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.