b. Fixed rate mortgage loans
- c. Fixed & adjustable rate mortgage loans with firm commitments to sell
- d. Other amortizing loans
- e. All other loans

3. All other int-bearing assets (Bal. due, Fed Funds)

4. Liabilities:

- a. Time deposits
- b. All other interest-bearing non-deposit liabilities
- c. Commercial DDAs - rising rates
- d. MMDAs - rising rates
- e. NOWs, savings, & other DDAs - rising rates
- f. Commercial DDAs - declining rates
- g. MMDAs - declining rates
- h. NOWs, savings, & other DDAs - declining rates

5. Off-Balance Sheet Swaps, Futures, FRAs, Commitments, etc.

- a. Nonamortizing (excluding trading account)
- b. Amortizing (excluding trading account)

Self Reported Items:

- 6. High Risk Mortgage Securities
- 7. Non-High-Risk CMOs
- 8. Structured Notes
- 9. Mortgage Servicing Rights
- 10. Interest Rate Swaps with Embedded Options
- 11. Interest-Rate Options
- 12. Trading Account

(Column A) Total	(Column B) Up to 3 months		(Column C) ≤ 1 year		(Column D) ≤ 3 years		(Column E) ≤ 5 years		(Column F) ≤ 10 years		(Column G) ≤ 20 years		(Column H) > 20 years		
	Bl	MI	Thou.	Bl	MI	Thou.	Bl	MI	Thou.	Bl	MI	Thou.	Bl	MI	Thou.
10,943			0			564			1,118			2,234			4,126
18,699			654		1,661	3,522			4,429			4,533			5,541
15,173			15,626		12,440	5,176			7,813			12,141			19,675
74,234			3,264		3,106	2,986			0			0			0
9,356															
15,842															
35,849															
1,652															
16,710															
102,201			46,231		19,418	15,770			10,442			10,340			0
4,433			3,100		1,333	0			0			0			0
72,121			36,906		32,559	1,323			1,933			0			0
18,839			2,237		8,387	8,215			0			0			0
26,209			13,136		0	7,844			5,229			0			0
28,312			0		14,156	14,156			0			0			0
143,393			0		0	85,915			28,839			28,639			0
26,209			18,928		7,281	0			0			0			0
28,312			3,386		16,736	8,170			0			0			0
143,393			2,200		60,141	61,273			10,145			9,634			0
0			3,200		400	-3,100			-500			0			0
0			900		0	0			0			0			-500

(Column A) Carrying Value	(Column B) Market Value	(Column C) Rising Rates	(Column D) Declining Rates	Reset Frequency			
				0 to 6 Months	6 Months to 1 Year	Greater Than 1 Year	New Lifetime Cap
5,234	5,403	4,930	5,885				
1,199	1,864	1,743	1,996	3,275	2,733	3,754	
2,349	2,694	2,464	2,943	5,963	6,471	1,131	
1,462	1,835	1,988	1,673				
	1,230	-520	385				
	1,520	2,320	855				
3,943	4,763	4,520	5,124				

Memoranda:

- 1. ARM Securities
- 2. ARM Loans
- 3. ARM Securities
- 4. ARM Loans

Interest Rate Risk Worksheet (200 Basis Point Rising Rate Scenario)

Table 1A  
Bank A

Reporting Institution: Sample Bank A (Baseline Schedule Only)

\$ THOUSANDS

I. INTEREST-SENSITIVE ASSETS

1. FRM's

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

2. ARM's

- (a) 0 to 6 months
- (b) 6 months to 1 year
- (c) Greater than 1 year
- (d) Near Lifetime Cap

3. FRM's and ARM's with Binding Commitments

4. Other Amortizing Loans & Securities

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

5. Zero or low coupon securities

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

6. All other securities and loans

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

7. Self Reporting Items

- (a) High risk mortgage securities
- (b) Non-high risk CMO's
- (c) Structured notes
- (d) Mortgage servicing rights
- (e) Swaps with embedded options
- (f) Options, caps, floors, etc.
- (g) Trading account

8. Total Interest-Sensitive Assets

II. ALL OTHER ASSETS

III. TOTAL ASSETS

IV. INTEREST-SENSITIVE LIABILITIES

1. Non-maturity deposits, time deposits and "all other"

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

2. Total Interest-Sensitive Liabilities

V. NONINTEREST-SENSITIVE LIABILITIES

VI. TOTAL LIABILITIES

VII. EQUITY CAPITAL

VIII. OFF-BALANCE SHEET POSITIONS

1. Interest rate futures, forwards, and swaps

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

2. Mortgage and other amortizing contracts

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

3. Total Off-Balance-Sheet Positions

Net Risk Weighted Positions  
Net Position/ Assets

	(A) TOTAL	(B) Risk Weights	(C) Risk Weighted Position	(D) Total Risk Weighted Position
<b>I. INTEREST-SENSITIVE ASSETS</b>				
<b>1. FRM's</b>				
(a) Up to 3 months	\$0	-0.20%	\$0	
(b) 3 to 12 months	\$664	-0.70%	(\$4)	
(c) 1 to 3 years	\$2,068	-2.00%	(\$41)	
(d) 3 to 5 years	\$2,430	-5.70%	(\$136)	
(e) 5 to 10 years	\$6,466	-7.60%	(\$492)	
(f) 10 to 20 years	\$9,556	-8.50%	(\$812)	
(g) Greater than 20 years	\$35,480	-11.50%	(\$4,048)	
<b>2. ARM's</b>				
(a) 0 to 6 months	\$9,238	-4.20%	(\$388)	
(b) 6 months to 1 year	\$9,204	-4.40%	(\$405)	
(c) Greater than 1 year	\$4,885	-6.60%	(\$322)	
(d) Near Lifetime Cap	\$3,458	-7.00%	(\$242)	
<b>3. FRM's and ARM's with Binding Commitments</b>	\$1,652	-0.25%	(\$4)	
<b>4. Other Amortizing Loans &amp; Securities</b>				
(a) Up to 3 months	\$988	-0.20%	(\$2)	
(b) 3 to 12 months	\$2,782	-0.70%	(\$19)	
(c) 1 to 3 years	\$5,208	-2.00%	(\$104)	
(d) 3 to 5 years	\$6,422	-3.70%	(\$236)	
(e) 5 to 10 years	\$7,187	-6.50%	(\$467)	
(f) 10 to 20 years	\$4,315	-11.10%	(\$478)	
(g) Greater than 20 years	\$4,963	-15.10%	(\$752)	
<b>5. Zero or low coupon securities</b>				
(a) Up to 3 months	\$3,264	-0.25%	(\$8)	
(b) 3 to 12 months	\$3,106	-1.20%	(\$37)	
(c) 1 to 3 years	\$2,966	-3.60%	(\$113)	
(d) 3 to 5 years	\$0	-7.40%	\$0	
(e) 5 to 10 years	\$0	-13.40%	\$0	
(f) 10 to 20 years	\$0	-25.00%	\$0	
(g) Greater than 20 years	\$0	-36.10%	\$0	
<b>6. All other securities and loans</b>				
(a) Up to 3 months	\$61,857	-0.25%	(\$155)	
(b) 3 to 12 months	\$31,856	-1.20%	(\$382)	
(c) 1 to 3 years	\$20,946	-3.60%	(\$754)	
(d) 3 to 5 years	\$16,256	-6.60%	(\$1,068)	
(e) 5 to 10 years	\$22,481	-10.80%	(\$2,383)	
(f) 10 to 20 years	\$19,675	-15.90%	(\$3,128)	
(g) Greater than 20 years	\$1,363	-19.00%	(\$259)	
<b>7. Self Reporting Items</b>				
(a) High risk mortgage securities	\$5,403		(\$473)	
(b) Non-high risk CMO's	\$1,664		(\$121)	
(c) Structured notes	\$2,694		(\$230)	
(d) Mortgage servicing rights	\$1,855		\$153	
(e) Swaps with embedded options	\$1,230		(\$1,750)	
(f) Options, caps, floors, etc.	\$1,520		\$600	
(g) Trading account	\$4,763		(\$243)	
<b>8. Total Interest-Sensitive Assets</b>	\$319,968		(\$17,580)	(\$17,580)
<b>II. ALL OTHER ASSETS</b>	\$6,000			
<b>III. TOTAL ASSETS</b>	\$327,968			
<b>IV. INTEREST-SENSITIVE LIABILITIES</b>				
<b>1. Non-maturity deposits, time deposits and "all other"</b>				
(a) Up to 3 months	\$51,679	0.25%	\$129	
(b) 3 to 12 months	\$65,102	1.20%	\$781	
(c) 1 to 3 years	\$117,453	3.70%	\$4,346	
(d) 3 to 5 years	\$36,001	7.00%	\$2,520	
(e) 5 to 10 years	\$28,639	12.00%	\$3,437	
(f) 10 to 20 years	\$0	19.50%	\$0	
(g) Greater than 20 years	\$0	26.30%	\$0	
<b>2. Total Interest-Sensitive Liabilities</b>	\$269,874		\$11,063	
<b>V. NONINTEREST-SENSITIVE LIABILITIES</b>	\$1,123			
<b>VI. TOTAL LIABILITIES</b>	\$269,997		\$11,063	\$11,063
<b>VII. EQUITY CAPITAL</b>	\$37,971			
<b>VIII. OFF-BALANCE SHEET POSITIONS</b>				
<b>1. Interest rate futures, forwards, and swaps</b>				
(a) Up to 3 months	\$3,200	-0.25%	(\$8)	
(b) 3 to 12 months	\$400	-1.20%	(\$5)	
(c) 1 to 3 years	(\$3,100)	-3.60%	(\$112)	
(d) 3 to 5 years	(\$500)	-6.60%	(\$33)	
(e) 5 to 10 years	\$0	-10.80%	\$0	
(f) 10 to 20 years	\$0	-15.90%	\$0	
(g) Greater than 20 years	\$0	-19.00%	\$0	
<b>2. Mortgage and other amortizing contracts</b>				
(a) Up to 3 months	\$900	-0.20%	(\$2)	
(b) 3 to 12 months	\$0	-0.70%	\$0	
(c) 1 to 3 years	\$0	-2.00%	\$0	
(d) 3 to 5 years	\$0	-3.70%	\$0	
(e) 5 to 10 years	\$0	-6.50%	\$0	
(f) 10 to 20 years	\$0	-11.10%	\$0	
(g) Greater than 20 years	(\$500)	-15.10%	(\$76)	
<b>3. Total Off-Balance-Sheet Positions</b>	\$0		\$266	\$266
<b>Net Risk Weighted Positions</b>				(\$6,201)
<b>Net Position/ Assets</b>				-1.89%



**Interest Rate Risk Worksheet (200 Basis Point Declining Rate Scenario)**

**Table 2A  
Bank A**

Reporting Institution: Sample Bank A (Baseline Schedule Only)

\$ THOUSANDS

**I. INTEREST - SENSITIVE ASSETS**

**1. FRM's**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**2. ARM's**

- (a) 0 to 6 months
- (b) 6 months to 1 year
- (c) Greater than 1 year
- (d) Near Lifetime Cap

**3. FRM's and ARM's with Binding Commitments**

**4. Other Amortizing Loans & Securities**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**5. Zero or low coupon securities**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**6. All other securities and loans**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**7. Self Reporting Items**

- (a) High risk mortgage securities
- (b) Non-high risk CMO's
- (c) Structured notes
- (d) Mortgage servicing rights
- (e) Swaps with embedded options
- (f) Options, caps, floors, etc.
- (g) Trading account

**8. Total Interest-Sensitive Assets**

**II. ALL OTHER ASSETS**

**III. TOTAL ASSETS**

**IV. INTEREST-SENSITIVE LIABILITIES**

**1. Non-maturity deposits, time deposits and "all other"**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**2. Total Interest-Sensitive Liabilities**

**V. NONINTEREST-SENSITIVE LIABILITIES**

**VI. TOTAL LIABILITIES**

**VII. EQUITY CAPITAL**

**VIII. OFF-BALANCE SHEET POSITIONS**

**1. Interest rate futures, forwards, and swaps**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**2. Mortgage and other amortizing contracts**

- (a) Up to 3 months
- (b) 3 to 12 months
- (c) 1 to 3 years
- (d) 3 to 5 years
- (e) 5 to 10 years
- (f) 10 to 20 years
- (g) Greater than 20 years

**3. Total Off-Balance-Sheet Positions**

Net Risk Weighted Positions  
Net Position/ Assets

	(A) TOTAL	(B) Risk Weights	(C) Risk Weighted Position	(D) Total Risk Weighted Position
<b>I. INTEREST - SENSITIVE ASSETS</b>				
<b>1. FRM's</b>				
(a) Up to 3 months	\$0	0.20%	\$0	
(b) 3 to 12 months	\$564	0.70%	\$4	
(c) 1 to 3 years	\$2,068	2.00%	\$41	
(d) 3 to 5 years	\$2,430	4.50%	\$109	
(e) 5 to 10 years	\$6,468	5.80%	\$375	
(f) 10 to 20 years	\$9,558	7.50%	\$717	
(g) Greater than 20 years	\$33,460	10.60%	\$3,547	
<b>2. ARM's</b>				
(a) 0 to 6 months	\$8,036	1.60%	\$129	
(b) 6 months to 1 year	\$12,053	1.90%	\$229	
(c) Greater than 1 year	\$4,018	5.10%	\$205	
(d) Near Lifetime Cap	\$2,679	4.40%	\$118	
<b>3. FRM's and ARM's with Binding Commitments</b>	\$1,652	0.25%	\$4	
<b>4. Other Amortizing Loans &amp; Securities</b>				
(a) Up to 3 months	\$988	0.20%	\$2	
(b) 3 to 12 months	\$2,782	0.70%	\$19	
(c) 1 to 3 years	\$5,206	2.00%	\$104	
(d) 3 to 5 years	\$6,422	3.90%	\$250	
(e) 5 to 10 years	\$7,187	7.20%	\$517	
(f) 10 to 20 years	\$4,315	13.30%	\$574	
(g) Greater than 20 years	\$4,983	20.00%	\$997	
<b>5. Zero or low coupon securities</b>				
(a) Up to 3 months	\$3,264	0.25%	\$8	
(b) 3 to 12 months	\$3,106	1.30%	\$40	
(c) 1 to 3 years	\$2,986	4.00%	\$119	
(d) 3 to 5 years	\$0	8.10%	\$0	
(e) 5 to 10 years	\$0	15.70%	\$0	
(f) 10 to 20 years	\$0	33.80%	\$0	
(g) Greater than 20 years	\$0	62.30%	\$0	
<b>6. All other securities and loans</b>				
(a) Up to 3 months	\$61,857	0.25%	\$155	
(b) 3 to 12 months	\$31,858	1.30%	\$414	
(c) 1 to 3 years	\$20,946	3.80%	\$796	
(d) 3 to 5 years	\$18,255	7.10%	\$1,296	
(e) 5 to 10 years	\$22,481	12.20%	\$2,743	
(f) 10 to 20 years	\$19,675	20.30%	\$3,994	
(g) Greater than 20 years	\$1,363	27.00%	\$368	
<b>7. Self Reporting Items</b>				
(a) High risk mortgage securities	\$3,403		\$482	
(b) Non-high risk CMO's	\$1,864		\$132	
(c) Structured notes	\$2,694		\$249	
(d) Mortgage servicing rights	\$1,835		(\$162)	
(e) Swaps with embedded options	\$1,230		(\$843)	
(f) Options, caps, floors, etc.	\$1,520		(\$665)	
(g) Trading account	\$4,763		\$361	
<b>8. Total Interest-Sensitive Assets</b>	\$319,968		\$17,427	\$17,427
<b>II. ALL OTHER ASSETS</b>	\$2,000			
<b>III. TOTAL ASSETS</b>	\$327,968			
<b>IV. INTEREST-SENSITIVE LIABILITIES</b>				
<b>1. Non-maturity deposits, time deposits and "all other"</b>				
(a) Up to 3 months	\$63,057	-0.25%	(\$158)	
(b) 3 to 12 months	\$125,124	-1.20%	(\$1,501)	
(c) 1 to 3 years	\$78,981	-3.90%	(\$3,080)	
(d) 3 to 5 years	\$12,078	-7.60%	(\$918)	
(e) 5 to 10 years	\$9,634	-14.00%	(\$1,349)	
(f) 10 to 20 years	\$0	-26.20%	\$0	
(g) Greater than 20 years	\$0	-40.30%	\$0	
<b>2. Total Interest-Sensitive Liabilities</b>	\$288,874		(\$7,006)	
<b>V. NONINTEREST-SENSITIVE LIABILITIES</b>	\$1,123			
<b>VI. TOTAL LIABILITIES</b>	\$289,997		(\$7,006)	(\$7,006)
<b>VII. EQUITY CAPITAL</b>	\$37,971			
<b>VIII. OFF-BALANCE SHEET POSITIONS</b>				
<b>1. Interest rate futures, forwards, and swaps</b>				
(a) Up to 3 months	\$3,200	0.25%	\$8	
(b) 3 to 12 months	\$400	1.30%	\$5	
(c) 1 to 3 years	(\$3,100)	3.80%	(\$118)	
(d) 3 to 5 years	(\$500)	7.10%	(\$36)	
(e) 5 to 10 years	\$0	12.20%	\$0	
(f) 10 to 20 years	\$0	20.30%	\$0	
(g) Greater than 20 years	\$0	27.00%	\$0	
<b>2. Mortgage and other amortizing contracts</b>				
(a) Up to 3 months	\$900	0.20%	\$2	
(b) 3 to 12 months	\$0	0.70%	\$0	
(c) 1 to 3 years	\$0	2.00%	\$0	
(d) 3 to 5 years	\$0	3.90%	\$0	
(e) 5 to 10 years	\$0	7.20%	\$0	
(f) 10 to 20 years	\$0	13.30%	\$0	
(g) Greater than 20 years	(\$900)	20.00%	(\$180)	
<b>3. Total Off-Balance-Sheet Positions</b>	\$0		(\$318)	(\$318)
<b>Net Risk Weighted Positions</b>				\$10,103
<b>Net Position/ Assets</b>				3.08%

### *III. Supplemental Module Worksheets*

The calculation of net IRR exposure for a bank using the supplemental schedules is similar to the process described for the baseline model. The primary difference is that the risk-weighted positions for the applicable residential mortgage portfolios are derived from the supplemental schedules and expanded risk-weight tables rather than from baseline schedules.

To illustrate the calculation, worksheets are provided for a hypothetical bank (Bank B) that has filed supplemental Schedule 2 (fixed-

rate mortgages) and Schedule 4 (adjustable-rate mortgages). Bank B uses these schedules because both its fixed-rate and adjustable-rate residential mortgage loans and pass-through securities holdings exceed 25% of its total assets. Schedules 1B, 2B and 4B (corresponding to the proposed Schedules 1, 2 and 4) show the data that Bank B has reported. Table 1B is the worksheet used to calculate Bank B's IRR exposure for the rising rate scenario. This worksheet is similar to the worksheets used for the baseline model. Column A combines and transcribes the balance information that Bank B

reported in Schedules 1B, 2B and 4B. Column B shows the applicable risk-weights for each instrument and maturity category. Column C reflects the estimated dollar change in value for each portfolio. The only difference in this worksheet and the one used for the baseline model is that risk-weighted positions in Column C for the fixed- and adjustable-rate mortgages are obtained by applying the expanded set of risk-weights (provided in Appendix 3) to the balances reported in Schedules 2B and 4B.

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**Proposed Interest Rate Risk Schedule**  
(to be completed by non-exempt institutions only)

Maturity and repricing data.  
Please break out the following items according to their remaining term to maturity or time to repricing:

**Schedule 1B**  
**Bank B**

	(Column A)		(Column B)		(Column C)		(Column D)		(Column E)		(Column F)		(Column G)		(Column H)	
	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou
Total																
a. ARM securities (use Memoranda below)	61	803														
b. Fixed rate mortgage securities	89	277	0		443		1	103	1	434	7	635	9	286	69	376
c. All other amortizing securities	15	173	654		1	661	3	322	4	429	4	553		554		0
d. Non-amortizing securities	74	234	15	626	12	440	5	176	7	813	12	141	19	675	1	363
e. Zero or low coupon securities	9	336	3	284	3	106	2	986	0	0	0	0	0	0	0	0
2. Loan and Leases:																
a. ARM loans (use Memoranda below)	92	713														
b. Fixed rate mortgage loans	54	968	0		0		419		1	169	3	154	5	722	44	504
c. Fixed & adjustable rate mortgage loans with firm commitments to sell	1	652														
d. Other amortizing loans	16	710	334		1	121	1	884	1	993	2	634	3	761	4	983
e. All other loans	102	201	46	231	19	418	15	770	10	442	10	340	0	0	0	0
3. All other int-bearing assets (Bal. due, Fed Funds)	4	433	3	100	1	333	0	0	0	0	0	0	0	0	0	0
4. Liabilities:																
a. Time deposits	261	221	78	506	117	459	31	323	33	933	0	0	0	0	0	0
b. All other interest-bearing non-deposit liabilities	18	839	2	237	8	387	8	215	0	0	0	0	0	0	0	0
c. Commercial DDAs - rising rates	26	209	13	136	0	0	7	844	5	229	0	0	0	0	0	0
d. MMDAs - rising rates	28	312	0	0	14	156	14	156	0	0	0	0	0	0	0	0
e. NOWs, savings, & other DDAs - rising rates	143	393	0	0	0	0	83	915	28	839	28	639	0	0	0	0
f. Commercial DDAs - declining rates	26	209	18	928	7	281	0	0	0	0	0	0	0	0	0	0
g. MMDAs - declining rates	28	312	3	386	16	756	8	170	0	0	0	0	0	0	0	0
h. NOWs, savings, & other DDAs - declining rates	143	393	2	200	60	141	61	273	10	145	9	634	0	0	0	0
5. Off-Balance Sheet Swaps, Futures, FRAs, Commitments, etc.																
a. Nonamortizing (excluding trading account)	0	0	3	200	400		-3	100	-500	0	0	0	0	0	0	0
b. Amortizing (excluding trading account)	0	0	900		0		0	0	0	0	0	0	0	0	0	-900

	(Column A)		(Column B)		(Column C)		(Column D)		(Column E)		(Column F)		(Column G)		(Column H)	
	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou	Bl	Mil /Thou
Carrying Value	5	234	5	403	4	930	4	885	4	930	4	930	4	930	5	885
Market Value	1	199	1	864	1	743	1	996	1	743	1	743	1	743	1	996
Rising Rates	2	349	2	694	2	464	2	943	2	464	2	464	2	464	2	943
Declining Rates	1	462	1	835	1	988	1	673	1	988	1	988	1	988	1	673
Reset Frequency																
0 to 6 Months																
6 Months to 1 Year																
Greater Than 1 Year																
ARM Securities																
ARM Loans																
ARM Loans																
ARM Securities																

Self Reported Items:  
6. High Risk Mortgage Securities  
7. Non-High-Risk CMOs  
8. Structured Notes  
9. Mortgage Servicing Rights  
10. Interest Rate Swaps with Embedded Options  
11. Interest-Rate Options  
12. Trading Account

Memoranda:  
1. ARM Securities  
2. ARM Loans  
3. ARM Loans  
4. ARM Securities

## Interest Rate Risk Worksheet (200 Basis Point Rising Rate Scenario)

Table 1B  
Bank B

Reporting Institution: Sample Bank B with Supplemental Schedules

\$ THOUSANDS

## I. INTEREST - SENSITIVE ASSETS

## 1. FRM's

(a) Result from Table 2B

## 2. ARM's

- (a) 6 mo. Current Market Index (Table 3B)  
 (b) 6 mo. to 1 yr. Current Market Index (Table 4B)  
 (c) Over 1 yr. Current Market Index (Table 5B)  
 (d) Lagging Market Index (Table 6B)

## 3. FRM's and ARM's with Binding Commitments

## 4. Other Amortizing Loans &amp; Securities

- (a) Up to 3 months  
 (b) 3 to 12 months  
 (c) 1 to 3 years  
 (d) 3 to 5 years  
 (e) 5 to 10 years  
 (f) 10 to 20 years  
 (g) Greater than 20 years

## 5. Zero or low coupon securities

- (a) Up to 3 months  
 (b) 3 to 12 months  
 (c) 1 to 3 years  
 (d) 3 to 5 years  
 (e) 5 to 10 years  
 (f) 10 to 20 years  
 (g) Greater than 20 years

## 6. All other securities and loans

- (a) Up to 3 months  
 (b) 3 to 12 months  
 (c) 1 to 3 years  
 (d) 3 to 5 years  
 (e) 5 to 10 years  
 (f) 10 to 20 years  
 (g) Greater than 20 years

## 7. Self Reporting Items

- (a) High risk mortgage securities  
 (b) Non-high risk CMO's  
 (c) Structured notes  
 (d) Mortgage servicing rights  
 (e) Swaps with embedded options  
 (f) Options, caps, floors, etc.  
 (g) Trading account

## 8. Total Interest-Sensitive Assets

## II. ALL OTHER ASSETS

## III. TOTAL ASSETS

## IV. INTEREST-SENSITIVE LIABILITIES

## 1. Non-maturity deposits, time deposits and "all other"

- (a) Up to 3 months  
 (b) 3 to 12 months  
 (c) 1 to 3 years  
 (d) 3 to 5 years  
 (e) 5 to 10 years  
 (f) 10 to 20 years  
 (g) Greater than 20 years

## 2. Total Interest-Sensitive Liabilities

## V. NONINTEREST-SENSITIVE LIABILITIES

## VI. TOTAL LIABILITIES

## VII. EQUITY CAPITAL

## VIII. OFF-BALANCE SHEET POSITIONS

## 1. Interest rate futures, forwards, and swaps

- (a) Up to 3 months  
 (b) 3 to 12 months  
 (c) 1 to 3 years  
 (d) 3 to 5 years  
 (e) 5 to 10 years  
 (f) 10 to 20 years  
 (g) Greater than 20 years

## 2. Mortgage and other amortizing contracts

- (a) Up to 3 months  
 (b) 3 to 12 months  
 (c) 1 to 3 years  
 (d) 3 to 5 years  
 (e) 5 to 10 years  
 (f) 10 to 20 years  
 (g) Greater than 20 years

## 3. Total Off-Balance-Sheet Positions

Net Risk Weighted Positions  
 Net Position/ Assets

	(A) TOTAL	(B) Risk Weights	(C) Risk Weighted Position	(D) Total Risk Weighted Position
<b>I. INTEREST - SENSITIVE ASSETS</b>				
<b>1. FRM's</b>				
(a) Result from Table 2B	\$144,245			(\$13,796)
<b>2. ARM's</b>				
(a) 6 mo. Current Market Index (Table 3B)	\$32,758			(\$2,372)
(b) 6 mo. to 1 yr. Current Market Index (Table 4B)	\$34,411			(\$2,051)
(c) Over 1 yr. Current Market Index (Table 5B)	\$42,802			(\$3,379)
(d) Lagging Market Index (Table 6B)	\$44,545			(\$2,814)
<b>3. FRM's and ARM's with Binding Commitments</b>	\$1,652	-0.25%		(\$4)
<b>4. Other Amortizing Loans &amp; Securities</b>				
(a) Up to 3 months	\$988	-0.20%		(\$2)
(b) 3 to 12 months	\$2,782	-0.70%		(\$19)
(c) 1 to 3 years	\$5,206	-2.00%		(\$104)
(d) 3 to 5 years	\$6,422	-3.70%		(\$238)
(e) 5 to 10 years	\$7,187	-6.50%		(\$467)
(f) 10 to 20 years	\$4,315	-11.10%		(\$479)
(g) Greater than 20 years	\$4,983	-15.10%		(\$752)
<b>5. Zero or low coupon securities</b>				
(a) Up to 3 months	\$3,264	-0.25%		(\$8)
(b) 3 to 12 months	\$3,106	-1.20%		(\$37)
(c) 1 to 3 years	\$2,986	-3.80%		(\$113)
(d) 3 to 5 years	\$0	-7.40%		\$0
(e) 5 to 10 years	\$0	-13.40%		\$0
(f) 10 to 20 years	\$0	-25.00%		\$0
(g) Greater than 20 years	\$0	-38.10%		\$0
<b>6. All other securities and loans</b>				
(a) Up to 3 months	\$61,857	-0.25%		(\$155)
(b) 3 to 12 months	\$31,858	-1.20%		(\$382)
(c) 1 to 3 years	\$20,946	-3.60%		(\$754)
(d) 3 to 5 years	\$18,255	-6.60%		(\$1,205)
(e) 5 to 10 years	\$22,481	-10.60%		(\$2,383)
(f) 10 to 20 years	\$19,675	-15.90%		(\$3,128)
(g) Greater than 20 years	\$1,363	-19.00%		(\$259)
<b>7. Self Reporting Items</b>				
(a) High risk mortgage securities	\$5,403			(\$473)
(b) Non-high risk CMO's	\$1,864			(\$121)
(c) Structured notes	\$2,694			(\$230)
(d) Mortgage servicing rights	\$1,835			\$153
(e) Swaps with embedded options	\$1,230			(\$1,750)
(f) Options, caps, floors, etc.	\$1,520			\$800
(g) Trading account	\$4,763			(\$243)
<b>8. Total Interest-Sensitive Assets</b>	\$537,396			(\$36,767)
<b>II. ALL OTHER ASSETS</b>	\$4,000			
<b>III. TOTAL ASSETS</b>	\$541,396			
<b>IV. INTEREST-SENSITIVE LIABILITIES</b>				
<b>1. Non-maturity deposits, time deposits and "all other"</b>				
(a) Up to 3 months	\$93,879	0.25%		\$235
(b) 3 to 12 months	\$140,002	1.20%		\$1,660
(c) 1 to 3 years	\$147,453	3.70%		\$5,456
(d) 3 to 5 years	\$68,001	7.00%		\$4,760
(e) 5 to 10 years	\$28,639	12.00%		\$3,437
(f) 10 to 20 years	\$0	19.90%		\$0
(g) Greater than 20 years	\$0	26.30%		\$0
<b>2. Total Interest-Sensitive Liabilities</b>	\$477,974			\$15,567
<b>V. NONINTEREST-SENSITIVE LIABILITIES</b>	\$1,123			
<b>VI. TOTAL LIABILITIES</b>	\$479,097		\$15,567	\$15,567
<b>VII. EQUITY CAPITAL</b>	\$62,299			
<b>VIII. OFF-BALANCE SHEET POSITIONS</b>				
<b>1. Interest rate futures, forwards, and swaps</b>				
(a) Up to 3 months	\$3,200	-0.25%		(\$8)
(b) 3 to 12 months	\$400	-1.20%		(\$5)
(c) 1 to 3 years	(\$3,100)	-3.60%		\$112
(d) 3 to 5 years	(\$500)	-6.60%		\$33
(e) 5 to 10 years	\$0	-10.60%		\$0
(f) 10 to 20 years	\$0	-15.90%		\$0
(g) Greater than 20 years	\$0	-19.00%		\$0
<b>2. Mortgage and other amortizing contracts</b>				
(a) Up to 3 months	\$900	-0.20%		(\$2)
(b) 3 to 12 months	\$0	-0.70%		\$0
(c) 1 to 3 years	\$0	-2.00%		\$0
(d) 3 to 5 years	\$0	-3.70%		\$0
(e) 5 to 10 years	\$0	-6.50%		\$0
(f) 10 to 20 years	\$0	-11.10%		\$0
(g) Greater than 20 years	(\$900)	-15.10%		\$136
<b>3. Total Off-Balance-Sheet Positions</b>	\$0			\$266
<b>Net Risk Weighted Positions</b>				(\$20,934)
<b>Net Position/ Assets</b>				-3.87%

Table 2B illustrates how the change in value for Bank B's fixed-rate mortgage portfolio is calculated. The first block of information in Table 2B is the balances that Bank B reported in Schedule 2B. Note that the total balance shown in the right-hand corner of Table 2B, \$144.245 million, corresponds to the total balance shown in Column A for line 1 in Table 1B. The second block of information reproduces the risk-weights shown in Appendix 3 for Schedule 2. The last

block of information shows the net risk-weighted position for each coupon and maturity category and is derived by multiplying the balances shown in the first block by the corresponding risk-weight in the second block. For example, Bank B has \$1.008 million of fixed-rate balances with a maturity of 5-10 years and coupons between 6.76 and 7.25 percent. The agencies have estimated the present value of such balances will decline by 7.80% if

interest rates increase by 200 basis points. Thus, the estimated decline in the value of these balances is \$79 thousand, the product of \$1.008 million times - 7.80%. The change in value for each maturity and coupon category are summed to produce a net change in Bank B's fixed-rate mortgage portfolio of -\$13.796 million. This amount is transcribed to Column C in line 1 for the worksheet shown in Table 1B.

SCHEDULE 2B.—BANK B—FIXED-RATE MORTGAGES

[Supplemental Reporting Schedule]

[To be completed by banks with FRM holdings > 20% of total assets]

Balance with coupons of:	Remaining time to maturity			
	(Column A) 5 years or less	(Column B) over 5 years through 10 years	(Column C) over 10 years through 20 years	(Column D) over 20 years
2. <=6.75% .....	\$149	\$246	\$1,284	\$9,362
3. 6.76%–7.25% .....	793	1,008	2,451	10,041
4. 7.26%–7.75% .....	726	1,095	2,068	13,498
5. 7.76%–8.25% .....	833	1,163	1,984	15,984
6. 8.26%–8.75% .....	623	1,994	2,201	16,498
7. 8.76%–9.25% .....	511	2,541	2,468	27,375
8. 9.26%–9.75% .....	336	2,006	1,604	19,230
9. >=9.75% .....	597	736	948	1,892

TABLE 2B.—BANK B—FIXED-RATE MORTGAGES

[Supplemental Reporting Worksheet]

Balance from Schedule 2B

Balance with coupons of:	Remaining time to maturity				Total
	(Column A) 5 years or less	(Column B) over 5 years through 10 years	(Column C) over 10 years through 20 years	(Column D) over 20 years	
2.<=6.75% .....	\$149	\$246	\$1,284	\$9,362	\$11,041
3. 6.76%–7.25% .....	793	1,008	2,451	10,041	14,293
4. 7.26%–7.75% .....	726	1,095	2,068	13,498	17,387
5. 7.76%–8.25% .....	833	1,163	1,984	15,984	19,964
6. 8.26%–8.75% .....	623	1,994	2,201	16,498	21,316
7. 8.76%–9.25% .....	511	2,541	2,468	27,375	32,895
8. 9.26%–9.75% .....	336	2,006	1,604	19,230	23,176
9. >9.75% .....	597	736	948	1,892	4,173
Total .....	4,568	10,789	15,008	113,880	144,245

Risk Weights—Rising Rates

Balance with coupons of:	Remaining time to maturity			
	(Column A) 5 years or less (percent)	(Column B) over 5 years through 10 years (percent)	(Column C) over 10 years through 20 years (percent)	(Column D) over 20 years (percent)
<=6.75% .....	-6.00	-7.90	-8.90	-12.30
6.76%–7.25% .....	-5.90	-7.80	-8.80	-11.90
7.26%–7.75% .....	-5.70	-7.60	-8.50	-11.50
7.76%–8.25% .....	-5.50	-7.20	-8.20	-11.00

Risk Weights—Rising Rates

Balance with coupons of:	Remaining time to maturity			
	(Column A) 5 years or less (percent)	(Column B) over 5 years through 10 years (percent)	(Column C) over 10 years through 20 years (percent)	(Column D) over 20 years (percent)
8.26%–8.75% .....	- 5.20	- 6.80	- 7.70	- 10.30
8.76%–9.25% .....	- 4.70	- 6.10	- 7.10	- 9.50
9.26%–9.75% .....	- 4.10	- 5.40	- 6.40	- 8.50
>=9.75% .....	- 3.00	- 3.90	- 4.90	- 6.30

Net Position (Balance × Risk Weight) (\$)

Balance with coupons of:	Remaining time to maturity				Total
	(Column A) 5 years or less	(Column B) over 5 years through 10 years	(Column C) over 10 years through 20 years	(Column D) over 20 years	
<=6.75% .....	(\$9)	(\$19)	(\$114)	(\$1,152)	(\$1,294)
6.76%–7.25 .....	(47)	(79)	(216)	(1,195)	(1,536)
7.26%–7.75% .....	(41)	(83)	(176)	(1,552)	1,853
7.76%–8.25% .....	(46)	(84)	(163)	(1,758)	(2,050)
8.26%–8.75% .....	(32)	(136)	(169)	(1,699)	(2,037)
8.76%–9.25% .....	(24)	(155)	(175)	(2,601)	(2,955)
9.26%–9.75% .....	(14)	(108)	(103)	(1,635)	(1,859)
>=9.75% .....	(18)	(29)	46)	(119)	(212)
<b>Total .....</b>	<b>(231)</b>	<b>(693)</b>	<b>(1,162)</b>	<b>(11,711)</b>	<b>(13,796)</b>

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**Schedule 4B  
BANK B  
ADJUSTABLE RATE MORTGAGES  
(SUPPLEMENTAL REPORTING SCHEDULE)  
(To be completed by banks with ARM holdings greater than 25% of total assets)**

	Current Market Index Reset Frequency							Lagging Market Index by Reset Frequency	
	6 Months or Less		Over 6 Months to 1 Year		Over 1 Year		Over 1 Month or Less	Over 1 Month	
	(Col. A) No Periodic Cap	(Col. B) Periodic Cap	(Col. C) No Periodic Cap	(Col. D) Periodic Cap of 150 bp or Less	(Col. E) Periodic Cap More Than 150 bp	(Col. F) No Periodic Cap			(Col. G) Periodic Cap
2. Instruments 200 basis points or less from the lifetime cap									
Balance	\$203	\$3,023	\$425	\$1,265	\$1,789	\$493	\$1,693	\$2,849	
WAC	7.80%	5.60%	7.50%	8.10%	9.20%	8.30%	7.50%	8.20%	
3. Instruments 201 to 400 basis points from the lifetime cap									
Balance	\$756	\$5,361	\$1,816	\$1,932	\$2,695	\$803	\$3,649	\$5,113	
WAC	6.50%	4.63%	6.30%	7.50%	8.00%	7.50%	6.20%	7.30%	
4. Instruments 401 to 600 basis points from the lifetime cap									
Balance	\$864	\$9,123	\$1,069	\$3,016	\$6,432	\$1,236	\$6,183	\$6,934	
WAC	6.10%	4.83%	5.30%	6.60%	7.00%	7.30%	4.80%	5.60%	
5. Instruments more than 600 basis points from the lifetime cap									
Balance	\$864	\$12,564	\$2,312	\$3,765	\$7,895	\$1,432	\$8,931	\$9,193	
WAC	8.00%	3.20%	3.90%	4.60%	5.80%	5.80%	4.20%	4.90%	

Tables 3B–6B illustrate how the change in value for Bank B's ARM holdings is calculated. Table 3B shows the calculation for the Bank B's ARMs that are priced off of the current market index and have hest frequencies or 6 months or less. Table 4B shows the similar calculation for the current market-indexed ARMs with reset frequencies of 6 months to 1 year while Table 5B is for the current market-indexed ARMs with reset frequencies over 1 year. Table 6B is for Bank B's lagging market-indexed ARMs. The steps for calculating the change in value for each of these sub-portfolios is identical so only Table 3B is described.

The first block of information on Table 3B is the balance and coupon data that Bank B reported for this category of

ARMs on Schedule 4B. The second block of information reproduces the applicable risk weights for this product in the rising rate scenario from Appendix 3. The highlighted risk weights represent the risk weights applied to the balances and coupon data reported by Bank B in Schedule 4B. The third block of information is the net position for each category of ARMs, representing the estimated decline in value for a 200 basis increase in interest rates. The net position is derived by multiplying the balance shown in the first block by the corresponding risk-weight in the second block. For example, Bank B has \$3.023 million of current market-indexed ARMs that have a reset frequency of 6 months or less that are currently within 200 basis

points of their lifetime cap and that also have a periodic cap. These balances have a weighted average coupon of 5.60%. The applicable risk-weight for these mortgages is the one shown for ARMs with these characteristics and a weighted average coupon between 4.76 and 6.25 percent, or –8.70%. The decline in value for these mortgage loan balances is \$263 thousand, the product of the balance (\$3.023 million) times the applicable risk weight (–8.70%). Similar calculations are used to for the remaining balances reported in Tables 3B–6B. The total amounts are then summed (\$2.372 million) and reported in Column C of the worksheet in Table 1B.

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**Table 3B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Current Market Index - 6 Month or Less Reset Frequency**

**Balance from Schedule 4B**

	Distance from The Lifetime Cap												Total
	200 basis points or less			201 to 400 basis poi			401 to 600 basis po			Over 600 basis points			
	No Periodic Cap	Periodic Cap	5.60%	No Periodic Cap	Periodic Cap	4.65%	No Periodic Cap	Periodic Cap	6.10%	No Periodic Cap	Periodic Cap	8.00%	
Balance	\$203	\$3,023		\$756	\$5,361		\$864	\$9,123		\$864	\$12,564		\$32,758
WAC	7.80%	5.60%		6.50%	4.65%		6.10%	4.83%		8.00%	3.20%		

**Risk Weights - Rising Rates**

	Distance from The Lifetime Cap											
	200 basis points or less			201 to 400 basis poi			401 to 600 basis po			Over 600 basis points		
	No Periodic Cap	Periodic Cap		No Periodic Cap	Periodic Cap		No Periodic Cap	Periodic Cap		No Periodic Cap	Periodic Cap	
Weighted Average Coupon Range	4.75% and under	-9.20%		-8.80%	-9.00%		-7.20%	-8.20%		-4.40%	-7.10%	
	4.76% to 6.25%	-8.70%		-7.70%	-8.20%		-5.20%	-6.90%		-2.40%	-5.60%	
	6.26% to 7.75%	-7.40%		-5.80%	-6.70%		-3.00%	-5.00%		-1.20%	-3.90%	
	Over 7.75%	-5.10%		-3.60%	-4.20%		-1.50%	-2.70%		-0.70%	-2.10%	

**Net Position (Balance x Risk Weights)**

	Distance from The Lifetime Cap												Total
	200 basis points or less			201 to 400 basis points			401 to 600 basis point			Over 600 basis points			
	No Periodic Cap	Periodic Cap		No Periodic Cap	Periodic Cap		No Periodic Cap	Periodic Cap		No Periodic Cap	Periodic Cap		
Net Position	(\$10)	(\$263)		(\$44)	(\$482)		(\$45)	(\$629)		(\$6)	(\$892)		(\$2,372)

**Table 4B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Current Market Index - 6 Months to 1 Year Reset Frequency**

**Balance from Schedule 4B**

	Distance from The Lifetime Cap												Total
	200 basis points or less			201 to 400 basis points			401 to 600 basis points			Over 600 basis points			
	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	
Balance	\$425	\$1,265	\$1,789	\$1,816	\$1,932	\$2,695	\$1,069	\$3,016	\$6,432	\$2,312	\$3,765	\$7,895	\$34,411
WAC	7.50%	8.10%	9.20%	6.30%	7.50%	8.00%	5.30%	6.60%	7.00%	3.90%	4.60%	5.80%	

**Risk Weights - Rising Rates**

	Distance from The Lifetime Cap											
	200 basis points or less			201 to 400 basis points			401 to 600 basis points			Over 600 basis points		
	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp
Weighted Average Coupon Range	-9.20%	-9.30%	-9.20%	-8.90%	-9.10%	-9.00%	-7.60%	-8.70%	-8.20%	-5.10%	-8.20%	-7.10%
4.75% and under	-8.70%	-8.80%	-8.70%	-8.40%	-8.40%	-8.20%	-5.80%	-7.70%	-6.90%	-3.00%	-7.20%	-5.60%
4.76% to 6.25%	-7.70%	-7.80%	-7.70%	-6.40%	-7.30%	-6.80%	-3.60%	-6.40%	-5.10%	-1.60%	-5.90%	-4.00%
6.26% to 7.75%	-5.80%	-6.20%	-5.80%	-4.20%	-5.50%	-4.70%	-1.90%	-4.60%	-3.10%	-1.00%	-4.30%	-2.50%

**Net Position (Balance x Net Position)**

	Distance from The Lifetime Cap												Total
	200 basis points or less			201 to 400 basis points			401 to 600 basis points			Over 600 basis points			
	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	
Net Position	(\$33)	(\$78)	(\$104)	(\$116)	(\$141)	(\$127)	(\$62)	(\$193)	(\$328)	(\$118)	(\$309)	(\$442)	(\$2,051)

**Table 5B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Current Market Index - Over 1 Year Reset Frequency**

**Balance from Schedule 4B**

	Distance from The Lifetime Cap										Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		Over 600 basis points				
	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	
Balance	\$493	\$4,063	\$803	\$7,723	\$1,236	\$11,189	\$1,432	\$15,863	\$1,432	\$15,863	\$42,802
WAC	8.30%	7.40%	7.50%	6.80%	7.30%	6.40%	5.80%	4.70%	5.80%	4.70%	

**Risk Weights - Rising Rates**

	Distance from The Lifetime Cap										
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		Over 600 basis points				
	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	
Weighted Average Coupon Range	5.50% and under	-9.20%	-8.90%	-9.00%	-7.90%	-8.80%	-6.30%	-8.60%	-7.40%	-4.80%	-2.80%
	5.51% to 8.00%	-8.20%	-7.60%	-8.00%	-6.10%	-7.50%	-4.20%	-7.40%	-4.80%	-4.80%	-2.80%
	8.01% to 10.50%	-5.60%	-4.60%	-5.30%	-3.10%	-4.90%	-2.30%	-4.80%	-2.10%	-2.80%	-2.80%
	Over 10.50%	-3.30%	-2.80%	-3.10%	-2.10%	-2.80%	-2.10%	-2.80%	-2.10%	-2.80%	-2.80%

**Net Position (Balance x Risk Weights)**

	Distance from The Lifetime Cap										Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		Over 600 basis points				
	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	
Net Position	(\$28)	(\$333)	(\$61)	(\$618)	(\$75)	(\$839)	(\$60)	(\$1,364)	(\$60)	(\$1,364)	(\$3,379)

**Table 6B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Lagging Market Index - Reset Frequencies (RF)**

**Balance from Schedule 4B**

	Distance from The Lifetime Cap						Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		
	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	Over 1 Month RF
Balance	\$1,693	\$2,849	\$3,649	\$5,113	\$6,183	\$6,934	\$9,193
WAC	7.50%	8.20%	6.20%	7.30%	4.80%	5.60%	4.90%

**Risk Weights - Rising Rates**

	Distance from The Lifetime Cap					
	200 basis points or less		201 to 400 basis points		401 to 600 basis points	
	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF
Weighted	-9.30%	-9.20%	-9.00%	-7.50%	-8.20%	-5.00%
Average	-8.40%	-8.10%	-7.30%	-4.90%	-5.70%	-2.80%
Coupon	-7.50%	-7.20%	-6.20%	-3.70%	-4.50%	-2.20%
Range	-4.80%	-5.30%	-3.70%	-4.50%	-2.20%	-1.70%

**Net Position (Balance x Risk Weights)**

	Distance from The Lifetime Cap						Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		
	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	Over 1 Month RF
Net Position	(\$127)	(\$151)	(\$270)	(\$317)	(\$464)	(\$395)	(\$644)
							(\$2,814)

Tables 7B-12B show the calculations for Bank B's IRR exposure for the declining rate scenario.

BILLING CODE 6714-01-P

## Interest Rate Risk Worksheet (200 Basis Point Declining Rate Scenario)

Table 7B  
BANK B

Reporting Institution: Sample Bank B with Supplemental Schedules

\$ THOUSANDS

## I. INTEREST - SENSITIVE ASSETS

1. FRM's
  - (a) Result from FRM Table 8B
2. ARM's
  - (a) 6 mo. Current Market Index (Table 9B)
  - (b) 6 mo. to 1 yr. Current Market Index (Table 10B)
  - (c) Over 1 yr. Current Market Index (Table 11B)
  - (d) Lagging Market Index (Table 12B)
3. FRM's and ARM's with Binding Commitments
4. Other Amortizing Loans & Securities
  - (a) Up to 3 months
  - (b) 3 to 12 months
  - (c) 1 to 3 years
  - (d) 3 to 5 years
  - (e) 5 to 10 years
  - (f) 10 to 20 years
  - (g) Greater than 20 years
5. Zero or low coupon securities
  - (a) Up to 3 months
  - (b) 3 to 12 months
  - (c) 1 to 3 years
  - (d) 3 to 5 years
  - (e) 5 to 10 years
  - (f) 10 to 20 years
  - (g) Greater than 20 years
6. All other securities and loans
  - (a) Up to 3 months
  - (b) 3 to 12 months
  - (c) 1 to 3 years
  - (d) 3 to 5 years
  - (e) 5 to 10 years
  - (f) 10 to 20 years
  - (g) Greater than 20 years
7. Self Reporting Items
  - (a) High risk mortgage securities
  - (b) Non-high risk CMO's
  - (c) Structured notes
  - (d) Mortgage servicing rights
  - (e) Swaps with embedded options
  - (f) Options, caps, floors, etc.
  - (g) Trading account
8. Total Interest-Sensitive Assets

## II. ALL OTHER ASSETS

## III. TOTAL ASSETS

## IV. INTEREST-SENSITIVE LIABILITIES

1. Non-maturity deposits, time deposits and "all other"
    - (a) Up to 3 months
    - (b) 3 to 12 months
    - (c) 1 to 3 years
    - (d) 3 to 5 years
    - (e) 5 to 10 years
    - (f) 10 to 20 years
    - (g) Greater than 20 years
  2. Total Interest-Sensitive Liabilities
- V. NONINTEREST-SENSITIVE LIABILITIES
- VI. TOTAL LIABILITIES
- VII. EQUITY CAPITAL

## VIII. OFF-BALANCE SHEET POSITIONS

1. Interest rate futures, forwards, and swaps
  - (a) Up to 3 months
  - (b) 3 to 12 months
  - (c) 1 to 3 years
  - (d) 3 to 5 years
  - (e) 5 to 10 years
  - (f) 10 to 20 years
  - (g) Greater than 20 years
2. Mortgage and other amortizing contracts
  - (a) Up to 3 months
  - (b) 3 to 12 months
  - (c) 1 to 3 years
  - (d) 3 to 5 years
  - (e) 5 to 10 years
  - (f) 10 to 20 years
  - (g) Greater than 20 years
3. Total Off-Balance-Sheet Positions

Net Risk Weighted Positions  
Net Position/ Assets

	(A) TOTAL	(B) Risk Weights	(C) Risk Weighted Position	(D) Total Risk Weighted Position
<b>I. INTEREST - SENSITIVE ASSETS</b>				
1. FRM's				
(a) Result from FRM Table 8B	\$144,245		\$10,886	
2. ARM's				
(a) 6 mo. Current Market Index (Table 9B)	\$32,758		\$1,865	
(b) 6 mo. to 1 yr. Current Market Index (Table 10B)	\$34,411		\$1,224	
(c) Over 1 yr. Current Market Index (Table 11B)	\$42,802		\$3,045	
(d) Lagging Market Index (Table 12B)	\$44,545		\$1,852	
3. FRM's and ARM's with Binding Commitments	\$1,652	0.25%	\$4	
4. Other Amortizing Loans & Securities				
(a) Up to 3 months	\$988	0.20%	\$2	
(b) 3 to 12 months	\$2,782	0.70%	\$19	
(c) 1 to 3 years	\$5,206	2.00%	\$104	
(d) 3 to 5 years	\$6,422	3.90%	\$250	
(e) 5 to 10 years	\$7,187	7.20%	\$517	
(f) 10 to 20 years	\$4,315	13.30%	\$574	
(g) Greater than 20 years	\$4,983	20.00%	\$997	
5. Zero or low coupon securities				
(a) Up to 3 months	\$3,264	0.25%	\$8	
(b) 3 to 12 months	\$3,106	1.30%	\$40	
(c) 1 to 3 years	\$2,986	4.00%	\$119	
(d) 3 to 5 years	\$0	8.10%	\$0	
(e) 5 to 10 years	\$0	15.70%	\$0	
(f) 10 to 20 years	\$0	33.80%	\$0	
(g) Greater than 20 years	\$0	62.30%	\$0	
6. All other securities and loans				
(a) Up to 3 months	\$61,857	0.25%	\$155	
(b) 3 to 12 months	\$31,858	1.30%	\$414	
(c) 1 to 3 years	\$20,946	3.80%	\$796	
(d) 3 to 5 years	\$18,255	7.10%	\$1,296	
(e) 5 to 10 years	\$22,481	12.20%	\$2,743	
(f) 10 to 20 years	\$19,675	20.30%	\$3,994	
(g) Greater than 20 years	\$1,363	27.00%	\$368	
7. Self Reporting Items				
(a) High risk mortgage securities	\$5,403		(\$473)	
(b) Non-high risk CMO's	\$1,864		(\$121)	
(c) Structured notes	\$2,694		(\$230)	
(d) Mortgage servicing rights	\$1,835		\$153	
(e) Swaps with embedded options	\$1,230		(\$1,750)	
(f) Options, caps, floors, etc.	\$1,520		\$800	
(g) Trading account	\$4,763		(\$243)	
8. Total Interest-Sensitive Assets	\$537,396		\$29,409	\$29,409
II. ALL OTHER ASSETS	\$4,000			
III. TOTAL ASSETS	\$541,396			
IV. INTEREST-SENSITIVE LIABILITIES				
1. Non-maturity deposits, time deposits and "all other"				
(a) Up to 3 months	\$105,257	-0.25%	(\$263)	
(b) 3 to 12 months	\$210,024	-1.20%	(\$2,520)	
(c) 1 to 3 years	\$108,981	-3.90%	(\$4,250)	
(d) 3 to 5 years	\$44,078	-7.60%	(\$3,350)	
(e) 5 to 10 years	\$9,634	-14.00%	(\$1,349)	
(f) 10 to 20 years	\$0	-26.20%	\$0	
(g) Greater than 20 years	\$0	-40.30%	\$0	
2. Total Interest-Sensitive Liabilities	\$477,974		(\$11,732)	
V. NONINTEREST-SENSITIVE LIABILITIES	\$1,123			
VI. TOTAL LIABILITIES	\$479,097		(\$11,732)	(\$11,732)
VII. EQUITY CAPITAL	\$62,299			
VIII. OFF-BALANCE SHEET POSITIONS				
1. Interest rate futures, forwards, and swaps				
(a) Up to 3 months	\$3,200	0.25%	\$8	
(b) 3 to 12 months	\$400	1.30%	\$5	
(c) 1 to 3 years	(\$3,100)	3.80%	(\$118)	
(d) 3 to 5 years	(\$500)	7.10%	(\$36)	
(e) 5 to 10 years	\$0	12.20%	\$0	
(f) 10 to 20 years	\$0	20.30%	\$0	
(g) Greater than 20 years	\$0	27.00%	\$0	
2. Mortgage and other amortizing contracts				
(a) Up to 3 months	\$900	0.20%	\$2	
(b) 3 to 12 months	\$0	0.70%	\$0	
(c) 1 to 3 years	\$0	2.00%	\$0	
(d) 3 to 5 years	\$0	3.90%	\$0	
(e) 5 to 10 years	\$0	7.20%	\$0	
(f) 10 to 20 years	\$0	13.30%	\$0	
(g) Greater than 20 years	(\$900)	20.00%	(\$180)	
3. Total Off-Balance-Sheet Positions	\$0		(\$318)	(\$318)
Net Risk Weighted Positions				\$17,358
Net Position/ Assets				3.21%

TABLE 8B.—BANK B—FIXED-RATE MORTGAGES  
 [Supplemental Reporting Worksheet]  
 Balance from Schedule 2B

Balance with coupons of:	Remaining time to maturity				Total
	(Column A) 5 years or less	(Column B) over 5 years through 10 years	(Column C) over 10 years through 20 years	(Column D) over 20 years	
2. <=6.75% .....	\$149	\$246	\$1,284	\$9,362	\$11,041
3. 6.76%–7.25% .....	793	1,008	2,451	10,041	14,293
4. 7.26%–7.75% .....	726	1,095	2,068	13,498	17,387
5. 7.76%–8.25% .....	833	1,163	1,984	15,984	19,964
6. 8.26%–8.75% .....	623	1,994	2,201	16,498	21,316
7. 8.76%–9.25% .....	511	2,541	2,468	27,375	32,895
8. 9.26%–9.75% .....	336	2,006	1,604	19,230	23,176
9. >9.75% .....	597	736	948	1,892	4,173
<b>Total</b> .....	<b>4,568</b>	<b>10,789</b>	<b>15,008</b>	<b>113,880</b>	<b>144,245</b>

## Risk Weights—Declining Rates

Balance with coupons of:	Remaining time to maturity			
	(Column A) 5 years or less (percent)	(Column B) over 5 years through 10 years (percent)	(Column C) over 10 years through 20 years (percent)	(Column D) over 20 years (percent)
<=6.75% .....	5.80	7.80	9.30	13.40
6.76%–7.25% .....	5.20	6.90	8.50	12.10
7.26%–7.75% .....	4.50	5.80	7.50	10.60
7.76%–8.25% .....	3.70	4.80	6.50	9.10
8.26%–8.75% .....	3.10	3.80	5.50	7.60
8.76%–9.25% .....	2.60	3.10	4.50	6.20
9.26%–9.75% .....	2.30	2.70	3.80	5.10
>=9.75% .....	2.10	2.40	2.90	3.50

## Net Position (Balance x Risk Weight) (\$)

Balance with coupons of:	Remaining time to maturity				Total
	(Column A) 5 years or less (percent)	(Column B) over 5 years through 10 years (percent)	(Column C) over 10 years through 20 years (percent)	(Column D) over 20 years (percent)	
<=6.75% .....	\$9	\$19	\$119	\$1,255	\$1,402
6.76%–7.25% .....	41	70	208	1,215	1,534
7.26%–7.75% .....	33	64	155	1,431	1,682
7.76%–8.25% .....	31	56	129	1,455	1,670
8.26%–8.75% .....	19	76	121	1,254	1,470
8.76%–9.25% .....	13	79	111	1,697	1,900
9.26%–9.75% .....	8	54	61	981	1,104
>=9.75% .....	13	18	27	66	124
<b>Total</b> .....	<b>166</b>	<b>434</b>	<b>932</b>	<b>9,353</b>	<b>10,886</b>





**Table 10B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Current Market Index - 6 Months to 1 Year Reset Frequency**

**Balance from Schedule 4B**

	Distance from The Lifetime Cap												Total
	200 basis points or less			201 to 400 basis points			401 to 600 basis points			Over 600 basis points			
	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	
Balance	\$425	\$1,265	\$1,789	\$1,816	\$1,932	\$2,695	\$1,069	\$3,016	\$6,432	\$2,312	\$3,765	\$7,895	\$34,411
WAC	7.50%	8.10%	9.20%	6.30%	7.50%	8.00%	5.30%	6.60%	7.00%	3.90%	4.60%	5.80%	

**Risk Weights - Declining Rates**

	Distance from The Lifetime Cap											
	200 basis points or less			201 to 400 basis points			401 to 600 basis points			Over 600 basis points		
	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp
Weighted	10.40%	10.40%	10.40%	8.90%	9.70%	9.30%	5.50%	8.40%	7.10%	2.30%	7.60%	5.30%
Average	8.40%	8.70%	8.40%	6.30%	7.80%	6.90%	2.90%	6.40%	4.60%	1.20%	5.80%	3.40%
Coupon	5.30%	5.90%	5.30%	3.60%	5.10%	4.00%	1.40%	4.00%	2.30%	0.80%	3.70%	1.80%
Range	2.50%	2.90%	2.50%	1.70%	2.40%	1.80%	0.90%	1.90%	1.00%	0.70%	1.80%	0.90%

**Net Position (Balance x Net Position)**

	Distance from The Lifetime Cap												Total
	200 basis points or less			201 to 400 basis points			401 to 600 basis points			Over 600 basis points			
	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	No Periodic Cap	Periodic Cap of 150 bp or Less	Periodic Cap More Than 150 bp	
Net Position	\$23	\$37	\$45	\$65	\$99	\$49	\$31	\$121	\$148	\$53	\$286	\$268	\$1,224

**Table 11B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Current Market Index - Over 1 Year Reset Frequency**

**Balance from Schedule 4B**

	Distance from The Lifetime Cap												Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		Over 600 basis points						
	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	
Balance	\$493	\$4,063	\$803	\$7,723	\$1,236	\$11,189	\$1,432	\$15,863	\$1,432	\$15,863	\$1,432	\$15,863	*****
WAC	8.30%	7.40%	7.50%	6.80%	7.30%	6.40%	5.80%	4.70%	5.80%	4.70%	5.80%	4.70%	

**Risk Weights - Declining Rates**

	Distance from The Lifetime Cap												
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		Over 600 basis points						
	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	
Weighted Average Coupon Range	10.00%	10.00%	9.00%	9.50%	6.70%	8.70%	4.30%	8.40%	6.20%	6.40%	2.60%	6.20%	2.60%
	7.50%	7.50%	6.20%	7.00%	3.90%	6.40%	2.60%	2.60%	1.90%	2.70%	1.90%	2.60%	2.60%
	3.20%	3.20%	2.60%	2.90%	2.00%	2.70%	1.90%	1.90%	1.90%	2.20%	1.90%	2.20%	2.20%
	2.10%	2.30%	2.00%	2.20%	1.90%	2.20%	1.90%	1.90%	1.90%	2.20%	1.90%	2.20%	2.20%

**Net Position (Balance x Risk Weights)**

	Distance from The Lifetime Cap												Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		Over 600 basis points						
	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	No Periodic Cap	Periodic Cap	
Net Position	\$16	\$305	\$50	\$541	\$48	\$716	\$37	\$1,332	\$37	\$1,332	\$37	\$1,332	\$3,045

**Table 12B  
BANK B  
ADJUSTABLE RATE MORTGAGES**

**Lagging Market Index - Reset Frequencies (RF)**

**Balance from Schedule 4**

	Distance from The Lifetime Cap						Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		
	Over 1 Month or less RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month or less RF
Balance	\$1,693	\$2,849	\$5,113	\$6,183	\$6,934	\$8,931	\$9,193
WAC	7.50%	8.20%	7.30%	4.80%	5.60%	4.20%	4.90%

**Risk Weights - Declining Rates**

	Distance from The Lifetime Cap					
	200 basis points or less		201 to 400 basis points		401 to 600 basis points	
	Over 1 Month or less RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF
5% and under	10.60%	9.00%	9.30%	5.50%	6.70%	2.70%
5.01% to 6.50%	7.30%	5.40%	5.60%	2.70%	3.40%	1.80%
6.51% to 8%	5.20%	3.80%	4.20%	2.00%	2.70%	1.60%
Over 8%	2.40%	2.00%	3.00%	1.60%	2.70%	1.60%

**Net Position (Balance x Risk Weights)**

	Distance from The Lifetime Cap						Total
	200 basis points or less		201 to 400 basis points		401 to 600 basis points		
	Over 1 Month or less RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month RF	1 Month or less RF	Over 1 Month or less RF
Net Position	\$88	\$94	\$197	\$215	\$340	\$236	\$441
							\$441
							\$1,852

## Appendix 2—Draft Reporting Instructions

### General Instructions

#### I. Interest Rate Risk Reporting Requirements

##### A. Schedule 1

Schedule 1 must be completed by those commercial banks and FDIC-supervised savings banks which do not meet all of the following exemption criteria:

- (1) The institution's total assets are less than \$300 million, and
- (2) The bank's primary federal supervisor has assigned the institution a composite CAMEL rating of either "1" or "2"; and
- (3) The sum of:
  - a. 30% of the institution's fixed- and floating-rate loans and securities with contractual maturity or repricing dates between 1 and 5 years, and
  - b. 100% of the institution's fixed- and floating-rate loans and securities with contractual maturity or repricing dates beyond 5 years,
 is less than 30% of the institution's total assets as of the report date.

Exempted institutions may file Schedule 1 on a voluntary basis. Institutions that file Schedule 1 should report "N/A" in Schedule RC-B, Memorandum Item 2; Schedule RC-C, Part I, Memorandum Item 2 on FFIEC 034; Schedule RC-C, Part I, Memorandum Item 3 on FFIEC 031, 032, and 033; and Schedule RC-E, Memorandum Items 5 and 6. FDIC-supervised savings banks which file Schedule 1 should report "N/A" in Schedule RC-J.

All shifts in reporting status, with one exception, are to begin with the March Reports for Condition and Income. Such a shift will take place only if the reporting bank's condition fails to meet the exemption criteria, as previously noted, as of the June reporting date. Banks involved with business combinations (pooling of interests, purchase acquisitions, or reorganizations) will be subject to new reporting requirements, if any, beginning with the first quarterly report date following the effective date of a business combination involving a bank and one or more depository institutions.

#### II. Criteria for Required Completion of Supplemental Schedules 2-4

These schedules are applicable only to banks that answered "yes" to the reporting requirement for Schedule 1. This section identifies which of the supplemental interest rate risk reporting schedules, if any, must be completed based on the reporting bank's level of

mortgage holdings as a percent of total assets as of the report date.

##### A. Schedule 2

If "total adjusted fixed-rate mortgage holdings" divided by total assets (on an unrounded basis) is greater than 20 percent of total assets, then the bank should place an "X" in the box marked "Yes". Otherwise, indicate "No" in Item 1. If the box marked "Yes" is checked, then the bank must complete Schedule 2. Banks completing Schedule 2 should only report the total amount of fixed-rate mortgage holdings on Schedule 1, Items 1(b) and 2(b), in Column A; the distribution of these instruments across Columns B through H is not required.

For purposes of this item, "total adjusted fixed-rate mortgage holdings" equals the sum of the bank's permanent loans secured by first liens on 1-4 family residential mortgages, which have fixed interest rates; and the bank's mortgage-backed pass-through securities not held for trading, which have fixed interest rates less any of those loans held for sale and delivery to secondary market participants such as FNMA or FHLMC under terms of a binding commitment.

##### B. Schedule 3

If "total adjusted adjustable-rate mortgage holdings" divided by total assets (on an unrounded basis) is equal to or greater than 10 percent but less than 25 percent of total assets, then the bank should place an "X" in the box marked "Yes" in Item No. 1. Otherwise, indicate "No" in Item No. 1. If the box marked "Yes" is checked, then the bank must complete Schedule 3. Banks completing Schedule 3 are exempt from completing Schedule 4 and the memoranda section of Schedule 1.

##### C. Schedule 4

If "total adjusted adjustable-rate mortgage holdings" divided by total assets (on an unrounded basis) is greater than or equal to 25 percent of total assets, then the bank should place an "X" in the box marked "Yes" in Item No. 1. Otherwise, indicate "No" in Item No. 1. If the box marked "Yes" is checked, then the bank must complete Schedule 4. Banks completing Schedule 4 are exempt from completing Schedule 3 and the memoranda section of Schedule 1.

For purposes of Schedules 3 and 4, "total adjusted adjustable-rate mortgage holdings" equals the sum of the bank's permanent loans secured by first liens on 1-4 family residential mortgages which have adjustable interest rates and the bank's mortgage pass-through securities not held for trading which

have adjustable interest rates less any of those loans held for sale and delivery to secondary market participants such as FNMA or FHLMC under terms of a binding commitment.

Institutions that are not required to complete the supplemental schedules may elect to do so on a voluntary basis.

#### III. Reporting Instructions—Schedule 1

The information required in Schedule 1 primarily represents the distribution across Columns B through H of maturity and repricing data for selected assets, liabilities and off-balance sheet items that are outstanding as of the report date. These distributed dollar amounts must equal the total dollar amounts reported in Column A. Assets in nonaccrual status are excluded from this schedule. Additionally, a self-reporting section is to be completed by those banks holding particular types and/or concentrations of interest rate sensitive assets and off-balance sheet contracts. This section requests information concerning the carrying value of these items as well as estimates of market value changes for the 200 basis point rising and falling interest rate scenarios. The carrying value of the bank's trading account holdings is requested separately in the self-reported section, along with market value changes given 100 basis point rising and falling interest rate scenarios. Estimates for self-reported items may be obtained from a reliable third party source or from the institution's internal risk measurement system. Schedule 1 also contains a memoranda section for the reporting of adjustable-rate mortgage holdings by reset frequency for those banks with less than 10% of total assets in adjustable-rate mortgages.

#### Definitions

A fixed interest rate is a rate that is specified at the origination of the transaction, is fixed and invariable during the term of the asset or liability, and is known to both the borrower and the lender. Also treated as a fixed interest rate is any rate that changes during the term of the asset or liability on a predetermined basis, with the exact rate of interest over the life of the instrument known with certainty to both the borrower and the lender at origination or when the instrument is acquired.

The remaining maturity is the amount of time remaining from the report date until the final contractual maturity of an asset or liability.

A floating or adjustable rate is a rate that varies, or can vary, in relation to an index, to some other interest rate such as the rate on certain U.S. Government

securities or the bank's "prime rate," or to some other variable criterion the exact value of which cannot be known in advance.

The reset or repricing frequency is how often the contract permits the interest rate on an instrument to be changed (e.g., daily, monthly, quarterly, semiannually, annually) without regard to the length of time between the report date and the date the rate can next change.

The next repricing date is the amount of time remaining from the report date until the instrument's contract permits the rate of interest to change.

#### Distribution of Securities, Loans and Leases, and Other Interest-Bearing Assets

Banks must distribute the carrying value of selected securities, loans and leases and other interest-bearing assets in the specified balance sheet categories of this schedule in accordance with the procedures set forth in the item instructions below.

All permanent loans secured by first liens on 1-4 family residential mortgages and 1-4 family residential mortgage pass-through securities should be reported on the following basis:

- (1) The entire carrying value of each asset with a fixed rate of interest should be reported on the basis of the asset's remaining contractual maturity, and
- (2) The entire carrying value of each asset with a floating or adjustable rate of interest should be reported on the basis of its reset frequency.

The bank's own estimates of expected cash flows associated with these mortgage products should not be used in this schedule. Loans held for sale and delivery to secondary market participants under terms of binding commitments are reported separately in Item No. 2(c) without regard to maturity or repricing.

The carrying value of other debt securities, all other loans and leases, and all other interest-bearing assets should be reported on the following basis:

- (1) Assets which carry a fixed rate of interest should be spread among the Columns according to their remaining maturity (as defined below), and
- (2) Assets which carry a floating or adjustable rate of interest should be reported on the basis of the time remaining until the next repricing date.

#### Distribution of Time Deposits, Non-Maturity Deposits, and All Other Interest-Bearing Liabilities

All time deposits and other interest-bearing nondeposit liabilities should be distributed across Columns B through H

according to remaining contractual maturity for fixed-rate liabilities and according to next repricing date for adjustable-rate liabilities. The maturity and repricing for all non-maturity deposits (DDAs, MMDAs, NOW accounts, and other savings deposits) is determined by bank management based on its own assumptions and experience and must be reported in both rising and falling interest rate scenarios in accordance with the parameters described in the item instructions below.

#### Distribution of Off-Balance Sheet Positions

Institutions are required to distribute selected off-balance sheet contracts that are not held for trading among the time bands (Columns) of Schedule 1. The off-balance sheet items include interest rate forward contracts, interest rate futures contracts, interest rate swaps without embedded options, and commitments to originate, buy, and sell loans and securities. Such commitments should exclude unused lines of credit and commitments to sell 1-4 family mortgage loans that the bank holds for sale and delivery to secondary market participants.

Off-balance sheet contracts should be reported as either amortizing or non-amortizing contracts depending on whether the notional value of the contract amortizes over time.

The selected off-balance sheet items must be reported using two entries to reflect the timing of the cash flows. The notional amounts of the contracts are offsetting: one entry is positive and the other is an offsetting negative entry. This reporting method reflects the way in which the off-balance sheet instruments affect the institution's balance sheet. In general, if the outstanding contract serves to lengthen an asset's maturity (i.e., long futures) then the first entry is negative and the second entry is positive. If the outstanding contract serves to shorten an asset's maturity (i.e., pay-fixed swap) then the first entry is positive and the second entry is negative. Reporting instructions for particular types of off-balance sheet contracts are provided in sections that follow.

Excluded from this section are: (1) Interest rate option contracts, including caps, floors, collars, corridors, and swaptions, and (2) interest rate swaps with embedded options, such as index amortizing swaps. These items are included in the self-reported section below.

#### Self-Reported Items

This self-reported section requests information regarding certain assets and off-balance sheet contracts. Institutions are required to provide estimates of changes in market values for each instrument given both a 200 basis point rise and decline in interest rates. These estimates may be obtained from reliable third party sources or from the institution's internal risk measurement system.

#### Item Instructions

The total amount reported in Column A must equal the sum of Columns B through H.

Item 1, Debt Securities (exclude self-reported items): The sum of Items 1(a) and 1(b), Column A for this item plus the amount of nonaccrual pass-through securities included in Schedule RC-N, Column C, must equal the sum of Schedule RC-B, Items 4(a)(1) through 4(a)(3), Columns A and D.

Fixed-rate debt securities should be reported without regard to their call date unless the security has actually been called. When fixed-rate debt securities have been called, they should be reported on the basis of the time remaining until the call date. Adjustable-rate debt securities should be reported on the basis of their reset frequency without regard to their call date even if the security has actually been called.

Fixed-rate debt securities that the reporting bank has the option to redeem prior to maturity ("put bonds") should be reported on the basis of the time remaining until the earliest "put" date. Adjustable-rate "put bonds" should be reported on the basis of reset frequency without regard to "put" dates.

The information requested in Items 1(c), 1(d), and 1(e) applies to both fixed-rate and adjustable-rate instruments.

Item 1(a), ARM Securities (use Memoranda section below): Report the total carrying value<sup>13</sup> of all adjustable-rate mortgage-backed pass-through certificates, such as those guaranteed by the Government National Mortgage Association (GNMA) and those issued by the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and others (e.g., other depository institutions or insurance companies)

<sup>13</sup> For purposes of this schedule, available-for-sale debt securities are to be reported on the basis of their fair value, while held-to-maturity debt securities are to be reported on the basis of their amortized cost. Therefore, throughout the instructions to this schedule, references to the carrying value should be read as such.

which are included in Schedule RC-B, Items 4(a)(1) through 4(a)(3).

The reporting of these adjustable-rate pass-through securities by reset frequency depends upon the institution's asset concentration level and is requested in the Memoranda Section of this schedule as well as in Schedules 3 and 4.

Item 1(b), Fixed-Rate Mortgage Securities: Report the carrying value of all fixed-rate mortgage-backed pass-through certificates, such as those guaranteed by the Government National Mortgage Association (GNMA) and those issued by the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and others (e.g., other depository institutions or insurance companies) which are included in Schedule RC-B, Items 4(a)(1) through 4(a)(3).

Item 1(c), All Other Amortizing Securities: Report the carrying value of all other debt securities (not reported in Items 1(a) and 1(b) above) which have regularly scheduled principal amortization more frequently than on an annual basis, exclude amortizing securities which require a balloon payment of 25 percent or more of the original principal at maturity. This may include:

(1) U.S. Government agency and corporation obligations reported in Schedule RC-B, Item 2(a) and 2(b).

(2) Securities issued by states and political subdivisions in the U.S. reported in Schedule RC-B, Items 3(a) through 3(c).

(3) Other debt securities reported in Schedule RC-B, Item 5, including home equity loan-backed securities (and the appropriate subitems on the FFIEC 031, 032, and 033 report forms).

Exclude from all other amortizing securities:

(1) All equity securities reported in Schedule RC-B, Items 6(a) through 6(c).

(2) Zero- or low-coupon (3 percent or less) securities (report in Item 1(e) below).

(3) All debt securities which are on nonaccrual status.

(4) All structured notes (include in Item 8 of the self-reported items below).

(5) All "high-risk" mortgage securities (include in Item 6 of the self-reported items below.)

(6) CMO and REMIC holdings. If CMO and REMIC holdings exceed 10% of total assets, they must be included in Items 6 or 7 of the self-reporting section below. For holdings of 10% or less of assets, an institution may elect to report these balances in the non-amortizing section based on bank management's

estimate of the instrument's current average life.

Item 1(d), Non-Amortizing Securities: Report all debt securities with coupons greater than 3 percent that have either:

(1) regularly scheduled principal payments less frequently than on an annual basis, or (2) full repayment of principal at maturity. Also reported in this item are amortizing securities which require a balloon payment of 75 percent or more of the original principal at maturity. Non-amortizing securities may include:

(1) U.S. Treasury securities reported in Schedule RC-B, Item 1.

(2) U.S. Government agency and corporation obligations reported in Schedule RC-B, Items 2(a) and 2(b).

(3) Securities issued by states and political subdivisions in the U.S. reported in Schedule RC-B, Items 3(a) through 3(c).

(4) CMOs and REMICs reported in Schedule RC-B, Items 4(b)(1) through 4(b)(3) if the institution is not required or does not elect to self-report the estimated changes in the market values of these instruments for a 200 basis point increase and decrease in interest rates. Institutions should not report CMO and REMIC holdings in this item if these exceed 10% of total assets. If CMOs and REMIC holdings exceed 10% of total assets, they must be included in the self-reporting section below.

(5) Other debt securities reported in Schedule RC-B, Item 5 (and the appropriate subitems on the FFIEC 031, 032, and 033 report forms).

Exclude from non-amortizing securities:

(1) All equity securities reported in Schedule RC-B, Items 6(a) through 6(c).

(2) Zero- or low-coupon (3 percent or less) securities (report in Item 1(e) below).

(3) All debt securities which are on nonaccrual status.

(4) All structured notes (include in Item 8 of the self-reported items below).

(5) All "high-risk" mortgage securities (include in Item 6 of the self-reported items below).

(6) Non-high-risk mortgage securities that are included in the self-reported items below.

Item 1(e), Zero- or Low-Coupon Securities Report: On the basis of final maturity, all holdings of debt securities with coupon rates of 3 percent or less. Such holdings may include:

(1) U.S. Treasury securities reported in Schedule RC-B, Item 1, including all U.S. Treasury bills issued on a discount basis.

(2) U.S. Government agency and corporation obligations reported in Schedule RC-B, Items 2(a) and 2(b).

(3) Securities issued by states and political subdivisions in the U.S. reported in Schedule RC-B, Items 3(a) through 3(c).

(4) Other debt securities reported in Schedule RC-B, Item 5 (and the appropriate subitems on the FFIEC 031, 032, and 033 report forms).

Exclude from zero- or low-coupon securities:

(1) All equity securities reported in Schedule RC-B, Items 6(a) through 6(c).

(2) All debt securities which are on nonaccrual status.

(3) All structured notes (include in Item 8 of the self-reported items below).

(4) All "high-risk" mortgage securities (include in Item 6 of the self-reported items below).

Item 2, Loans and Leases: Loan amounts should be reported net of unearned income to the extent that they have been reported net of unearned income in Schedule RC-C.

The sum of Items 2(a), 2(b) and 2(c), Column A of this schedule, plus the amount of permanent loans secured by first liens on 1-4 family residential mortgages in nonaccrual status reported in Schedule RC-N, Column C, Memorandum Item 4(c)(2) on FFIEC 033 and 034, and Memorandum Item 3(c)(2) on FFIEC 031 and 032 must equal RC-C, Item 1(c)(2)(a).

Included in Items 2(c), 2(d) and 2(e) is information regarding both fixed- and adjustable-rate instruments.

Item 2(a), ARM Loans (use Memorandum section below): Report the total amount of permanent loans secured by first liens on 1-4 family residential mortgages that are included in RC-C, Item 1(c)(2)(a), which are subject to a floating or adjustable interest rate. Exclude from this item any loans in nonaccrual. Also exclude loans held for sale with firm commitments (report in Item 2(c) below).

The reporting of these items according to reset frequency depends on the institution's asset concentration level and is requested in the Memoranda section of this schedule as well as Schedules 3 and 4.

Item 2(b), Fixed-Rate Mortgage Loans: Report all permanent loans secured by first liens on 1-4 family residential mortgages included in RC-C, Item 1(c)(2)(a) that are subject to a fixed or predetermined interest rate on the basis of time remaining until their final contractual maturity. Exclude any loans in nonaccrual status. Also exclude loans held for sale with firm commitments (report in Item 2(c) below).

Item 2(c), Mortgage Loans Held for Sale with Firm Commitments: Report in this item the total amount of all outstanding loans secured by first liens

on 1-4 family residential mortgages which are held by the bank for sale and delivery to a secondary market participant under the terms of a binding commitment.

Item 2(d), Other Amortizing Loans: Report all other loans and leases with regularly scheduled principal amortization (more frequently than annually), which are not included above in Items 2(a), 2(b) and 2(c).

Include in this item all revolving lines of credit and credit card receivables. The reporting of adjustable-rate revolving credit should be according to the next repricing date, while fixed-rate revolving credit should be reported based on management determination of the likely repayment horizon. Relevant considerations in assigning a repayment period should include, at a minimum: (1) Required minimum monthly payments, (2) the effect of "payment holidays," (3) historical repayment patterns, (4) the effect of credit card accounts used strictly for transactions purposes, and (5) the effect of pricing incentives such as tiered rates linked to the amount outstanding.

Exclude amortizing loans which require a balloon payment of 75 percent or more of the original principal at maturity. For this schedule, such loans are considered to be non-amortizing and are included in Item 2(d), "All other loans", below. Also exclude any loans in nonaccrual status.

Item 2(e), All Other Loans: Report all other loans and leases with no scheduled principal amortization or with principal amortization scheduled annually or less frequently that are not included above in Items 2(a) through 2(c). Also include loans which require a balloon payment of 25 percent or more of the original principal at maturity. Exclude any loans in nonaccrual status.

Item 3, All Other Interest-Bearing Assets: Report all interest-earning assets, other than loans and securities. The sum of the amount reported in Column A for this item must equal the sum of Schedule RC, Item 1(b), "Interest-bearing balances due from depository institutions," Item 3(a), "Federal funds sold," and Item 3(b) "Securities purchased under agreements to resell," less any amount reported in nonaccrual status.

Item 4, Liabilities: For purposes of this schedule, report all fixed-rate time deposits and interest-bearing nondeposit liabilities on the basis of their remaining maturity, and adjustable-rate time deposits and nondeposit interest-bearing liabilities on the basis of their next repricing date. Non-maturity deposits include: (1) Commercial demand deposit accounts;

(2) money market deposit accounts (MMDAs); and (3) NOW accounts, all other savings deposits, and all other retail demand deposit accounts. The distribution of these non-maturity deposits across the time bands will be based on management determination within defined constraints.

The term "commercial" for purposes of this schedule refers to all demand deposit accounts in which the beneficial interest is held by a depositor that is not an individual or sole proprietorship. Such accounts include, but are not limited to, demand deposits held by: corporations, partnerships, and other associations; the U.S. and foreign governments; states and political subdivision in the U.S.; U.S. and foreign banks. Only those commercial accounts which are noninterest-bearing demand deposit accounts are differentiated for reporting purposes; all other commercial deposits (i.e., NOW accounts, MMDAs and other savings deposits) are not differentiated for purposes of this schedule.

The term "retail" for purposes of this report refers to all demand deposit accounts in which the beneficial interest is held by a depositor that is an individual or sole proprietorship.

Institutions must report all non-maturity deposits across the time bands each quarter according to management's own assumptions and experience in both a rising rate and a declining rate scenario in accordance with the following parameters:

(1) Commercial Demand Deposit Accounts: A minimum of 50 percent of an institution's commercial demand deposit accounts is required to be reported in Column B, "Up to 3 months." The remaining balances can be distributed across Columns B through E ("Up to 3 months," "Greater than 3 months-1 year," "1-3 years," and "3-5 years") with a maximum of 20 percent of the total balance in Column E, "3-5 years."

(2) MMDA Accounts: These deposit accounts may be distributed across Columns B through D ("Up to 3 months," "Greater than 3 months-1 year," and "1-3 years") with a maximum of 50 percent reported in the Column D, "1-3 years."

(3) NOW Accounts, Other Savings Deposits and Retail Demand Deposit Accounts: These deposit accounts may be distributed across Columns B through F ("Up to 3 months," "Greater than 3 months-1 year," "1-3 years," "3-5 years," and "5-10 years") under the following constraints: a maximum of 20 percent in Column F, "5-10 years," and a maximum of 20 percent combined

in Columns E and F, "3-5 years" and "5-10 years."

Item 4(a), Time Deposits: Report the total amount of all time deposits, regardless of amount. This item includes both time certificates of deposit and open-account time deposits. The amount in Column A must equal the sum of Schedule RC-E, Memorandum Items 2(b), 2(c), and 2(d). For purposes of this schedule, time deposits with "step up" features should be reported on the basis of remaining maturity.

Item 4(b), All Other Interest-Bearing Nondeposit Liabilities: The amount reported in this item must equal the sum of the following items from Schedule RC: Item 14(a), "Federal funds purchased;" Item 14(b), "Securities sold under agreements to repurchase;" Item 15(a), "Demand notes issued to the U.S. Treasury;" Item 16(a), "Other borrowed money with original maturity of one year or less;" Item 16(b), "Other borrowed money with original maturity of more than one year;" Item 17, "Mortgage indebtedness and obligations under capitalized leases;" Item 19, "Subordinated notes and debentures;" and Item 22, "Limited-life preferred stock and related surplus."

Item 4(c), Commercial Demand Deposits—Rising Rates: Report the total amount of all demand deposit accounts (included in Schedule RC-E, Columns A and B) representing funds in which any beneficial interest is held by a depositor which is not an individual or sole proprietorship.

Item 4(d), MMDAs—Rising Rates: Report the total amount of all MMDAs as reported on Schedule RC-E, Memorandum Item 2(a)(1).

Item 4(e), NOW Accounts, Other Savings Deposits, and Other Demand Deposits—Rising Rates: Report the total amount of all NOW accounts that are included in Schedule RC-E, Memorandum Item 3, all other savings deposits as reported on Schedule RC-E, Memorandum Item 2(a)(2), and all demand deposits representing funds in which any beneficial interest is held by an individual or sole proprietorship included in Schedule RC-E, Item 1, Columns A and B.

Item 4(f), Commercial Demand Deposits—Declining Rates: Report the total amount of all demand deposit accounts (included in Schedule RC-E, Columns A and B) representing funds in which any beneficial interest is held by a depositor which is not an individual or sole proprietorship.

Item 4(g), MMDAs—Declining Rates: Report the total amount of all MMDAs as reported on Schedule RC-E, Memorandum Item 2(a)(1).

Item 4(h), NOW Accounts, Other Savings Deposits, and Other Demand Deposits—Declining Rates: Report in this item the total amount of all NOW accounts that are included in Schedule RC-E, Memorandum Item 3, all other savings deposits as reported on Schedule RC-E, Memorandum Item 2(a)(2), and all demand deposits representing funds in which any beneficial interest is held by an individual or sole proprietorship included in Schedule RC-E, Item 1, Columns A and B.

Item 5, Off-Balance Sheet Positions: In this section, respondents must report selected off-balance sheet contracts using two entries. Each contract has two offsetting entries (one is positive, one is negative) which reflect the timing of the cash flows. This reporting method reflects the way in which the off-balance sheet instruments affect the institution's economic value.

Item 5(a), Non-Amortizing Contracts: Report the notional amounts of the following contracts that are not held for trading: (1) Futures contracts whose predominant risk characteristic is interest rate risk as reported in Schedule RC-L, Item 14(a), "Futures contracts, Column A, "Interest Rate Contracts;" (2) forward contracts whose predominant risk characteristic is interest rate risk reported in Schedule RC-L, Item 14(b), "Forward contracts," Column A, "Interest Rate Contracts;" and (3) interest rate swaps, excluding basis swaps, reported in Schedule RC-L, Item 14(e), "Swaps," Column A, "Interest Rate Contracts." Also included in this item are commitments to originate, buy, and sell non-amortizing loans and securities. Exclude all unused lines of credit.

Exclude from this item all exchange-traded option contracts and over-the-counter option contracts and any swaps with embedded options. Swaptions, i.e., options to enter into a swap contract, and contracts known as caps, floors, collars and corridors should be reported as options and are included in Item 11 of the self-reported section below. Also exclude all contracts held for trading (report in Item 12 of the self-reporting section below.)

Futures contracts and interest rate forwards must be reported in Columns B through H on the following basis: The first entry corresponds to the settlement date of the contract, and the offsetting entry corresponds to the settlement date plus the maturity of the instrument underlying the contract.

Long positions in futures contracts and forward rate agreements represent commitments to purchase specified financial instruments at a specified

future date at a specified price or yield. For outstanding long positions, the first entry corresponding to the contract settlement date must be negative. The offsetting positive entry must be reported according to the settlement date plus the maturity of the instrument underlying the contract.

Short positions in futures contracts and forward rate agreements represent commitments to sell specified financial instruments at a specified future date at a specified price or yield. For an outstanding short position, the first entry corresponding to the contract settlement date must be positive. The offsetting negative entry must be reported according to the settlement date plus the maturity of the instrument underlying the contract.

Interest rate swaps must be reported in Columns B through H on the following basis: The first entry corresponds to the next repricing date of the adjustable-rate coupon, and the offsetting entry corresponds to the maturity of the swap.

For swaps in which the reporting bank pays an adjustable rate and receives a fixed rate, the first entry corresponding to the next repricing date of the floating rate coupon must be negative. The offsetting positive entry must be reported according to the maturity of the swap.

For swaps in which the reporting bank pays a fixed rate and receives an adjustable rate, the first entry corresponding to the next repricing date of the floating rate coupon must be positive. The offsetting negative entry must be reported according to the maturity of the swap.

Securitized credit cards where the credit card holders pay a fixed rate and the security has an adjustable-rate coupon are treated similarly to interest rate swaps. Like swaps, the first entry corresponds to the repricing date of the adjustable-rate coupon that is paid to the holder of the security. However, the offsetting entry in these transactions corresponds to the expected maturity of the security. Exclude securitized credit cards where the cards and the security are both fixed rate or both variable rate.

Firm commitments to originate, buy or sell non-amortizing loans or securities must be reported in Columns B through H on the following basis: The first entry corresponds to the settlement date of the commitment contract. The offsetting entry corresponds to the settlement date plus the maturity of the underlying instrument if the underlying instrument carries a fixed rate, or to the settlement date plus the time until the next repricing date of the underlying

instrument if the underlying instrument carries an adjustable rate.

For commitments to originate or buy non-amortizing loans or securities, the first entry corresponding to the contract settlement date must be negative. The offsetting positive entry must be reported according to the settlement date plus the maturity of the underlying instrument if the underlying instrument carries a fixed rate, or to the settlement date plus the time until the next repricing date if the underlying instrument carries an adjustable rate.

For commitments to sell non-amortizing loans or securities, the first entry corresponding to the contract settlement date must be positive. The offsetting negative entry must be reported according to the settlement date plus the maturity of the underlying instrument if the underlying instrument carries a fixed rate, or to the settlement date plus the time until the next repricing date of the underlying instrument if the underlying instrument carries an adjustable rate.

Item 5(b) Amortizing Contracts: Report all outstanding commitments to originate, buy and sell mortgages and other amortizing loans and securities. Include only those commitments for which interest rates have already been locked in, either on a fixed-rate or adjustable-rate basis. Also include all other interest rate contracts whose notional value amortizes over time.

Commitments to originate, buy or sell mortgages and other amortizing loans or securities must be reported in Columns B through H on the following basis: The first entry corresponds to the settlement date of the commitment contract. The offsetting entry corresponds to the settlement date plus the maturity of the underlying instrument if the underlying instrument carries a fixed rate, or to the settlement date plus the time until the next repricing date of the underlying instrument if the underlying instrument carries an adjustable rate. All commitments should be reported on a gross basis, using a zero percent fallout factor.

For commitments to originate or buy mortgages and other amortizing loans or securities, the first entry corresponding to the contract settlement date must be negative. The offsetting positive entry must be reported according to the settlement date plus the maturity of the underlying instrument if the underlying instrument carries a fixed rate, or to the settlement date plus the time until the next repricing date of the underlying instrument if the underlying instrument carries an adjustable rate.

For commitments to sell mortgages and other amortizing loans or securities,



the first entry corresponding to the contract settlement date must be positive. The offsetting negative entry must be reported according to the settlement date plus the maturity if the underlying instruments carry a fixed rate, or to the settlement date plus the time until the next repricing date if the underlying instruments carry an adjustable rate.

#### Self-Reported Items

Maturity and repricing information is not requested in this section. However, banks must report the carrying value of on-balance sheet instruments in Column A and the market value of all instruments in Column B. In addition banks must report in Columns C and D, respectively, each instrument's estimated change in market value given a 200 basis point instantaneous and parallel rise and decline in interest rates. These estimates may be obtained from a reliable third party source or from the institution's internal risk measurement system. Item 7 in this section requests estimated market value changes of the institution's trading account holdings given 100 basis point instantaneous and parallel rise and decline in interest rates.

Item 6, High-Risk Mortgage Securities: Report all high-risk mortgage securities included in Schedule RC-B, Memorandum Item 8. This item includes all mortgage derivative products (stripped mortgage-backed securities, CMOs, REMICs, and CMO and REMIC residuals) that meet the definition of a high-risk mortgage security under the FFIEC's Supervisory Policy Statement on Securities Activities.

Item 7, Nonhigh-Risk Mortgage Securities: Non-high risk mortgage securities are those mortgage derivative products which did not meet the definition of a high-risk mortgage security under the FFIEC's Supervisory Policy Statement on Securities Activities as of their most recent testing date. Institutions with greater than 10% of total assets in nonhigh-risk mortgage derivative securities as of the report date must report information about such instruments in this item. Institutions that are not required to complete this item may elect to do so on a voluntary basis.

Item 8, Structured Notes: Report all structured notes included in Schedule RC-B, Memorandum Item 9. Structured notes are debt securities whose cash flow characteristics are dependent upon one or more indices and/or have embedded forwards or options. Included below is a list of common structures. For further information

concerning these products, refer to the instructions for Schedule RC-B, Memorandum Item 9.

- (1) Step-up Bonds
- (2) Index Amortizing Notes (IANs)
- (3) Dual Index Notes
- (4) De-leveraged Bonds
- (5) Range Bonds
- (6) Inverse Floaters

Item 9, Mortgage Servicing Rights: Report the unamortized portion of excess residential mortgage servicing fees receivable included in Schedule RC-F, Item 3. Also report the unamortized amount (carrying value) of mortgage servicing rights included in Schedule RC-M, Item 7(a) on FFIEC 034; Item 5(a) on FFIEC 033; and Item 6(a) on FFIEC 031 and 032.

Item 10, Interest Rate Swaps with Embedded Options: Report all interest rate swaps with embedded options. Exclude all interest rate swaps held for trading.

Item 11, Interest Rate Options: Report interest rate option contracts not held in trading accounts, including options to purchase/sell interest-bearing financial instruments and whose predominant risk characteristic is interest rate risk as well as contracts known as caps, floors, collars, corridors and swaptions. Include all exchange-traded and over-the-counter interest rate contracts as reported on Schedule RC-L, Items 14(c), Column A, and Item 14(d), Column A.

Item 12, Trading Account: Report in this item the carrying value of all trading account assets, liabilities and off-balance sheet contracts. Also report the market value changes of these holdings given both a 100 basis point instantaneous and parallel rise and decline in interest rates. The carrying value of these items are included in Schedule RC, Items 5 and 15(b), and Schedule RC-L, Item 15, Column A on FFIEC 033 and 034; and Schedule RC-D, Items 12 and 15, and Schedule RC-L, Item 15, Column A on FFIEC 031 and 032.

#### Memoranda Section

This memoranda section is to be completed only by those banks whose ARM holdings are less than 10% of total assets as of the report date and have checked an "X" in the "No" boxes on Item 1 of both Schedules 3 and 4.

Memoranda Items 1-4 divide total ARM securities and loans included in Schedule 1, Items 1(a) and 2(a) above into two categories, those adjustable-rate instruments whose rates are greater than or equal to 200 basis points (bp) away from their lifetime interest rate cap, and those whose rates are less than 200 bp from their lifetime interest rate cap. The

lifetime interest rate cap is the upper limit on the mortgage rate that can be charged over the life of a loan. Report in Memorandum Items 1 and 2 the entire amount of those instruments whose rates are greater than or equal to 200 bp away from their lifetime interest rate cap according to the frequency with which the interest rate on the mortgage may contractually reset. Report in Memorandum Items 3 and 4 the total amount of adjustable ARM securities and loans whose rates are less than 200 bp from their lifetime interest rate cap.

With respect to the relationship of this memoranda section to the main body of this schedule, the sum of Memorandum Items 1, Columns A through C, and Memorandum Item 3 must equal Schedule 1, Item 1(a).

The sum of Memoranda Item 2, Columns A through C, and Memorandum Item 4 must equal Schedule 1, Item 2(a).

#### Memoranda

Item 1, ARM Securities: Report the carrying value of all adjustable-rate, mortgage-backed pass-through securities on the basis of their reset frequency. Exclude any securities in nonaccrual status. Also exclude those pass-through securities whose rates are less than 200 bp of their lifetime interest rate cap. For this memoranda section, such securities are to be reported in Memorandum Item 3.

Column A, 0 to 6 Months: Report the dollar amount of the bank's adjustable-rate pass-through securities whose rates may reset semiannually or more frequently (e.g., semiannually, quarterly, monthly, weekly, daily).

Column B, 6 Months to 1 Year: Report the dollar amount of the bank's adjustable-rate, pass-through securities whose rates reset annually or more frequently, but less frequently than semiannually.

Column C, Greater than 1 Year: Report the dollar amount of the bank's adjustable-rate, pass-through securities whose rates reset less frequently than annually.

Item 2, ARM Loans: Report all adjustable-rate, permanent loans secured by first liens on 1-4 family residential mortgages on the basis of the reset frequency. Exclude all loans in nonaccrual status. Also exclude those loans whose rates are less than 200 bp from their lifetime interest rate cap. For this memoranda section, such loans are to be reported in Memorandum Item 4.

Column A, 0 to 6 Months: Report the dollar amount of the bank's adjustable-rate, permanent loans secured by first liens on 1-4 family residential mortgages whose rates reset

semiannually or more frequently (e.g. semiannually, quarterly, monthly, weekly, daily.)

Column B, 6 Months to 1 Year: Report the dollar amount of the bank's adjustable-rate, permanent loans secured by first liens on 1-4 family residential mortgages whose rates reset annually or more frequently, but less frequently than semiannually.

Column C, Greater than 1 Year: Report the dollar amount of the bank's adjustable-rate, permanent loans secured by 1-4 family residential mortgages whose rates reset less frequently than annually.

#### Near Lifetime Cap

Item 3, ARM Securities: Report the total amount of the bank's adjustable-rate, pass-through securities whose rates are less than 200 bp from their lifetime interest rate cap.

Item 4, ARM Loans: Report the total amount of the bank's adjustable-rate, permanent loans secured by 1-4 family residential mortgages whose rates are less than 200 bp from their lifetime interest rate cap.

#### IV. Reporting Instructions—Schedule 2 General Instructions

Institutions which complete Schedule 2 should only report the total amount of fixed-rate mortgage holdings on Schedule 1, Items 1(b) and 2(b), Column A. The distribution of these instruments across Columns B through H is not required.

The information required in this supplemental schedule represents the distribution of individual fixed-rate mortgages holding balances by maturity and coupon rate. In the distribution of Schedule 2 items, the entire carrying value of all fixed-rate mortgage holdings should be reported on the basis of final maturities. The bank's own estimate of expected cash flows is not reported on this schedule.

Items 2 through 9 of Schedule 2 list eight coupon rate ranges, beginning with a rate of less than or equal to 6.75% proceeding in 50 bp increments, to a rate of greater than 9.75%. Columns A through D list four time ranges, which represent the time remaining from the report date until the final maturity of the instrument: 5 years or less, over 5 years through 10 years, over 10 years through 20 years, and greater than 20 years. Respondents must report selected assets by the coupon rate<sup>14</sup> in each of the relevant time bands.

<sup>14</sup>The term "coupon rate" is used in this schedule as a generic term, but for loans and pass-through securities it has two distinct definitions. Whereas loans are to be reported according to each

#### Examples

An 8%, fixed-rate, residential mortgage loan which matures in 15 years would be reported in Item 5, Column C.

An 8.5%, fixed-rate, mortgage pass-through security which matures in three years would be reported in Item 7, Column A. Note that 50 bp added to the 8.5% rate results in a 9% estimated weighted average coupon rate of the underlying collateral.

For purposes of this supplemental schedule the following definitions apply:

A fixed interest rate is a rate that is specified at the origination of the transaction, is fixed and invariable during the term of the loan or security, and is known to both the borrower and the lender. Also treated as a fixed interest rate is a predetermined interest rate which is a rate that changes during the term of the loan or security on a predetermined basis, with the exact rate of interest over the life of the instrument known with certainty to both the borrower and the lender at loan origination or when the debt security is acquired.

Remaining maturity is the amount of time remaining from the report date until the final contractual maturity of a loan or debt security.

The carrying value of a held-to-maturity pass-through security is its amortized cost, while the carrying value of an available-for-sale pass-through security is its fair value.

All loans are to be reported net of unearned income to the extent that the loans have been reported net of unearned income in Schedule RC-C, Item 1(c)(2)(a).

Include as fixed interest rate residential mortgage holdings the following instruments:

(1) All permanent loans secured by first liens on 1-4 family residential mortgages included in Schedule RC-C, Item 1(c)(2)(a), that have fixed interest rates regardless of whether they are current or are reported as "past due and still accruing" in Schedule RC-N, Columns A and B.

(2) The carrying value of all pass-through securities which have fixed interest rates and are included in

individual loan's coupon or stated interest rate, pass-through securities are to be reported according to the weighted average coupon (WAC) of the underlying collateral. If this rate is not known, it should be estimated by adding 50 bp to the rate the bank receives on each pass-through certificate. The 50 bp represents the deduction of servicing fees and any applicable guarantee fees. As a consequence of these fees, the pass-through rate is lower than the WAC of the underlying of mortgages. Therefore, to estimate the WAC of the mortgage pool, the fees should be added back to the pass-through rate.

Schedule RC-B, Items 4(a)(1) through 4(a)(3), Columns A and D.

Exclude from this schedule

(1) Fixed-rate residential mortgage loans held for sale and delivery to secondary market participants, such as FNMA and FHLMC, under terms of a binding commitment.

(2) Fixed-rate residential mortgage holdings that are on nonaccrual status.

(3) All collateralized mortgage obligations (CMOs), real estate mortgage investment conduits (REMICs), and stripped mortgage-backed securities.

(4) All pass-through securities held for trading.

#### Column Instructions

Distribute the carrying value of selected assets in accordance with the procedures described for Columns A through D below.

Report in Column A the entire carrying value of the bank's fixed-rate residential mortgage holdings with remaining maturities of 5 years or less.

Report in Column B the entire carrying value of the bank's fixed-rate residential mortgage holdings with remaining maturities of over 5 years through 10 years.

Report in Column C the entire carrying value of the bank's fixed-rate residential mortgage holdings with remaining maturities of over 10 years through 20 years.

Report in Column D the entire carrying value of the bank's fixed-rate residential mortgage holdings with remaining maturities of over 20 years.

#### Item Instructions

Item 1: Test for determining whether Schedule 2 should be completed. Either repeat the instruction on page 1 of the General Instructions or cross-reference it. In Items 2 through 9, distribute, in accordance with Column instructions, the carrying value of the bank's fixed-rate residential mortgage holdings.

Item 2: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of less than or equal to 6.75%.

Item 3: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of 6.76% through 7.25%.

Item 4: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of 7.26% through 7.75%.

Item 5: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of 7.76% through 8.25%.

Item 6: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of 8.26% through 8.75%.

Item 7: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of 8.76% through 9.25%.

Item 8: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of 9.26% through 9.75%.

Item 9: Report the bank's fixed-rate residential mortgage holdings with a coupon rate of greater than or equal to 9.76%.

#### V. Reporting Instructions—Schedule 3 General Instructions

This supplemental schedule primarily requests information related to the interest rate sensitivity of adjustable-rate mortgage (ARM) holdings. The information required in this supplemental schedule represents the categorization of the reporting bank's ARM holdings according to the distinct characteristics of each loan or security. The defining ARM characteristics requested for this schedule include:

(1) Reset frequency. The reset frequency is how often the contract permits the interest rate on a loan to be changed (e.g., daily, monthly, quarterly, semiannually, annually) without regard to the length of time between the report date and the date the rate can next change.

(2) Lifetime interest rate cap. The lifetime cap is the upper limit on the mortgage rate that can be charged over the life of a loan. This lifetime loan cap is expressed in terms of the initial rate. For example, if the initial mortgage rate is 7% and the lifetime cap is 5%, the maximum interest rate that the bank can charge over the life of the loan is 12%.

(3) Periodic cap. A periodic cap limits the amount that the interest rate may increase at the reset (repricing) date. The periodic cap is expressed in basis points (bp). For example, the bank owns a 7% adjustable-rate mortgage loan. If the periodic cap is 100 bp, then the maximum rate the bank can charge at the next reset date is 8%. If the indexing rate rose by 150 bp, making the fully indexed mortgage rate 8.5%, the bank could only charge 8% at the next reset date.

Schedule 3, Columns A through G, list three reset frequency Columns which are divided by the presence of a periodic cap, and, in the over "6 months through 1 year" Column only, by the size of the periodic cap. Items 2 through 5 list four basis point ranges for how far the ARM's current rate is from the instrument's lifetime interest rate cap. In terms of ARM pass-through securities, the information required pertains to the relationship between the current interest rates and caps of the underlying mortgages. If the loans in the mortgage pool are not uniform in terms of periodic caps and lifetime caps, the weighted cap information is required.

In the distribution of Schedule 3 items, the entire carrying value of all ARM holdings should be reported on the basis of the reset frequency.

#### Examples

An adjustable-rate permanent loan secured by a first lien on a 1-4 family residence whose current rate is 7.5% and that has a lifetime cap of 12% and a periodic cap of 200 bp which reprices annually would be reported to Item 4, Column E.

An adjustable-rate pass-through security whose current coupon is 8% and has a lifetime cap of 10.5% and a periodic cap of 100 bp which reprices semiannually would be reported to Item 3, Column B.

For purposes of this supplemental schedule the following definitions apply:

A floating or adjustable rate is a rate that varies, or can vary, in relation to an index, to some other interest rate such as the rate on certain U.S. Government securities or the bank's "prime rate," or to some other variable criterion the exact value of which cannot be known in advance. Therefore, the exact rate the loan or security carries at any subsequent time cannot be known at the time of origination or acquisition.

All loans are to be reported net of unearned income to the extent that the loans have been reported net of unearned income on RC-C, Item 1(c)(2)(a).

Include as adjustable-rate residential mortgage holdings the following instruments:

(1) All permanent loans secured by first liens on 1-4 family residential mortgages included in Schedule RC-C, Item 1(c)(2)(a), that have adjustable interest rates, regardless of whether they are current or are reported as "past due and still accruing" in Schedule RC-N Columns A and B.

(2) The carrying values<sup>15</sup> of all pass-through securities which have adjustable interest rates and are included in RC-B, Items 4(a)(1) through 4(a)(3), Columns A and D.

#### Exclude from this schedule

(1) Adjustable-rate residential mortgage loans held for sale and delivery to secondary market participants such as FNMA and FHLMC under terms of a binding commitment.

(2) All adjustable-rate mortgage holdings that are on nonaccrual status.

<sup>15</sup> For purposes of this schedule, available-for-sale debt securities are to be reported on the basis of their fair value, while held-to-maturity debt securities are to be reported on the basis of their amortized cost. Therefore, throughout the instructions to this schedule, references to the carrying value should be read as such.

(3) All collateralized mortgage obligations (CMOs) and real estate mortgage investment conduits (REMICs), and stripped mortgage-backed securities.

(4) All pass-through securities held for trading.

#### Column Instructions

Distribute the carrying value of selected assets in accordance with the procedures described for Columns A through G below.

Report in Column A the carrying value of the bank's ARM holdings which reprice in 6 months or less and have no periodic cap.

Report in Column B the carrying value of the bank's ARM holdings which reprice in 6 months or less and have a periodic cap.

Report in Column C the carrying value of the bank's ARM holdings which reprice over 6 months through 1 year and have no periodic cap.

Report in Column D the carrying value of the bank's ARM holdings which reprice over 6 months through 1 year and have a periodic cap equal to or less than 150 bp.

Report in Column E the carrying value of the bank's ARM holdings which reprice over 6 months through 1 year and have a periodic cap greater than 150 bp.

Report in Column F the carrying value of the bank's ARM holdings which reprice over 1 year and have no periodic cap.

Report in Column G the carrying value of the bank's ARM holdings which reprice over 1 year and have a periodic cap.

#### Item Instructions

In Items 2 through 5, distribute, in accordance with column instructions, the carrying value of the bank's ARM holdings.

Item 1: Test for determining whether Schedule 3 should be completed. Either repeat the instruction on page 1 of the General Instructions or cross-reference it.

Item 2: Report the bank's ARM holdings that are within 200 bp of their lifetime cap.

Item 3: Report the bank's ARM holdings that are 201-400 bp from their lifetime cap.

Item 4: Report the bank's ARM holdings that are 401-600 bp from their lifetime cap.

Item 5: Report the bank's ARM holdings that are greater than 600 bp from their lifetime cap.

### VIII. Reporting Instructions—Schedule 4 General Instructions

This supplemental schedule primarily requests information related to the interest rate sensitivity of adjustable-rate mortgage (ARM) holdings. The information required in this supplemental schedule represents the categorization of the reporting bank's ARMs according to the distinct characteristics of each loan or security. The characteristics of an ARM include:

(1) Underlying Index. The underlying index of an ARM represents the base or reference point for calculating the mortgage rate of an ARM loan. There are two main categories of indices: (1) those based on a current market index, and (2) those derived from a lagging market index. A current market index is one that adjusts quickly to changes in market interest rates. Examples include rates on Treasury securities, and the London Interbank Offered Rate (LIBOR). A lagging market index is one that adjusts to changes in market interest rates more slowly than the —current market indexes— such as rates on Treasury securities, the London Interbank Offered Rate (LIBOR), etc. Examples of lagging market indexes are the various published FHLB cost-of-funds indexes and the National Average Contract Rate for the Purchase of Previously Occupied Homes.

(2) Lifetime Interest Rate Cap. The lifetime cap is the upper limit on the mortgage rate that can be charged over the life of a loan. This lifetime loan cap is expressed in terms of the initial rate. For example, if the initial mortgage rate is 7% and the lifetime cap is 5%, the maximum interest rate that the bank can charge over the life of the loan is 12%.

(3) Periodic Cap. A periodic cap limits the amount that the interest rate may increase or decrease at the reset (repricing) date. The periodic cap is expressed in basis points (bp). For example, the bank owns a 7% adjustable-rate mortgage loan. If the periodic cap is 100 bp, then the maximum rate the bank can charge at the next reset date is 8%. Even if the indexing rate rose by 150 bp, making the fully indexed mortgage rate 8.5%, the bank could only charge 8% at the next reset date.

(4) Reset Frequency. The reset or repricing frequency is how often the contract permits the interest rate on a loan to be changed (e.g., daily, monthly, quarterly, semiannually, annually) without regard to the length of time between the report date and the date the rate can next change.

Columns A through I on Schedule 4 list the two major indices, current and

lagging, each of which is divided by reset frequencies. The current market index columns are further divided by the presence of a periodic cap, and, in the —Over 6 months through 1 year— columns only, by the size of the periodic cap. Items 2 through 9 cover four distance groups, in terms of basis point ranges, of current ARM rates in relation to the instrument's lifetime interest rate cap. For each distance group, both the ARM balances and the associated weighted average coupon (WAC) rates must be reported. The weighted average coupon rate for this schedule is determined by multiplying the balance of each ARM loan by the applicable annual interest rate (i.e., the annualized rate in effect for the asset as of the report date) and by dividing the sum of all such calculated amounts by the total carrying value of the category. The WAC required for ARM securities in this schedule is that of the underlying mortgages, which should be estimated by adding 75 bp to the bank's pass-through rate. The 75 bp represents the deduction of servicing fees and any applicable guarantee fees. As a consequence of these fees, the coupon rate of the pass-through is lower than that of the WAC of the underlying mortgages. Therefore, to estimate the WAC of the mortgage pool, the fees should be added back to the coupon rate.

#### Examples

An adjustable-rate permanent loan secured by a first lien on a 1–4 family residence repricing quarterly whose current rate is 7.25% and has a lifetime cap of 10%, no periodic cap, and based on the COFI index would be reported in Items 4 and 5, Column I.

An ARM pass-through security, repricing annually whose current coupon is 7.75% and has a lifetime cap of 14.25%, periodic cap of 200 bp, and based on the Treasury index would be reported in Items 6a and 7, Column E. Note the WAC of the underlying mortgages in this case is estimated to be 8.5%, which is the pass-through rate of 7.75% plus 75 bp.

For purposes of this supplemental schedule the following definitions apply:

A floating or adjustable rate is a rate that varies, or can vary, in relation to an index, to some other interest rate such as the rate on certain U.S. Government securities or the bank's "prime rate," or to some other variable criterion the exact value of which cannot be known in advance. Therefore, the exact rate the loan or security carries at any subsequent time cannot be known at the time of origination or acquisition.

All loans are to be reported net of unearned income to the extent that the loans have been reported net of unearned income on RC-C, Item 1(c)(2)(a).

Adjustable-rate residential mortgage loans that are held by the bank for sale and delivery to a secondary market participant under the terms of a binding contract should be reported according to their repricing frequency regardless of the delivery date specified in the commitment.

Include as adjustable-rate residential mortgage holdings the following instruments:

(1) All permanent loans secured by first liens on 1–4 family residential mortgages included in Schedule RC-C, Item 1(c)(2)(a) that have adjustable interest rates, regardless of whether they are current or are reported as "past due and still accruing" in Schedule RC-N, Columns A and B.

(2) The carrying values<sup>16</sup> of all pass-through securities which have adjustable interest rates and are included in RC-B, Items 4(a)(1) through 4(a)(3), Columns A and D.

Exclude from this schedule:

(1) All adjustable-rate mortgage holdings that are on nonaccrual status.

(2) All collateralized mortgage obligations (CMOs) and real estate mortgage investment conduits.

#### Column Instructions

Distribute the balance of selected assets in accordance with the procedures described for Columns A through I below.

Report in Column A the balance of the bank's ARM holdings which are based on the current market index, reprice 6 months or less, and have no periodic cap.

Report in Column B the balance of the bank's ARM holdings which are based on the current market index, reprice 6 months or less, and have a periodic cap.

Report in Column C the balance of the bank's ARM holdings which are based on the current market index, reprice, over 6 months through 1 year, and have no periodic cap.

Report in Column D the balance of the bank's ARM holdings which are based on the current market index, reprice over 6 months through 1 year, and have a periodic cap equal to or less than 150 bp.

Report in Column E the balance of the bank's ARM holdings which are based

<sup>16</sup> For purposes of this schedule, available-for-sale debt securities are to be reported on the basis of their fair value, while held-to-maturity debt securities are to be reported on the basis of their amortized cost. Therefore, throughout the instructions to this schedule, references to the carrying value should be read as such.

on the current market index, reprice over 6 months through 1 year, and have a periodic cap greater than 150 bp.

Report in Column F the balance of the bank's ARM holdings which are based on the current market index, reprice over 1 year, and have no periodic cap.

Report in Column G the balance of the bank's ARM holdings which are based on the current market index, reprice over 1 year, and have a periodic cap.

Report in Column H the balance of the bank's ARM holdings which are based on the lagging market index and reprice 1 month or less.

Report in Column I the balance of the bank's ARM holdings which are based on the lagging market index and reprice over 1 month.

#### Item Instructions

In Items 2 through 9, distribute, in accordance with column instructions, the carrying value as well as the weighted average coupon rate of the bank's ARM holdings.

Items 2 and 3: Report the bank's ARM holdings which are within 200 bp of their lifetime cap.

Items 4 and 5: Report the bank's ARM holdings which are 201–400 bp from their lifetime cap.

Items 6 and 7: Report the bank's ARM holdings which are 401–600 bp from their lifetime cap.

Items 8 and 9: Report the bank's ARM holdings which are greater than 600 bp from their lifetime cap.

#### Appendix 3—Risk Weight Tables

This appendix contains the risk weights that would be used in the proposed supervisory model. Table 1 provides the risk weights used for the baseline module and reporting Schedule 1. Table 2 provides the risk weights used for the fixed-rate mortgage supplemental module and Schedule 2 while Table 3 provides the risk weights used for adjustable-rate mortgages reported in Schedule 3. Table 4 provides the risk weights used for adjustable-rate mortgages reported in Schedule 4.

**TABLE 2**  
**FIXED-RATE MORTGAGES RISK WEIGHTS**  
**for**  
**SCHEDULE 2**

**Risk Weights - Rising Rate**

Balances with Coupons of:	Remaining Time to Maturity			
	5 Years or Less	Over 5 Years Through 10 Years	Over 10 Years Through 20 Years	Over 20 Years
≤ 6.75%	(6.0%)	(7.9%)	(8.9%)	(12.3%)
6.76% - ≤7.25%	(5.9%)	(7.8%)	(8.8%)	(11.9%)
7.26% - ≤7.75%	(5.7%)	(7.6%)	(8.5%)	(11.5%)
7.76% - ≤8.25%	(5.5%)	(7.2%)	(8.2%)	(11.0%)
8.26% - ≤ 8.75%	(5.2%)	(6.8%)	(7.7%)	(10.3%)
8.76% - ≤ 9.25%	(4.7%)	(6.1%)	(7.1%)	(9.5%)
9.26% - ≤ 9.75%	(4.1%)	(5.4%)	(6.4%)	(8.5%)
> 9.75%	(3.0%)	(3.9%)	(4.9%)	(6.3%)

**Risk Weights - Declining Rate**

Balances with Coupons of:	Remaining Time to Maturity			
	0 to 5 Years	5 to 10 Years	10 to 20 Years	> 20 Years
≤ 6.75%	5.8%	7.8%	9.3%	13.4%
6.76% - ≤7.25%	5.2%	6.9%	8.5%	12.1%
7.26% - ≤7.75%	4.5%	5.8%	7.5%	10.6%
7.76% - ≤8.25%	3.7%	4.8%	6.5%	9.1%
8.26% - ≤ 8.75%	3.1%	3.8%	5.5%	7.6%
8.76% - ≤ 9.25%	2.6%	3.1%	4.5%	6.2%
9.26% - ≤ 9.75%	2.3%	2.7%	3.8%	5.1%
> 9.75%	2.1%	2.4%	2.9%	3.5%

**Table 1**

**Derivation of Risk Weights (excluding 1-4 yr. family mortgages)**

Amortizing Instruments				Scenario 1 200 basis point rise			Scenario 2 200 basis point decline		
Time Band	Maturity*	Coupon	Price (% OF PAR)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)
0-3 Months	1.5 Mo.	7.5	100.00%	99.80%	-0.20%	100.20%	0.20%	100.20%	0.20%
3-12 Months	7.5 Mo.	7.5	100.00%	99.30%	-0.70%	100.70%	0.70%	100.70%	0.70%
1-3 Years	2 Years	7.5	100.00%	98.00%	-2.00%	102.00%	2.00%	102.00%	2.00%
3-5 Years	4 Years	7.5	100.00%	96.30%	-3.70%	103.90%	3.90%	103.90%	3.90%
5-10 Years	7.5 Years	7.5	100.00%	93.50%	-6.50%	107.20%	7.20%	107.20%	7.20%
10-20 Years	15 Years	7.5	100.00%	88.90%	-11.10%	113.30%	13.30%	113.30%	13.30%
Over 20 Years	25 Years	7.5	100.00%	84.90%	-15.10%	120.00%	20.00%	120.00%	20.00%
<b>All Other Instruments</b>									
0-3 Months	1.5 Mo.	7.5	100.00% **	99.75%	-0.25%	100.25%	0.25%	100.25%	0.25%
3-12 Months	7.5 Mo.	7.5	100.00% **	98.80%	-1.20%	101.30%	1.30%	101.30%	1.30%
1-3 Years	2 Years	7.5	100.00%	96.40%	-3.60%	103.80%	3.80%	103.80%	3.80%
3-5 Years	4 Years	7.5	100.00%	93.40%	-6.60%	107.10%	7.10%	107.10%	7.10%
5-10 Years	7.5 Years	7.5	100.00%	89.40%	-10.60%	112.20%	12.20%	112.20%	12.20%
10-20 Years	15 Years	7.5	100.00%	84.10%	-15.90%	120.30%	20.30%	120.30%	20.30%
Over 20 Years	25 Years	7.5	100.00%	81.00%	-19.00%	127.00%	27.00%	127.00%	27.00%
<b>Liabilities</b>									
0-3 Months	1.5 Mo.	3.75	100.00% **	99.75%	0.25%	100.25%	-0.25%	100.25%	-0.25%
3-12 Months	7.5 Mo.	3.75	100.00% **	98.80%	1.20%	101.20%	-1.20%	101.20%	-1.20%
1-3 Years	2 Years	3.75	100.00%	96.30%	3.70%	103.90%	-3.90%	103.90%	-3.90%
3-5 Years	4 Years	3.75	100.00%	93.00%	7.00%	107.60%	-7.60%	107.60%	-7.60%
5-10 Years	7.5 Years	3.75	100.00%	88.00%	12.00%	114.00%	-14.00%	114.00%	-14.00%
10-20 Years	15 Years	3.75	100.00%	80.10%	19.90%	126.20%	-26.20%	126.20%	-26.20%
Over 20 Years	25 Years	3.75	100.00%	73.70%	26.30%	140.30%	-40.30%	140.30%	-40.30%
<b>Zero or Low Coupon Securities</b>									
0-3 Months	1.5 Mo.	0	98.08%	98.83%	-0.25%	99.32%	0.25%	99.32%	0.25%
3-12 Months	7.5 Mo.	0	95.51%	94.37%	-1.20%	96.67%	1.30%	96.67%	1.30%
1-3 Years	2 Years	0	86.31%	83.06%	-3.80%	89.72%	4.00%	89.72%	4.00%
3-5 Years	4 Years	0	74.49%	68.99%	-7.40%	80.49%	8.10%	80.49%	8.10%
5-10 Years	7.5 Years	0	57.57%	49.85%	-13.40%	66.57%	15.70%	66.57%	15.70%
10-20 Years	15 Years	0	33.14%	24.85%	-25.00%	44.31%	33.80%	44.31%	33.80%
Over 20 Years	25 Years	0	15.87%	9.82%	-38.10%	25.76%	62.30%	25.76%	62.30%

\* No prepayments are assumed for these hypothetical instruments

\*\* Actual initial price is slightly less than par

Table 1 (con't)

Derivation of Risk Weights for 1-4 yr. family mortgages

				Scenario 1			Scenario 2		
				200 basis point rise			200 basis point decline		
Time Band	Maturity*	Coupon	Price (% OF PAR)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)
0-3 Months	1.5 Mo.	7.50%	100.00%	99.80%	-0.20%	100.20%	0.20%	100.20%	0.20%
3-12 Months	7.5 Mo.	7.50%	100.00%	99.30%	-0.70%	100.70%	0.70%	100.70%	0.70%
1-3 Years	2 Years	7.50%	100.00%	98.08%	-2.00%	101.98%	2.00%	101.98%	2.00%
3-5 Years	4 Years	7.50%	98.76%	93.10%	-5.70%	103.17%	4.50%	103.17%	4.50%
5-10 Years	7.5 Years	7.50%	97.57%	90.19%	-7.60%	103.25%	5.80%	103.25%	5.80%
10-20 Years	15 Years	7.50%	95.55%	87.40%	-8.50%	102.74%	7.50%	102.74%	7.50%
Over 20 Years	25 Years	7.50%	92.07%	81.46%	-11.50%	101.87%	10.60%	101.87%	10.60%

  

				Scenario 1			Scenario 2		
				200 basis point rise			200 basis point decline		
Reset Frequency	Maturity*	Coupon	Price (% OF PAR)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)	Price (% OF PAR)	% Change in Present Value (Risk Weights)
0 to 6 Months	6 mo CMT	7.50%	101.31%	97.03%	-4.20%	102.93%	1.60%	102.93%	1.60%
6 Months to 1 Year	12 mo CMT	7.50%	102.12%	97.60%	-4.40%	104.04%	1.90%	104.04%	1.90%
Greater than 1 Year	3 yr CMT	7.50%	99.58%	92.99%	-6.60%	104.62%	5.10%	104.62%	5.10%
Near Lifetime Cap	12 mo CMT	7.50%	99.10%	92.13%	-7.00%	103.42%	4.40%	103.42%	4.40%

Adjustable-Rate Mortgages

\* No prepayments are assumed for these hypothetical instruments

- (a) 6 mos CMT, 100 bp periodic cap, 275 bp margin, 500 bp from lifetime cap
- (b) 12 mo. CMT, 200 bp periodic cap, 275 bp margin, 500 bp from lifetime cap
- (c) 3 yr. CMT, 200 bp periodic cap, 275 bp margin, 500 bp from lifetime cap
- (d) 12 mo. CMT, no periodic cap, 275 bp margin, 200 bp from lifetime cap



**TABLE 2**  
**FIXED-RATE MORTGAGES RISK WEIGHTS**  
**for**  
**SCHEDULE 2**

**Risk Weights - Rising Rate**

Balances with Coupons of:	Remaining Time to Maturity			
	5 Years or Less	Over 5 Years Through 10 Years	Over 10 Years Through 20 Years	Over 20 Years
≤ 6.75%	(6.0%)	(7.9%)	(8.9%)	(12.3%)
6.76% - ≤7.25%	(5.9%)	(7.8%)	(8.8%)	(11.9%)
7.26% - ≤7.75%	(5.7%)	(7.6%)	(8.5%)	(11.5%)
7.76% - ≤8.25%	(5.5%)	(7.2%)	(8.2%)	(11.0%)
8.26% - ≤ 8.75%	(5.2%)	(6.8%)	(7.7%)	(10.3%)
8.76% - ≤ 9.25%	(4.7%)	(6.1%)	(7.1%)	(9.5%)
9.26% - ≤ 9.75%	(4.1%)	(5.4%)	(6.4%)	(8.5%)
> 9.75%	(3.0%)	(3.9%)	(4.9%)	(6.3%)

**Risk Weights - Declining Rate**

Balances with Coupons of:	Remaining Time to Maturity			
	0 to 5 Years	5 to 10 Years	10 to 20 Years	> 20 Years
≤ 6.75%	5.8%	7.8%	9.3%	13.4%
6.76% - ≤7.25%	5.2%	6.9%	8.5%	12.1%
7.26% - ≤7.75%	4.5%	5.8%	7.5%	10.6%
7.76% - ≤8.25%	3.7%	4.8%	6.5%	9.1%
8.26% - ≤ 8.75%	3.1%	3.8%	5.5%	7.6%
8.76% - ≤ 9.25%	2.6%	3.1%	4.5%	6.2%
9.26% - ≤ 9.75%	2.3%	2.7%	3.8%	5.1%
> 9.75%	2.1%	2.4%	2.9%	3.5%

**TABLE 3**  
**ADJUSTABLE-RATE MORTGAGES RISK WEIGHTS**  
**for**  
**SCHEDULE 3**

	Reset Frequency						
	6 Months or Less		Over 6 Months to 1 Year			Over 1 Year	
	No periodic cap	Periodic cap	No periodic cap	Periodic Cap less than 150bp	Periodic cap more than 150bp	No periodic cap	Periodic cap
<b>Instruments 200 basis points or less from the lifetime cap</b>							
Rising rates	(6.6)	(6.8)	(7.0)	(7.3)	(7.0)	(7.3)	(7.3)
Declining rates	3.7	4.0	4.4	4.9	4.4	6.0	6.0
<b>Instruments 201 to 400 basis points from the lifetime cap</b>							
Rising rates	(5.1)	(5.9)	(5.6)	(6.7)	(6.1)	(6.6)	(7.0)
Declining rates	2.4	2.9	2.9	4.2	3.3	5.0	5.6
<b>Instruments 401 to 600 basis points from the lifetime cap</b>							
Rising rates	(2.5)	(4.2)	(3.0)	(5.8)	(4.4)	(5.0)	(6.6)
Declining rates	0.9	1.6	1.2	3.2	1.9	3.2	5.1
<b>Instruments more than 600 basis points from the lifetime cap</b>							
Rising rates	(1.1)	(3.3)	(1.4)	(5.4)	(3.5)	(3.6)	(6.5)
Declining rates	0.5	1.3	0.8	3.0	1.5	2.3	4.9

**TABLE 4**  
**ADJUSTABLE-RATE MORTGAGES RISK WEIGHTS**  
**for**  
**SCHEDULE 4**

(Each of the following tables corresponds to a column on Schedule 4)

**Current Market Index - 6 Month or Less Reset Frequency - No Periodic Cap**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	4.75% and under	(9.2%)	10.3%	(8.8%)	8.5%	(7.2%)	4.7%	(4.4%)	1.8%
	4.76% to 6.25%	(8.7%)	7.9%	(7.7%)	5.7%	(5.2%)	2.3%	(2.4%)	0.8%
	6.26% to 7.75%	(7.4%)	4.5%	(5.8%)	3.0%	(3.0%)	1.0%	(1.2%)	0.5%
	Over 7.75%	(5.1%)	2.0%	(3.6%)	1.3%	(1.5%)	0.6%	(0.7%)	0.5%

**Current Market Index - 6 Month or Less Reset Frequency - With Periodic Cap**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	4.75% and under	(9.2%)	10.4%	(9.0%)	9.3%	(8.2%)	7.1%	(7.1%)	5.3%
	4.76% to 6.25%	(8.7%)	8.2%	(8.2%)	6.7%	(6.9%)	4.4%	(5.6%)	3.2%
	6.26% to 7.75%	(7.6%)	4.8%	(6.7%)	3.5%	(5.0%)	1.9%	(3.9%)	1.4%
	Over 7.75%	(5.3%)	2.4%	(4.2%)	1.8%	(2.7%)	1.1%	(2.1%)	1.0%

**TABLE 4 (Continued)**  
**ADJUSTABLE-RATE MORTGAGES RISK WEIGHTS**

**Current Market Index - 6 Months to 1 Year Reset Frequency - No Periodic Cap**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	4.75% and under	(9.2%)	10.4%	(8.9%)	8.9%	(7.6%)	5.5%	(5.1%)	2.3%
	4.76% to 6.25%	(8.7%)	8.4%	(8.0%)	6.3%	(5.8%)	2.9%	(3.0%)	1.2%
	6.26% to 7.75%	(7.7%)	5.3%	(6.4%)	3.6%	(3.6%)	1.4%	(1.6%)	0.8%
	Over 7.75%	(5.8%)	2.5%	(4.2%)	1.7%	(1.9%)	0.9%	(1.0%)	0.7%

**Current Market Index - 6 Months to 1 Year Reset Frequency**  
**Periodic Cap Less than 150 bp**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	4.75% and under	(9.3%)	10.4%	(9.1%)	9.7%	(8.7%)	8.4%	(8.2%)	7.6%
	4.76% to 6.25%	(8.8%)	8.7%	(8.4%)	7.8%	(7.7%)	6.4%	(7.2%)	5.8%
	6.26% to 7.75%	(7.8%)	5.9%	(7.3%)	5.1%	(6.4%)	4.0%	(5.9%)	3.7%
	Over 7.75%	(6.2%)	2.9%	(5.5%)	2.4%	(4.6%)	1.9%	(4.3%)	1.8%

**TABLE 4 (Continued)**  
**ADJUSTABLE-RATE MORTGAGES RISK WEIGHTS**

**Current Market Index - 6 Months to 1 Year Reset Frequency**  
**Periodic Cap Greater than 150 bp**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	4.75% and under	(9.2%)	10.4%	(9.0%)	9.3%	(8.2%)	7.1%	(7.1%)	5.3%
	4.76% to 6.25%	(8.7%)	8.4%	(8.2%)	6.9%	(6.9%)	4.6%	(5.6%)	3.4%
	6.26% to 7.75%	(7.7%)	5.3%	(6.8%)	4.0%	(5.1%)	2.3%	(4.0%)	1.8%
	Over 7.75%	(5.8%)	2.5%	(4.7%)	1.8%	(3.1%)	1.0%	(2.5%)	0.9%

**Current Market Index - Over 1 Year Reset Frequency - No Periodic Cap**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	5.50% and under	(9.2%)	10.0%	(8.9%)	9.0%	(7.9%)	6.7%	(6.3%)	4.3%
	5.51% to 8.00%	(8.2%)	7.5%	(7.6%)	6.2%	(6.1%)	3.9%	(4.2%)	2.6%
	8.01% to 10.50%	(5.6%)	3.2%	(4.6%)	2.6%	(3.1%)	2.0%	(2.3%)	1.9%
	Over 10.50%	(3.3%)	2.1%	(2.8%)	2.0%	(2.1%)	1.9%	(2.0%)	1.9%

**TABLE 4 (Continued)**  
**ADJUSTABLE-RATE MORTGAGES RISK WEIGHTS**

**Current Market Index - Over 1 Year Reset Frequency - With Periodic Cap**

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	5.50% and under	(9.2%)	10.0%	(9.0%)	9.5%	(8.8%)	8.7%	(8.6%)	8.4%
	5.51% to 8.00%	(8.2%)	7.5%	(8.0%)	7.0%	(7.5%)	6.4%	(7.4%)	6.2%
	8.01% to 10.50%	(5.6%)	3.2%	(5.3%)	2.9%	(4.9%)	2.7%	(4.8%)	2.6%
	Over 10.50%	(3.3%)	2.3%	(3.1%)	2.2%	(2.8%)	2.2%	(2.8%)	2.2%

**Lagging Market Index - 1 Month or Less Reset Frequency**

		Distance From The Lifetime Cap							
		200 basis points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	5% and under	(9.3%)	10.6%	(9.0%)	9.0%	(7.5%)	5.5%	(5.0%)	2.7%
	5.01% to 6.5%	(8.4%)	7.3%	(7.4%)	5.4%	(4.9%)	2.7%	(2.8%)	1.8%
	6.51% to 8%	(7.5%)	5.2%	(6.2%)	3.8%	(3.7%)	2.0%	(2.2%)	1.6%
	Over 8%	(4.8%)	2.4%	(3.7%)	2.0%	(2.2%)	1.6%	(1.7%)	1.6%

**TABLE 4 (Continued)**  
**ADJUSTABLE-RATE MORTGAGES RISK WEIGHTS**

Lagging Market Index - Over 1 Month Reset Frequency

		Distance From The Lifetime Cap							
		200 Basis Points or Less		201 to 400 Basis Points		401 to 600 Basis Points		Over 600 Basis Points	
		Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates	Rising Rate	Declining Rates
Weighted Average Coupon Range	5% and under	(9.2%)	10.5%	(9.0%)	9.3%	(8.2%)	6.7%	(7.0%)	4.8%
	5.01% to 6.5%	(8.1%)	7.2%	(7.3%)	5.6%	(5.7%)	3.4%	(4.3%)	2.6%
	6.51% to 8%	(7.2%)	5.4%	(6.2%)	4.2%	(4.5%)	2.7%	(3.5%)	2.4%
	Over 8%	(5.3%)	3.3%	(4.5%)	3.0%	(3.5%)	2.7%	(3.2%)	2.6%

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#### Appendix 4—Technical Description of Supplemental Modules and Risk Weights

This appendix is intended to provide detailed information on the methods used to derive the risk weights used in the supervisory measurement system. Descriptions of the derivation of non-mortgage risk weights are provided, followed by the descriptions for fixed and adjustable-rate mortgage risk weights. Titles and locations of reference documents are also provided.

##### I. Non-Mortgage Risk Weights

The non-mortgage risk weights were derived using hypothetical market instruments that are representative of the asset or liability category that is measured. Each weight approximates the percentage change in the price of the benchmark instruments given a 200 basis point, instantaneous and uniform shift in market interest rates. Separate risk weights are constructed for the rising and falling interest rate scenarios for the following categories:

- (1) Other amortizing assets;
- (2) Zero or low coupon assets;
- (3) All other assets;
- (4) Liabilities; and
- (5) Off-balance sheet.

##### A. Benchmark Instruments for Non-Mortgage Risk Weights

The benchmark instruments for each category of assets and liabilities, corresponding maturities, coupons and bond-equivalent yields are listed below.

(1) *Other Amortizing Assets:* For other (non-mortgage) amortizing assets, a benchmark monthly amortizing instrument with an original maturity equal to the end point of the specific time band; a remaining maturity equal to the midpoint of the time band; and a coupon and bond-equivalent yield equal to 7.50% was used.<sup>17</sup> No prepayments are assumed for this category of instruments.

(2) *Zero- or Low-Coupon Assets:* The risk weights for zero- or low-coupon instruments were calculated using the percentage change in the price of a zero-coupon instrument with an assumed maturity equal to the mid-point of each time band and a bond-equivalent yield of 7.50%.

(3) *All Other Assets:* The risk weights for the "All Other" category were calculated assuming semi-annual interest payments, a maturity equal to the mid-point of each time band, and an assumed coupon and yield equal to 7.50%.

(4) *Liabilities:* The only set of risk weights used for liabilities is represented by the percentage price change for a semi-annual interest-bearing instrument with an assumed coupon and yield equal to 3.75%.<sup>18</sup>

(5) *Off-Balance Sheet Positions:* The risk weights for interest rate futures, forwards and swaps are the same as those applied to the "All Other" category. Off-balance sheet positions with amortizing features are assigned the same risk weights as the "Other Amortizing" category.

##### B. Derivation of Non-Mortgage Risk Weights

The prices and risk weights for each rate scenario were calculated in the following manner:

(1) The benchmark instruments were priced at par in the base case, or current interest rate environment. Using the coupon and maturity of the instruments and static discounted cash flow analysis, the bond-equivalent yields were calculated.

(2) Prices for the benchmark instruments were then calculated for the rising and declining rate scenarios by shifting the bond-equivalent yields up and down by 200 basis points. The present values of the expected cash flows in each scenario were then determined to arrive at the new price for each instrument.

(3) The percentage change in the price from the base case price of par represents the risk weight for the benchmark instrument in the corresponding rate scenarios. If the risk weight was determined to be less than 1 percentage point, it was expanded to the nearest 5 basis points interval. If the risk weight was greater than 1 percentage point, it was rounded to the nearest 10 basis points interval.

##### II. Treatment of Fixed-rate Mortgages and Derivation of Risk Weights

###### Office of Thrift Supervision Pricing Information

Representative benchmark mortgage instruments used in the calculation of risk weights for Schedules 1 through 4 were based on instruments available in the *Office of Thrift Supervision (OTS) Asset and Liability Price Tables* as of September 30, 1994. Publicly available data on certain coupon ranges and weighted average remaining maturities (WARM) not specifically presented in the *OTS Asset and Liability Price Tables*

were obtained from the OTS as part of a separate data request by the agencies.

Representative benchmark fixed-rate mortgage instruments for Schedule 1 were drawn from a combination of hypothetical mortgage pass-through instruments and mortgage pool securities listed in the *OTS Asset and Liability Price Tables*. The mortgage pool security price information contained in the *OTS Asset and Liability Price Tables* were calculated using the OTS Net Portfolio Value Model. A brief overview of the pricing methodology in the *OTS Net Portfolio Value Model Manual*, published in November 1994, states that "the model uses the options-based approach to determine the market value of 1 to 4 family mortgages. Cash flows consist of scheduled principal payments, interest, and prepaid principal. Prepayments are modeled using a prepayment equation that relates the prepayment rate for a particular period to, among other factors, the difference between the mortgage coupon rate and the current market interest rate. Scheduled principal and interest cash flows are estimated by amortizing the remaining balance in each period over its remaining term. To calculate market values in each of the alternate interest rate scenarios, cash flows for that scenario are discounted by the simulated Treasury rates for that scenario plus the option-adjusted spread." For additional detail and model specifications, refer to The *OTS Net Portfolio Value Model*, published by the OTS, Risk Management Division, Washington, District of Columbia. Copies of the aforementioned publication are available for review in the FDIC Reading Room, 550 North 17th Street, N.W., Washington, District of Columbia, and the in the OCC Library at 250 E Street SW., Washington, District of Columbia.

The OTS model projects prices for numerous fixed-rate and adjustable-rate mortgage securities with various weighted average coupons (WAC) and WARM given different interest rate scenarios. Price tables are provided for different types of mortgage pool securities. Each table contains mortgage pool security prices as a percentage of the underlying mortgage balance in the base case (current interest rates) as well as price projections for interest rate movements up and down 400 basis points in 100 basis point increments.

Fixed-rate residential mortgage assets have embedded options that make the value of the instrument more sensitive to interest rate changes than fixed maturity instruments. In order to more effectively analyze the impact of

<sup>17</sup> For the third quarter of 1994, the average effective yield on earning assets at all commercial banks was approximately 7.50% on an annualized basis.

<sup>18</sup> The 3.75% coupon approximates the effective cost of interest-bearing liabilities at all commercial banks for the third quarter of 1994 on an annualized basis.



embedded options on the value of this asset class, additional reporting schedules are required depending on the amount of an institution's mortgage holdings in relation to its total assets. Both one-to-four family residential mortgage loans and pass-through securities are considered mortgage holdings for the purposes of these schedules. CMOs and other mortgage derivative securities are accorded separate treatment as described in the body of the Policy Statement.

**A. Benchmark Instruments**

Risk weights have been derived from a group of benchmark fixed-rate

mortgages with attributes most representative of the mortgage market as of September 30, 1994. Balances reported by banks would be assigned risk weights corresponding to these benchmark instruments. It is believed that the benchmark risk weights will provide reasonable approximations of the price sensitivity of an institution's actual holdings.

**1. Benchmark Instruments for Schedule 1**

For Schedule 1, outstanding balances would be reported according to their remaining maturity in one of seven time bands represented by Columns B

through H of Schedule 1 as shown in Table 1. The balances in each time band would be assigned risk weights equal to the price sensitivity of the benchmark instruments chosen for that specific time band. The benchmark instrument for the first three time bands (Columns B, C, and D) on Schedule 1 are monthly amortizing instruments with original maturities equal to the end point of the specific time band; remaining maturities equal to the midpoint of each time band; and a coupon and bond-equivalent yield equal to 7.50%. No prepayments are assumed for those time bands.

TABLE 1.—FIXED-RATE MORTGAGES RISK WEIGHT DERIVATIONS FOR SCHEDULE 1

Column	B	C 3 Months to 1 year	D	E	F	G	H
	≤ 3 months		1 to 3 years	3 to 5 years	5 to 10 years	10 to 20 years	> 20 years
Source .....	Discounted Cash Flow.	Discounted Cash Flow.	Discounted Cash Flow.	OTS Data .....	OTS Data .....	OTS Data .....	OTS Data.

The benchmark mortgage instruments for the remaining four time bands are as follows:

(1) *Column E (3 to 5 years):* 7-year fixed-rate balloon mortgage pool security with a 48-month WARM and a 7.50% WAC;

(2) *Column F (over 5 to 10 years):* 7-year fixed-rate balloon mortgage pool security with a 72-month WARM and a 7.50% WAC;

(3) *Column G (over 10 to 20 years):* 15-year fixed-rate mortgage pool security with a 160-month WARM and a 7.50% WAC;

(4) *Column H (over 20 years):* FHLMC/FNMA 30-year fixed-rate mortgage pool security with a 330-month WARM and a 7.50% WAC.

The coupon rate of 7.50 percent was chosen for consistency with the average effective annualized yield on earning assets at all commercial banks as of September 30, 1994. Consideration was also given to the average dollar amount of outstanding 30 year Federal National Mortgage Association (FNMA) mortgage pass-through securities in September 1994.

**2. Benchmark Instruments for Schedule 2**

The benchmark instruments used to derive the risk weights for Schedule 2 include the following:

(1) *Column A (0–5 years):* 7-year fixed-rate balloon mortgage pool security with a 48 month WARM;

(2) *Column B (Over 5 to 10 years):* 7-year fixed-rate balloon mortgage pool security with a 72 month WARM;

(3) *Column C (Over 10 to 20 years):* 15-year fixed-rate mortgage pool security with a 160 month WARM;

(4) *Column D (Over 20 years):* FHLMC/FNMA 30-year fixed-rate mortgage pool security with a 330 month WARM.

The weighted average coupon rates of the benchmark instruments were the midpoints of the coupon ranges with the exception of those coupons equal to or less than 6.75 percent and equal to or greater than 9.76 percent. For those coupon ranges, the WACs used were 6.50 percent and 10.50 percent respectively.

**B. Derivation of Fixed-rate Mortgage Risk Weights**

The following examples have been taken directly from the information

contained in the OTS Asset and Liability Price Tables as of 9/30/94 as well as data obtained from the OTS in a separate request by the agencies. As previously noted, the OTS price tables present prices of mortgage pool securities based on bond-equivalent yields, given an increase and decrease in interest rates from 100 to 400 basis points in 100 basis point increments. The supervisory measurement system risk weights are derived using the 200 basis point increase and decrease scenarios.

Table 2 includes prices for the representative mortgage instrument chosen for the first column of Schedule 2, which is a 7-year fixed-rate balloon with a 48-month WARM. All mortgage holding balances reported in the 0–5 year column would receive a risk weight equal to the percentage change in price for this instrument given ±200 basis point rate shifts. Price changes for each benchmark vary depending on the particular WAC as depicted in the table. The midpoint of each WAC range was selected to determine which benchmark instrument to use from the OTS price table.

TABLE 2.—7-YEAR FIXED-RATE BALLOON WITH A 48-MONTH WARM PRICES AS A PERCENT OF THE UNDERLYING MORTGAGE BALANCE AS OF SEPTEMBER 30, 1994

0–5 Year time band benchmark			
Interest rate scenario			
Coupon	–200 bp	0 bp	+200 bp
≥6.75% .....	101.57	96.01	90.26

TABLE 2.—7-YEAR FIXED-RATE BALLOON WITH A 48-MONTH WARM PRICES AS A PERCENT OF THE UNDERLYING MORTGAGE BALANCE AS OF SEPTEMBER 30, 1994—Continued

0-5 Year time band benchmark			
Coupon	Interest rate scenario		
	-200 bp	0 bp	+200 bp
6.76%—≤7.25%	102.54	97.50	91.77
7.26%—≤7.75%	103.17	98.76	93.10
7.76%—≤8.25%	103.74	100.01	94.49
8.26%—≤8.75%	104.33	101.23	96.00
8.76%—≤9.25%	104.89	102.26	97.47
9.26%—≤9.75%	105.34	102.99	98.74
>9.75%	106.30	104.12	100.98

**Example of a Risk Weight Calculation:**  
 The risk weights for the 7.26%-7.75% coupon range are calculated as follows: Using 7.50 percent as the midpoint of the coupon range, the base case price as of September 30, 1994, for a 7.50 percent, 7-year fixed-rate balloon mortgage, with a 48 month WARM is 98.76. In the +200 bp scenario, the base price of 98.76 is subtracted from +200 bp price of 93.10: (93.10 - 98.76 = -5.66). The absolute change is -5.66 representing a percentage decrease in price of -5.7% (-5.66/98.76 = -0.057

or -5.7%.) Negative 5.7% serves as the risk weight for the benchmark mortgage in the +200 bp scenario. As a result, all balances reported on Schedule 2, in the 0-5 year remaining maturity column, and the 7.26%-7.75% coupon row would receive a risk weight of -5.7 in the rising rate analysis.  
 In the -200 bp scenario, the base price of 98.76 is subtracted from the -200 bp price of 103.17: (103.17 - 98.76 = 4.41). The absolute change is 4.41 representing a percentage increase in price of 4.5% (4.41/98.76 = 0.0446 or 4.5%). The risk

weight for this benchmark mortgage becomes 4.5% in the -200 bp scenario. Consequently, all balances in this item receive the 4.5% risk weight in the declining rate analysis. The aforementioned method for calculating the risk weights is used to determine the risk weights for the other mortgage instruments. Tables 3, 4, and 5 are the price tables for the other three fixed-rate benchmark instruments used in the supervisory measurement system.

TABLE 3.—7-YEAR FIXED-RATE BALLOON WITH A 72-MONTH WARM PRICES AS A PERCENT OF THE UNDERLYING MORTGAGE BALANCE AS OF SEPTEMBER 30, 1994

>5-10 year time band benchmark	Coupon		
	Interest rate scenario		
	-200 bp	0 bp	+200 bp
≤6.75%	101.24	93.90	86.47
6.76%—≤7.25%	102.48	95.89	88.44
7.26%—≤7.75%	103.25	97.57	90.19
7.76%—≤8.25%	103.94	99.211	92.02
8.26%—≤8.75%	104.63	100.79	93.98
8.76%—≤9.25%	105.30	102.14	95.89
9.26%—≤9.75%	105.87	103.10	97.55
≤9.75%	107.09	104.57	100.53

TABLE 4.—15-YEAR FIXED-RATE POOL WITH A 160-MONTH WARM PRICES AS A PERCENT OF THE UNDERLYING MORTGAGE BALANCE AS OF SEPTEMBER 30, 1994

>10-20 year time band benchmark			
Coupon	Interest rate scenario		
	-200 bp	0 bp	+200 bp
≤6.75%	99.74	91.29	83.12
6.76%—≤7.25%	101.39	93.48	85.28
7.26%—≤7.75%	102.74	95.55	87.40
7.76%—≤8.25%	103.93	97.59	89.59
8.26%—≤8.75%	105.09	99.64	91.93
8.76%—≤9.25%	106.31	101.70	94.45
9.26%—≤9.75%	107.53	103.63	96.99
≤9.75%	109.79	106.72	101.53

TABLE 5 30-YEAR FIXED-RATE POOL WITH A 330-MONTH WARM PRICES AS A PERCENT OF THE UNDERLYING MORTGAGE BALANCE AS OF SEPTEMBER 30, 1994

Coupon	20 year time band benchmark		
	Interest rate scenario		
	-200 bp	0 bp	+200 bp
≤6.75%	97.78	86.20	75.61
6.76% – ≤7.25%	100.13	89.33	78.66
7.26% – ≤7.75%	101.87	92.07	81.46
7.76% – ≤8.25%	103.36	94.73	84.33
8.26% – ≤8.75%	104.77	97.36	87.33
8.76% – ≤9.25%	106.20	99.97	90.52
9.26% – ≤9.75%	107.67	102.49	93.80
≤9.75%	110.67	106.91	100.15

**III. Treatment of Adjustable-Rate Mortgages and Derivation of Risk Weights**

Adjustable-rate mortgage loans and securities (ARMS) have price sensitivities that are substantially different than fixed-rate mortgage assets primarily due to their coupon reset features. The coupon adjustments are generally limited by caps and floors both for the life of the mortgage and also at their reset period. These caps are known as lifetime caps and periodic caps. In general, there are three factors that most influence the price sensitivity of an ARM: the reset frequency, the periodic cap, and the lifetime cap.

A review of ARM price behavior reveals that the relationship between the periodic and lifetime caps and the effect of that relationship on ARM prices is complex and varies based upon the likelihood that either cap will become binding. Consequently, information on both the periodic cap and the lifetime cap would be reported by institutions with significant ARM holdings. Benchmark mortgages representative of the ARM market have been identified and are used to assign risk weights. Supplemental reporting schedules were also developed to capture the effect of these characteristics on the price of ARMs.

**A. Benchmark ARM Instruments**

The coupon ranges provided in Schedule 4 were chosen to be

representative of the ARM securities outstanding. In an effort to maintain consistency with the risk weights applied to the non-mortgage products and FRM holdings in Schedule 1, a 7.5% WAC was selected for all of the benchmark ARM instruments in Schedule 1 as well as for Schedule 3.

**1. Benchmark Instruments for Schedule 1**

The benchmark instruments for Schedules 1, 3, and 4 represent the characteristics of the ARM mortgages most prevalent in the market place according to reported index, margin, periodic cap, and distance to lifetime cap. Schedules 1 and 3 are based on instruments with 7.5% WACs and share other common characteristics, hence, all of the benchmark instruments and risk weights used for Schedule 1 may be found in Schedule 3. However, the benchmark WACs in Schedule 4 do not necessarily fall precisely on a 7.5 percent WAC. To obtain the 7.5 percent WAC sensitivity for Schedules 1 and 3 an additional interpolation was used. The interpolation used was the following:

- (1) for the 6-month and 1-year ARMs:  $P_{7.5} = 1/3[P_{8.5} - P_{7.0}] + P_{7.0}$ ;
- (2) for the 3-year ARMs:  $P_{7.5} = 1/3[P_{9.5} - P_{7.5}] + P_{6.5}$ .

Where as  $P_x = Price_{WAC(x)}$

The benchmark instruments for Schedule 1 are as follows:

(1) *Reset Frequency—0 to 6 Months:* Six month Constant Maturity Treasury (CMT) index, 275 basis point margin, four month reset period, 100 basis point periodic cap and 500 basis points to the lifetime cap;

(2) *Reset Frequency—6 Months to 1 Year:* One year CMT, 275 basis point margin, six month reset period, 200 basis point periodic cap and 500 basis points to the lifetime cap;

(3) *Reset Frequency—Greater than 1 Year:* Three year CMT, 275 basis point margin, 18 month reset period, 200 basis point periodic cap and 500 basis points to the lifetime cap;

(4) *Reset Frequency—Near Lifetime Cap:* One year CMT, 275 basis point margin, six month reset period, no periodic cap and 200 basis points from the lifetime cap.

**2. Benchmark Instruments for Schedule 3**

The benchmark instruments for Schedule 3 represent the characteristics of the ARM mortgages most prevalent in the market place according to reported index, margin, periodic cap, and distance to lifetime cap. Banks are required to report their ARM holdings by reset frequency, periodic interest rate cap levels, and distance from the lifetime cap in Schedule 3. The benchmark instruments for each reset frequency and lifetime cap are summarized in Table 6.

TABLE 6.—BENCHMARK INSTRUMENTS FOR SCHEDULE 3

RESET frequency						
6 Months or less: 6 Month treasury 275 margin 330 month WARM 7.50% WAC		Over 6 months to 1 year: 1 Year treasury 275 margin 330 month WARM 7.50% WAC			Over 1 year: 3 Year treasury 275 margin 330 month WARM 7.50% WAC	
No Cap: No periodic cap	Cap: 100 bp periodic cap and floor	No Cap: No periodic cap	Cap <150bp: 100 bp periodic cap and floor	Cap > 150bp: 200 bp periodic cap and floor	No Cap: No periodic cap	Cap: 200 bp periodic cap

DISTANCE FROM LIFETIME CAP

Instruments 200 basis points or less from lifetime cap: 200 basis points  
 Instruments 201 to 400 basis points from lifetime cap: 300 basis points.  
 Instruments 401 to 600 basis points from lifetime cap: 500 basis points.  
 Instruments more than 600 basis points from lifetime cap: 700 basis points.

3. Benchmark Instruments for Schedule 4 periodic and lifetime caps as shown in Table 7.

Schedule 4 collects information on an ARM's rate index, reset frequency,

TABLE 7.—ADJUSTABLE-RATE MORTGAGE INFORMATION FOR SCHEDULE 4

Current market index by reset frequency						Lagging market index by reset frequency		
6 Months or less		Over 6 months to 1 year			Over 1 year		1 Month or less	Over 1 month
No cap	Cap	No Cap	Cap of 150 bp or less	Cap of more than 150	No Cap	Cap		

Treasury ARM securities were used as the benchmark for the class of mortgages labeled *Current Market Index*. COFI ARM securities were used as the benchmark for the class of mortgages labeled as *Lagging Market Index*. Within each reset frequency and cap range for the *Current Market Index* and *Lagging Market Index* mortgage classes, benchmark instruments were used. The WAC and cap benchmarks for the instruments used for Schedule 4 are as follows:

a. Current Market Index By Reset Frequency

(1) *6 Months or Less, No Cap*: 6-month Treasury ARM securities, as published in the OTS price tables as of September 30, 1994, subject to the aforementioned linear interpolation were used for this category. OTS price tables provide price data on 7.00 percent WAC and 8.50 percent WAC 6-Month Treasury ARM securities. The benchmark weighted average coupons for each WAC range are provided in Table 8.

TABLE 8.—BENCHMARK WACS FOR 6 MONTH TREASURY ARMS

Weighted average coupon	Benchmark WAC (percent)
4.75% and under	4.00
4.76% to 6.25%	5.50
6.26% to 7.75%	7.00
Over 7.75%	8.50

(2) *6 Months or Less, Cap*: The same benchmark WAC's as those listed in Table 7 were used for the benchmark instruments in this category, subject to a 100 basis point periodic cap and floor.

(3) *Over 6 Months to 1 year, No Cap*: 12-Month Treasury ARM securities, as published in the OTS price tables as of September 30, 1994, were used for this category. Because the WAC ranges provided in the OTS price tables vary based on the underlying index, the WAC ranges developed for the supervisory measurement system also vary with the underlying index. OTS price tables provide price information on 7.00 percent WAC and 8.50 WAC 12-Month Treasury ARM securities. The benchmark weighted average coupon used for the WAC ranges are provided in Table 9.

TABLE 9.—BENCHMARK WACS FOR 12-MONTH TREASURY ARMS

Weighted average coupon	Benchmark WAC (percent)
4.75% and under	4.00
4.76% to 6.25%	5.50
6.26% to 7.75%	7.00
Over 7.75%	8.50

(4) *Over 6 Months to 1 Year, Cap of 150 Basis Points of Less*: The same benchmark WAC's as those listed in Table 10 were used for the benchmark instruments in this category, subject to a 100 basis point periodic cap and floor.

(5) *Over 6 Months to 1 Year, Cap of More Than 150 Basis Points*: The same benchmark WAC's as those listed in Table 10 were used for the benchmark instruments in this category, subject to a 200 basis point periodic cap and floor.

(6) *Over 1 Year, No Cap*: 36-Month Treasury ARM securities, as published in the OTS price tables as of September 30, 1994, were used for this category. Because the WAC ranges provided in the OTS price tables vary based on the underlying index, the WAC ranges developed for the supervisory measurement system also vary with the underlying index. OTS price tables

provide price information on 6.50 percent WAC and 9.50 WAC 36-Month Treasury ARM securities. The benchmark weighted average coupons used for the WAC ranges are provided in Table 10.

TABLE 10.—BENCHMARK WACS FOR 36 MONTH TREASURY ARMS

Weighted average coupon	Benchmark WAC (percent)
5.50% and under .....	4.50
5.51% to 8.00% .....	6.50
8.01% to 10.50% .....	9.50
Over 10.50% .....	11.50

(7) *Over 1 Year, Cap:* The same benchmark WAC's as those listed in Table 11 were used for the benchmark instruments in this category, subject to a 200 basis point periodic cap and floor.

**b. Lagging Market Index By Reset Frequency**

(1) *1 Month or Less:* 1 Month COFI ARM securities, as published in the OTS price tables as of September 30, 1994, were used for this category. Because the WAC ranges provided in the OTS price tables vary based on the underlying index, the WAC ranges

developed for the supervisory measurement system also vary with the underlying index. OTS price tables provide price information on 6.00 percent WAC and 7.00 WAC 1 Month COFI ARM securities. No periodic cap or floor were used for the benchmark instrument in this category. Table 11 provides the benchmark weighted average coupons used for each WAC range.

TABLE 11.—BENCHMARK WACS FOR 1 MONTH COFI ARMS

Weighted average coupon	Benchmark WAC (percent)
5.00% and under .....	4.00
5.01% to 6.50% .....	6.00
6.51% to 8.00% .....	7.00
Over 8.00% .....	9.00

(2) *Over 1 Month:* The same benchmark WAC's as those listed in Table 12 were used for the benchmark instruments in this category, subject to a 200 basis point periodic cap and floor.

**B. Derivation of Benchmark Instrument Prices and Risk Weights**

Benchmark ARM instruments used in the calculation of risk weights for

Schedules 1,3, and 4 were based on ARM securities available in the OTS Asset and Liability Price Tables as of September 30, 1994 and industry data. The OTS price tables do not contain prices for the benchmark instruments used in the supervisory measurement system.

Using the OTS price tables, a series of linear interpolations was performed to generate prices for the benchmark instruments, using bond-equivalent yields, selected for the supervisory measurement system. Prices were calculated for each WAC underlying a benchmark instrument (e.g., for benchmark instruments tied to the 6-month CMT-based ARM, WACs of 4.00 percent, 5.50 percent, 7.00 percent, 7.50 percent and 8.50 percent were calculated). Prices for the benchmark instruments for each of the selected WACs were interpolated for selected loan characteristics (i.e., margin, lifetime cap, and reset frequency) in each of the three interest rate scenarios used in the supervisory measurement system (i.e., +200 basis points, base case, and -200 basis points). Table 12 presents the OTS price table for a 6 month CMT-based ARM with a 7.0 percent WAC.

TABLE 12.—6-MONTH TREASURY ARM SECURITY PRICES AS OF SEPTEMBER 30, 1994 (WAC 7.00 PERCENT)

ARM parameters			Interest rate scenario		+ 200 Price
Margin	Lifetime cap (percent)	Months to reset	- 200 Price	0 Base	
200 basis points .....	11.0	2	100.85	99.64	95.13
200 basis points .....	11.0	6	101.34	99.42	94.03
200 basis points .....	15.0	2	100.86	100.07	97.58
200 basis points .....	15.0	6	101.35	99.85	96.32
350 basis points .....	11.0	2	104.30	101.68	95.29
350 basis points .....	11.0	6	104.52	100.73	94.18
350 basis points .....	15.0	2	104.39	103.02	99.02
350 basis points .....	15.0	6	104.61	102.02	97.60

In addition to the criteria established in the OTS price table presented above, the ARM securities have the following characteristics:

- (1) WARM of 330 months;
- (2) Lifetime floor 1200 basis points below the lifetime cap; and
- (3) Periodic cap and floor of 100 basis points.

The OTS price table provides the data for the linear interpolation process. As stated above, an interpolated price for each property of the benchmark instrument is derived through this process.

For each value of a selected variable, a linear interpolation was performed to generate a particular price of the

benchmark instrument. With each layer of interpolation, a new set of prices was produced. At the completion of the requisite number of interpolations needed to generate a price estimate given the set of criterion for the variables underlying a benchmark instrument, the resulting price table was used to calculate the risk weights for that particular instrument. Once the interpolated price table was developed, the risk weights were calculated in the same manner as those for fixed-rate mortgages.

**Office of the Comptroller of the Currency**

Dated: June 29, 1995.

**Eugene A. Ludwig,**  
Comptroller of the Currency.

By Order of the Board of Governors of the Federal Reserve System.

Dated: July 7, 1995.

**William Wiles,**  
Secretary of the Board.

By order of the Board of Directors.

Dated at Washington, DC this 27th day of June, 1995.

Federal Deposit Insurance Corporation.

**Jerry L. Langley,**

*Executive Secretary.*

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