

FEDERAL RESERVE press release



For immediate release

July 30, 1992

The Federal Reserve Board today requested public comment on an interagency advance notice of proposed rulemaking on revising risk-based capital standards as prescribed by Section 305 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA).

Comments should be received by October 5, 1992.

The Board has developed this proposal in consultation with the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation.

The advance notice presents a detailed proposal to incorporate interest rate risk into the Board's risk-based capital guidelines and requests public comment on all aspects of the approach.

The notice also seeks public suggestions on methods to implement other requirements of Section 305 that risk-based capital standards be revised to take adequate account of concentration of credit risk and the risks of nontraditional activities. Comments received in response to this notice will be considered in developing a notice of proposed rulemaking that would be issued at a later date.

The federal banking agencies are required by FDICIA to publish final regulations by June 19, 1993.

The Board's notice is attached.

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Attachment

FEDERAL DEPOSIT INSURANCE CORPORATION

12 CFR Part 325

RIN 3064-AA15

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

12 CFR Part 3

[Docket No. 92-13]

FEDERAL RESERVE SYSTEM

12 CFR Parts 208 AND 225

[Docket No. R-0764]

RISK-BASED CAPITAL STANDARDS

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

ACTION: Joint Advance Notice of Proposed Rulemaking.

SUMMARY: The FDIC, the OCC, and the Board ("the Banking Agencies") solicit comments on a proposed framework for revising their risk-based capital guidelines to take adequate account of

interest rate risk. The Banking Agencies are also soliciting comments on how their risk-based capital guidelines may be revised to take account of concentration of credit risk and the risks of nontraditional activities. These revisions are required by section 305 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA).

DATES: Comments must be received on or before [insert date 60 days after date of publication in the Federal Register].

ADDRESSES: Commenters may respond to any or all of the Banking Agencies. All comments will be shared among all the Banking Agencies.

FDIC: Hoyle L. Robinson, Executive Secretary, Attention: Room F-400, Federal Deposit Insurance Corporation, 550 17th Street, N.W., Washington, D.C. 20429. Comments may be hand-delivered to room F-400, 1776 F Street, N.W., Washington, D.C., on business days between 8:30 a.m. and 5:00 p.m. [FAX number (202)898-3838]. Comments will be available for inspection and photocopying in room F-400 between 8:30 a.m. and 5:00 p.m. on business days.

OCC: Written comments should be submitted to Docket No. 92-13, 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-0764, may be mailed to Mr. William Wiles, Secretary, Board of Governors of the Federal Reserve System, 20th and Constitution Avenue, NW, 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, NW. Comments may be inspected in room B-1122 between 9 a.m. and 5 p.m., except as provided in § 261.8 of the Board's Rules Regarding Availability of Information, 12 CFR 261.8.

FOR FURTHER INFORMATION CONTACT:

FDIC: For issues relating to interest rate risk, William A. Stark, Assistant Director (202/898-6972) or Susan Dingilian, Capital Markets Specialist (202/898-7327), Division of Supervision; for issues relating to concentration of credit risk and the risks of nontraditional activities, Daniel M. Gautsch, Examination Specialist (202/898-6912), Division of Supervision; For legal issues, Claude A. Rollin, Counsel (202/898-3985), Legal Division, Federal Deposit Insurance Corporation, 550 17th Street, N.W., Washington, D.C. 20429.

OCC: Christina Benson, Capital Markets Specialist (202/874-5070) or Kurt Wilhelm, National Bank Examiner (202/874-5070), Office of the Chief National Bank Examiner; Kevin Jacques,

Financial Economist, Economic and Regulatory Policy Analysis (202/874-5220), and Ronald Shimabukuro, Senior Attorney, Legal Advisory Services Division (202/874-5330), Office of the Comptroller of the Currency, 250 E Street, S.W., Washington, D.C. 20219.

Board of Governors: James V. Houpt, Assistant Director (202/452-3358), James Embersit, Supervisory Financial Analyst (202/452-5249), Division of Banking Supervision and Regulation; Scott G. Alvarez, Associate General Counsel (202/452-3583), Gregory A. Baer, Senior Attorney (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.

SUPPLEMENTARY INFORMATION:

I. Background and Introduction

Section 305 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA), Pub. L. 102-242, requires the federal banking agencies to revise their risk-based capital guidelines to ensure that those standards take adequate account of (1) interest rate risk, (2) concentration of credit risk, and (3) the risks of nontraditional activities. See, 12 U.S.C. 1828 note. The

agencies must publish final regulations implementing section 305 by June 19, 1993, and establish reasonable transition rules to facilitate compliance with those regulations.

The Banking Agencies are issuing this advance notice of proposed rulemaking to seek public comment that will enable them to develop a proposed rule. The Banking Agencies solicit comments on all aspects of a proposed method for incorporating an interest rate risk (IRR) component into the current risk-based capital guidelines for banking institutions and, more generally, on ways that they may revise their risk-based capital guidelines to account for the risks created by concentration of credit and nontraditional activities. The Banking Agencies also request comment on any or all of the specific numbered questions presented below, though commenters may address any aspect of the proposal and need not confine their remarks to the numbered questions.

A. Proposal on Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates might adversely affect a bank's financial condition. As financial intermediaries, banks and other depository institutions accept interest rate risk as a normal part of their business. They assume this risk whenever the interest rate sensitivity of their assets does not match the sensitivity of their liabilities or off-balance-sheet positions.

While mismatched positions often permit institutions to profit from favorable changes in interest rates, they also expose a bank's earnings and capital to potential losses. For a bank with more interest-sensitive liabilities than assets, a rise in interest rates can reduce net interest income by increasing the institution's cost of funds relative to its yield on assets. Conversely, a bank with assets that reprice faster than liabilities may experience a decline in net interest income if interest rates decline.

Changes in interest rates may affect not only an institution's current earnings but also its future earnings and the economic value of its capital. These effects are reflected in changes in the present value of an institution's financial instruments. For the bank with liabilities repricing faster than assets, the present value of its assets will decline by more than the present value of its liabilities should interest rates rise. Hence, the economic value of its capital will decline if rates increase.

An objective of the IRR framework described herein is to ensure that banks with high levels of IRR have sufficient capital to cover their exposure. IRR exposures would be quantified using a measurement system that weights an institution's assets, liabilities and off-balance sheet positions by risk factors that approximate each instrument's price sensitivity to changes in interest rates. The net amount of these weighted values, the "Net Risk-Weighted Position," would serve as the basis for

measuring an institution's IRR exposure for capital adequacy purposes.

Under the proposal, institutions with IRR exposures in excess of some "threshold" level of IRR would be required to hold capital proportional to that excess risk. A supervisory decision regarding what constitutes an acceptable absolute level of measured IRR exposure would be used in conjunction with an industry distribution of measured exposures to specify the threshold level.

The proposed measurement system is designed to minimize reporting burdens while meeting regulatory needs. In view of the number of simplifying assumptions the system employs, the Banking Agencies do not intend for it to replace other, more sophisticated procedures that banks may use in their asset and liability management process.

B. Issues Concerning the Risks of Concentration of Credit and Nontraditional Activities

The Banking Agencies are not presenting a proposal for revising current risk-based capital guidelines to account for concentration of credit risk and the risks of nontraditional activities. Before proceeding with a proposal for these two risks, the Banking Agencies are seeking guidance on how these risks should be defined and on the factors that should be considered when incorporating these risks into capital guidelines. These comments will be considered in proposing any

changes to the risk-based capital guidelines.

C. Relationship of Section 305 to the Basle Accord

Section 305 reflects an awareness by Congress that capital standards are an international issue. Section 305(b)(2) requires the federal banking agencies to discuss the development of comparable standards with members of the supervisory committee of the Bank for International Settlements. In implementing section 305, the Banking Agencies seek to create a workable system for measuring the risks identified by section 305, while at the same time continuing to work with international organizations to develop consistent capital standards.

The three distinctive types of risk addressed by section 305 of FDICIA are not explicitly incorporated in the Basle Accord on risk-based capital that was implemented by the three federal

banking agencies in 1989.¹ The Basle Accord tailors a bank's minimum capital requirement to broad categories of credit risk embodied in its assets and off-balance-sheet instruments. Overall, the Basle Accord requires banks to have total capital equal to at least 8 percent of their risk-weighted assets by the end of 1992.² Banks with high or inordinate levels of risk are expected to operate well above minimum capital standards.

The Basle Accord makes a bank's minimum capital requirements sensitive to the risk of its assets and off-balance-sheet positions. The Basle Accord, however, focuses primarily on credit risk. It does not impose explicit capital charges tied to other factors that can affect a bank's financial condition, including interest rate risk.

With current risk-based capital guidelines based primarily

¹The "Basle Accord" refers to the Agreement on International Convergence of Capital Measurement and Capital Standards of July 1988, as reported by the Basle Committee on Banking Supervision. The Basle Accord has been implemented by the twelve member industrial countries participating in the Basle Committee on Banking Supervision under the auspices of the Bank for International Settlements, in Basle, Switzerland (Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States) as well as other countries that have assented to apply the principles of the Basle Accord. In the United States, the Banking Agencies implemented the Basle Accord through the promulgation of risk-based capital guidelines. See 12 CFR part 3, Appendix A (national banks); 12 CFR part 208, Appendix A (state member banks); 12 CFR part 225, Appendix A (bank holding companies); 12 CFR part 325, Appendix A (state nonmember banks); 54 FR 4168, January 25, 1989. Interim requirements became effective at the end of 1990, and final requirements will take effect at the end of 1992.

²As defined, risk-weighted assets include credit exposures contained in off-balance-sheet instruments.

on credit risk, institutions may have an incentive to substitute interest rate risk for credit risk in structuring their balance sheets. Recognizing this possibility, the Basle Committee on Bank Supervision, under the aegis of the Bank for International Settlements (BIS), has been working to address the treatment of interest rate risk.

The Banking Agencies are actively participating in that international effort. However, several factors suggest the need for developing a separate "domestic" approach for addressing interest rate risk. One consideration is that the time frame involved in developing and implementing an international standard is, as yet, uncertain. Accordingly, an international standard would, most likely, not be available to meet the deadline of June 19, 1993 specified in section 305 of FDICIA. Moreover, an international standard that is designed for a myriad of financial instruments, often present at only the largest and most internationally active banks, may be needlessly complex for many of the nearly 12,000 small and medium-size U.S. banks. Finally, once an international framework emerges for the assessment of interest rate risk, every country may need to tailor it to the specific characteristics and structure of its own banking system.

In view of these considerations, and pursuant to section 305 of FDICIA, the Banking Agencies will be proposing a system for incorporating an interest rate risk component into the current risk-based capital guidelines. The objective of this proposal is to make a bank's capital requirement responsive to significant

levels of IRR. The proposal is designed to ensure that banks with high levels of IRR have capital commensurate with that risk, thereby reducing the exposure of the federal depository institution insurance funds. The proposed approach uses a measure of interest rate risk that is consistent with -- although not identical to -- that being pursued internationally. As such, the measure should be adaptable to any international agreement that may emerge.

II. Interest Rate Risk - General Framework of Proposal

An underlying principle of the proposal for incorporating IRR into the risk-based capital guidelines is that a certain amount of IRR is inherent and appropriate in commercial banking. In addition, the proposal acknowledges that the level of IRR in banks is difficult to measure with a high degree of confidence. Finally, the approach takes into consideration the fact that, to date, IRR has not been a principal threat to the financial health of commercial banks. Accordingly, the proposal targets the identification of institutions with high or significant levels of risk. Institutions identified as having IRR exposure greater than a supervisor-determined threshold would be required to allocate additional capital to support their higher level of measured risk.

The proposal focuses on estimating the effect that changes in market interest rates might have on the net economic value of

an institution. Exposures would be measured in terms of the interest rate sensitivity of the net present value of a bank's on- and off-balance-sheet positions. Specifically, the change in an institution's net economic value attributable to IRR would be computed as the change in the present value of its assets minus the change in the present value of its liabilities and off-balance-sheet positions for an assumed 100 basis point parallel shift in market interest rates.

A measurement methodology using data submitted on an expanded Consolidated Report of Condition and Income (Call Report) schedule would be used to approximate the change in the present value of an institution's assets, liabilities and off-balance-sheet positions for the assumed change in rates. The methodology involves assigning risk weights to both on- and off-balance-sheet positions. The risk weights approximate the price volatility of the positions in relation to changes in interest rates and would be established by the Banking Agencies. The resulting estimate of the change in net economic value for the 100 basis point shift, expressed as a percent of total assets, would be used as the primary measure of an institution's level of IRR.

The proposed measurement system is designed to minimize reporting burdens while meeting the regulatory need for identifying basic asset and liability mismatches that can materially affect a bank's financial condition. The system is not designed to derive precise measures of IRR exposure, but

rather to provide an index that identifies relative orders of magnitude of IRR exposure among banks. Accordingly, the proposed measurement system is not intended to replace other, more sophisticated procedures that banks may use in their asset and liability management process.

Under the proposal, an institution with IRR exposure in excess of a threshold level would be required to allocate additional capital equal to the dollar amount of the estimated change in its net economic value that is in excess of that level. This would provide complete coverage of any incremental exposures above the established threshold. For example, if threshold levels of IRR exposure were set at 1.00 percent of total assets, an institution with a measured exposure of 1.50 percent of assets would be required to allocate a dollar amount of capital equal to 0.50 percent of total assets.

The distribution of the exposures of individual institutions across the banking industry would be used to help identify a threshold level of IRR. However, in identifying what constitutes the threshold level, the Banking Agencies will focus greater attention on what absolute level of IRR is consistent with safety and soundness. The amount of potential measurement error will also be considered. It is envisioned that the identified threshold level of IRR would remain relatively stable over time. With a stable definition of the threshold level of IRR, changing risk patterns within the industry would not cause shifts in the level of risk that would require capital coverage. Nevertheless,

the Banking Agencies may need to adjust periodically the definition of the threshold level of IRR in order to account for changing market conditions, improvements in the proposed measurement system, and other factors.

The amount of any additional capital required under the proposed quantitative approach would represent the minimum capital requirement for IRR assuming that adequate internal controls and management are in place. On-site reviews could lead to higher assessments for IRR than the proposed quantitative measure would suggest if an institution's specific positions differed sufficiently from those assumed by the measure. In addition, qualitative factors such as a bank's asset/liability policies, procedures, systems and management expertise would also be considered. To the extent that such qualitative factors are determined to be inadequate during the examination process, institutions may be required to hold additional capital beyond that implied by their quantitative measure and may also be required to correct any noted deficiencies.

Section 305(b)(3) requires each federal banking agency to establish reasonable transition rules to facilitate compliance with regulations issued under section 305. The Banking Agencies envision that their proposed regulation will specify implementation of the IRR component in phases over a suitable transition period. Once implemented, institutions would need to meet capital requirements for IRR contemporaneously with the reporting date.

A. Proposed Interest Rate Risk Measurement System

1. Overview

The methodology for measuring an institution's IRR exposure applies the principles of duration to a standard maturity gap report in order to approximate the net change in the economic value of the institution arising from a change in interest rates.³ Institutions would slot their assets, liabilities and off-balance-sheet positions into a maturity ladder report based upon their remaining maturities or nearest repricing dates. The positions reported in each maturity range would then be multiplied by an IRR weight that represents the interest rate sensitivity of the respective positions. The IRR weights would be established by the Banking Agencies and would be based on the modified duration of instruments with maturities, cash flows, coupons and yields that are assumed to be representative of the position being weighted.

Modified duration measures the sensitivity of the present value of a financial instrument to changes in market rates. Specifically, modified duration measures the percentage change in the present value of an instrument for small changes in yields. The mathematical relationship is as follows:

³The proposed measurement system was presented in preliminary form in "A Method for Evaluating Interest Rate Risk in U.S. Commercial Banks," Federal Reserve Bulletin, August 1991, p. 625-637.

$$\text{Percentage Change in Price} = - \text{Modified Duration} \times \frac{\text{BP change in yield}}{100}$$

The greater the duration of the instrument, the more sensitive is its value to changes in market rates.⁴

The duration-based risk weights used in the proposed measurement system are expressed in percentage terms, and the basis point change in rates is assumed to be 100 basis points. Therefore, the weighting of assets, liabilities and off-balance-sheet positions results in an approximation of the nominal change in the present value of the reported position for an assumed one percentage point change in rates. Netting these weighted positions both within and across time bands (weighted assets minus weighted liabilities plus (or minus) weighted net off-balance-sheet instruments) results in a "Net Risk-Weighted Position" that serves as a rough approximation of the nominal change in an institution's net economic value that would arise

⁴The duration of an instrument is the weighted average maturity of an instrument's cash flows, where the present values of the cash flows serve as the weights. It is calculated by first multiplying the time until the receipt of each cash flow by the ratio of the present value of that cash flow to the instrument's total present value. The sum of these weighted time periods is known as the Macaulay duration of the instrument. This measure can be modified to express the price sensitivity of an instrument to a given change in rates. This is known as modified duration. Modified duration is derived by dividing an instrument's Macaulay duration by the quantity $(1 + \text{Yield}/K)$ where K is the number of times per year that interest is compounded. This division adjusts the Macaulay duration for the noncontinuous compounding of interest and increases the accuracy of duration as a measure of interest rate sensitivity.

For small changes in rates, the percentage change in the value of an instrument is equal to minus duration times the percentage point change in rates. The minus sign reflects the inverse relationship of bond prices and interest rates.

from a one percentage point change in rates. This net risk-weighted position, expressed as a percent of total assets, is the primary quantitative measure that would be used to evaluate an institution's exposure to IRR.

The Banking Agencies recognize that the proposed measurement system may not provide a precise measure of IRR and that errors may exist.⁵ Nevertheless, several factors argue for a relatively simple measure of IRR over other, more complex methodologies. One factor is the potential for spurious precision that can be introduced by complex models. Often, the complexity of a methodology and the precision of the data collected are dominated by the underlying assumptions used to derive an IRR exposure measure. Even the most sophisticated measures of IRR require certain assumptions that can materially affect the results. For banks, many of these assumptions relate to assets and liabilities with embedded options that make their interest rate sensitivity difficult to estimate; the interest rate sensitivity of core deposits is an important example. The overriding influence of such assumptions suggests caution in trying to estimate absolute levels of IRR across the entire

⁵For example, the relationship between an instrument's duration and changes in value is exact only for infinitesimal changes in rates and is only approximate for larger changes in rates. Duration is only a linear approximation of interest rate sensitivity and its convexity limits duration's explanatory ability. Moreover, its use within the measurement system assumes parallel shifts in the yield curve. These and other factors can result in estimation errors of the change in economic value when compared to similar measures derived using more complex techniques.

industry using complex, but still generalized, measurement systems.

An additional factor supporting a relatively simple approach is the need to minimize reporting requirements while meeting regulatory needs. In general, bank supervisors do not need the same level of precision that bank management may need. The Banking Agencies also do not wish to become involved in the day-to-day operations of the institutions they regulate. Rather, regulators are concerned principally with identifying significant threats to a bank's solvency and understanding the nature of its business; they are less concerned with small changes to its earnings.

By focusing supervisory attention and capital requirements on banks with high levels of IRR, supervisors hope to avoid developing and administering data-intensive models. Although some estimation errors may exist under the proposed measurement system, the imprecision of the measure and the use of some underlying assumptions are not likely to mask the exposures of banks facing the highest risk or cause truly low-risk institutions to appear as having high levels of IRR. The most significant errors are expected to be introduced by the treatment of core deposits, for which no measure is precise. Accordingly, because of its simplicity, the proposed measurement system is not intended to replace other, more sophisticated procedures that banks use in their asset and liability management process.

2. Information Requirements

Table 1 illustrates the repricing schedule that could be used in the proposed IRR measurement system. [insert Table 1] Summary instructions for compiling this information in an expanded Call Report schedule are presented in the Appendix. Institutions would slot their interest bearing assets, interest bearing liabilities, demand deposits and off-balance-sheet items across six maturity ranges or time bands based on the instrument's remaining maturity or next repricing date. For illustrative purposes, lines for "Other Assets" and "Other Liabilities" are included in Table 1 to allow the schedule to "foot" to an institution's balance sheet (Call Report Schedule RC). However, only positions distributed across the time bands would be risk-weighted. All institutions would be expected to submit the proposed reporting schedule on a quarterly basis.

In order to lessen reporting burdens, no coupon data would be collected on the reported positions. Rather, assumptions regarding coupon rates on assets and liabilities and other features of financial contracts would be made by the Banking Agencies in developing the risk weights.

By definition, an instrument's modified duration is determined by the timing of the instrument's cash flows, which are a function of its maturity, coupon rate, amortization, and other factors. The cash flows of most bonds and commercial loans consist of periodic payments of interest, plus repayment of all

TABLE 1: INTEREST RATE RISK REPORTING SCHEDULE

REPORTING INSTITUTION

EXAMPLE BANK

REPORTING DATE

12/31/92

\$ Thousands

	REMAINING TIME BEFORE MATURITY OR INTEREST RATE ADJUSTMENT					
	TOTAL	UP TO 3 MONTHS	> 3 MO. ≤ 1 YR.	> 1 YR. ≤ 3 YRS	> 3 YRS ≤ 7 YRS	> 7 YRS ≤ 15 YRS
I. INTEREST-BEARING ASSETS						
1. Cash & Balances Due	\$13,200	\$13,200				
2. Securities (Including Trading)						
a) Amortizing	\$42,169		\$1,950	\$4,050	\$4,332	\$12,907
b) Non-Amortizing	\$32,099	\$1,234	\$4,478	\$7,533	\$8,654	\$5,250
c) Deep Discount Coupons						
d) High Risk Mortgage Securities	\$3,000					
3. Fed. Funds Sold & Sec Purch For Resale	\$500	\$500				
4. Loans, Leases & Acceptances						
a) Amortizing	\$37,053	\$1,536	\$10,444	\$10,812	\$6,442	\$5,569
b) Non-Amortizing	\$52,766	\$10,202	\$13,510	\$12,791	\$6,359	\$6,854
5. Total Interest Bearing Assets	\$180,787	\$26,672	\$30,382	\$35,186	\$25,787	\$30,580
II. ALL OTHER ASSETS	\$2,463					
III. TOTAL ASSETS	\$183,250					
IV. INTEREST-BEARING LIABILITIES						
1. Interest-bearing Deposits						
a) NOW Accounts	\$27,405		\$19,183	\$8,222		
b) MMDA Accounts	\$26,270		\$18,389	\$7,881		
c) Savings	\$14,398			\$10,079	\$4,319	
d) Time Deposits	\$71,023	\$23,083	\$42,853	\$5,087		
2. Fed. Funds Purch & Sec Sold For Repurch.						
3. Other Borrowed Funds	\$127				\$127	
4. Total Interest-Bearing Liabilities	\$139,223	\$23,083	\$80,425	\$31,269	\$4,446	
V. NONINTEREST-BEARING LIABILITIES						
1. Demand Deposits	\$26,611	\$4,050	\$14,578	\$7,983		
2. Other Liabilities	\$860					
VI. TOTAL LIABILITIES	\$166,694					
VII. EQUITY CAPITAL	\$16,556					
VIII. NET OFF-BALANCE-SHEET POSITIONS						
1. Amortizing		\$100		(\$100)		
2. Non-Amortizing			\$50	\$50		
MEMORANDA	Carrying Value	Market Value	Mkt Value +100 BPs	Mkt Value -100 BPs		
High Risk Securities Evaluated:	\$2,000	\$2,000	\$2,160	\$1,800		
High Risk Securities Not Evaluated:	\$1,000					

principal at maturity. Mortgages and consumer loans, in contrast, generally amortize; that is, their periodic payments include both principal and interest. Still other instruments such as zero coupon bonds defer all payments (both principal and interest) until maturity. These distinctions can cause the durations of instruments with similar maturities to be significantly different.

For example, a 30-year Treasury bond with a 10 percent semiannual coupon and a yield of 10 percent (priced at par) has a modified duration of about 9.5 years. However, the duration of a 30-year, 10 percent amortizing mortgage yielding 10 percent (assuming no prepayment) is about 8 years, but could be as short as 4-6 years if common levels of prepayment are considered. The modified duration of a 30-year zero coupon bond yielding 10 percent is 28.6 years because the holder must wait for the instrument's maturity to receive its entire cash flow.⁶

To capture the effect of these different payment streams, the report categorizes all loans, securities, and off-balance-sheet items into one of three groups according to their payment characteristics: (1) amortizing instruments that pay both principal and interest periodically, (2) non-amortizing instruments that involve periodic payments of interest and the payment of principal at maturity, and (3) deep discount

⁶While the Macaulay duration for a 30-year zero coupon bond is 30, its modified duration is calculated as the value $(\text{Maturity} / (1 + \text{Yield} / \text{Number of Compounding Periods}))$. Since zero coupon yields are quoted in terms of semi-annual yields the modified duration for this example instrument is $(30 / (1 + .10/2))$.

instruments with either no periodic interest payments (zero coupons and other securities quoted on a discount basis) or interest coupons of less than 3 percent. Interest bearing balances not specifically distributed into one of these categories are almost always non-amortizing and would be treated as such. Securities held in Trading Accounts would be reported together with the institution's investment securities.

To minimize reporting burdens, the balances of loans and most types of securities would be distributed across the time bands on the basis of their remaining contractual maturities or repricing dates. Anticipated prepayments on amortizing instruments, such as residential mortgages and mortgage pass-through securities, would be incorporated in the duration risk weights using standardized assumptions and market expectations. Only mortgage derivative products would be treated differently. Under the recently adopted Federal Financial Institution Examination Council (FFIEC) policy statement on securities activities, mortgage derivative products are defined as 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. In general, mortgage derivative products would be reported differently depending on whether they were "high-risk" or "nonhigh-risk." Securities that meet the definition of a "high-risk mortgage security" under

current supervisory policies on securities activities, regardless of acquisition date, would not be slotted across the time bands of the reporting schedule.⁷ Only their total book value would be reported in the main body of the schedule. A special Memorandum item (described in Section II.A.4. below) would be used to collect information on the interest rate sensitivity of these instruments. All other mortgage derivative products would be classified as "nonhigh-risk" and would be distributed across the time bands according to their current average life as

⁷Effective February 10, 1992 the federal banking 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 securities" which must be reported as securities held for sale or for trading. A "high-risk mortgage security" is defined as any mortgage derivative product that, at the time of purchase, or at a subsequent date, meets any of the following tests:

- (1) Average Life Test - The mortgage derivative product has an expected weighted average life greater than 10.0 years.
- (2) Average Life Sensitivity Test - The expected weighted average life of the product:
 - (a) extends by more than 4.0 years, assuming an immediate and sustained shift in the yield curve of plus 300 basis points, or
 - (b) shortens by more than 6.0 years, assuming an immediate and sustained shift in the yield curve of minus 300 basis points.
- (3) Price Sensitivity Test - The estimated change in the price of the mortgage derivative product is more than 17 percent, due to an immediate and sustained shift in the yield curve of plus or minus 300 basis points.

In general, a mortgage derivative product that does not meet any of the three tests is considered to be a "nonhigh-risk mortgage security."

calculated by bank management.⁸

3. Liability Reporting and Core Deposits

All time deposits and other liabilities with well-defined maturities would be distributed across the time bands of Table 1. However, the indefinite maturities of core deposits (demand deposits, negotiable order of withdrawal (NOW) accounts, money market deposit accounts (MMDAs), and savings deposits) pose several measurement problems. From a liquidity standpoint, such funds can be viewed from two extremes. On the one hand, they can be viewed as very short-term funds since they can be withdrawn at any time. On the other hand, an institution's core deposit base can act as a stable long-term source of funds. From a repricing viewpoint the effective interest rate sensitivity of core deposits lies somewhere between these two extremes. Although they generally move with short-term market indices, interest rates on MMDAs and NOW accounts tend to lag changes in market rates and can vary from bank to bank according to each institution's geographic location, pricing strategies, and depositor base. Moreover, while demand deposits involve no explicit payment of interest, the adjustment of earnings credit

⁸All underlying assumptions used in calculating the average life of these instruments must be reasonable and available for examiner review. For example, if an institution's prepayment assumptions differ significantly from the median prepayment assumptions of several major dealers as selected by examiners, the examiners may use these median prepayment assumptions in determining the appropriate average life of the instrument.

rates on compensating balances, minimum balances and service charges indicates the periodic repricing of implicit liability costs.

Because of the uncertain and unique interest rate sensitivities of each bank's core deposits, the proposed measurement system employs uniform rules for distributing these deposits across the time bands, while still providing institutions with some flexibility. The rules would specify the longest time band that could be used for each type of core deposit and a maximum percent that could be slotted into that time band. Institutions would slot core deposits according to their individual assumptions and experience, subject to the following constraints:

(i) Under the assumption that transaction accounts fund a bank's non-interest-bearing balances and currency and coin, both this cash balance and an equal amount of demand deposits would be slotted in the shortest time band. If demand deposit balances were insufficient, other core deposits would be used.

(ii) Residual demand deposit, MMDA and NOW account balances could be distributed across any of the first three time bands provided that no more than 30 percent of the total of these balances were slotted in the "1-3 year" time band.

(iii) Savings account balances could be distributed across any of the first four time bands provided that no more than 30 percent of the total of these balances were slotted in the "3-7 year" time period.

4. Off-balance-Sheet Positions and "High Risk" Securities

Off-balance-sheet positions would be summarized in the lines provided for "Net Off-balance-Sheet Positions" on the proposed IRR reporting form. As with bank assets, off-balance-sheet items would be grouped into amortizing and non-amortizing categories on the basis of their underlying instruments. Futures, forwards, options and firm commitments to buy or sell loans and securities would be reported using one entry in the time band corresponding to the maturity of the underlying instrument and the appropriate sign: positive for a long position and negative for a short position. In general, the value of options would be reported using their delta equivalent value. This value is equal to the option's current delta multiplied by its principal or notional value.⁹

Interest rate swaps and options on swaps would be reported based on notional principal values using two separate entries: one entry in the time band corresponding to the next repricing period of the floating side of the swap and an offsetting entry in the time band corresponding to the maturity of the swap. The sign of each entry would denote what the bank receives (positive sign) and what it pays (negative sign). Options on interest rate

⁹The delta is the ratio of the change in the value of the option to the change in price of the underlying instrument. For example, if the price of a security changed by 0.05 for a 1 basis point change in market rates and the value of an option on that security changed by 0.025, the delta for this option would be $0.025/0.05$ or 0.5. Delta can take values ranging from 0 to 1.

swaps would be reported similarly using delta equivalent values. The proposed reporting treatment for off-balance-sheet instruments is detailed in the Appendix.

Under revised supervisory policies on securities activities that became effective on February 10, 1992, institutions must evaluate at least quarterly whether their holdings of high-risk mortgage securities reduce interest rate risk. The reporting form takes advantage of the availability of this information by allowing an institution to report, in a memorandum item, the current market value of high-risk mortgage derivative products along with their estimated market values for a 100 basis point increase and decrease in market rates. Such data would be used directly in calculating an institution's IRR exposure.

Mortgage derivative securities that were purchased prior to February 10, 1992 and that meet the high-risk tests are subject to previously existing supervisory policies and are, therefore, not subject to the quarterly IRR risk evaluation criteria. For such holdings, institutions would have the option to: (1) report the interest rate sensitivity of these holdings in a similar fashion as post-February 10, 1992, purchases, or (2) report only the current book value of those securities. Balances reported under the second option would be assumed to have price sensitivity characteristics similar to long-dated, deep discount instruments and would receive the same risk weight that is applied to long-term, deep discount instruments. For illustrative purposes, the example bank in Table 1 has reported

interest rate sensitivity data on \$2 million in high-risk mortgage derivative securities and has elected to report only the current book value for \$1 million of securities that would otherwise meet the current high-risk tests but were purchased prior to February 10, 1992.

5. Derivation of Risk Weights

In the proposed measurement system, each position reported on the IRR repricing schedule (summarized in the top panel of Table 2) is multiplied by a risk weight representing its price sensitivity or modified duration. [insert Table 2] The system employs four sets of risk weights: one for each of the three types of assets (amortizing, non-amortizing, and deep discount) and one for all liabilities (middle panel of Table 2).

The hypothetical instrument used to estimate the modified durations for amortizing instruments with remaining contractual maturities beyond 15 years would be a 30-year mortgage pass-through security with the composite characteristics (gross and net coupons, original and remaining maturity, etc.) of currently outstanding 30-year government and conventional mortgage pass-through securities. Similarly, a composite 15-year mortgage pass-through security would be used to estimate the risk weights for amortizing instruments with maturities between 7 and 15 years. For instruments with maturities less than 7 years, a standard monthly amortizing instrument would be used that had:

TABLE 2: INTEREST RATE RISK WEIGHTING CALCULATIONS

BALANCE SHEET SUMMARY (from reporting schedule)	REMAINING TIME BEFORE MATURITY OR INTEREST RATE ADJUSTMENT						
	TOTAL	UP TO 3 MONTHS	> 3 MO. ≤ 1 YR.	> 1 YR. ≤ 3 YRS	> 3 YRS ≤ 7 YRS	> 7 YRS ≤ 15 YRS	OVER 15 YRS
1. TOTAL ASSETS	\$183,250						
2. Other Assets & High Risk Sec Evaluated	\$4,463						
3. Total Interest Bearing Assets:	\$178,787	\$26,672	\$30,382	\$35,186	\$25,787	\$30,580	\$30,180
4. Amortizing Assets:	\$79,222	\$1,536	\$12,394	\$14,862	\$10,774	\$18,476	\$21,180
5. Non-Amortizing Assets:	\$98,565	\$25,136	\$17,988	\$20,324	\$15,013	\$12,104	\$8,000
6. Deep Discount Assets:	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7. High Risk Sec. Not Evaluated:	\$1,000						\$1,000
8. TOTAL LIABILITIES	\$166,694						
9. Other Liabilities & DDAs:	\$27,471	\$4,050	\$14,578	\$7,983			
10. Interest Bearing Liabilities:	\$139,223	\$23,083	\$80,425	\$31,269	\$4,446	\$0	\$0
11. NET WORTH (Gap)	\$16,556	(\$461)	(\$64,621)	(\$4,066)	\$21,341	\$30,580	\$30,180
12. OFF-BALANCE-SHEET POSITIONS:							
13. Amortizing OBS Items:		\$100	\$0	(\$100)	\$0	\$0	\$0
14. Non-Amortizing OBS Items:		\$0	\$50	\$50	\$0	\$0	\$0

IRR WEIGHTS

15. Amortizing Assets:	0.08%	0.25%	0.90%	2.15%	3.20%	4.30%
16. Non-Amortizing Assets:	0.12%	0.55%	1.75%	3.85%	6.60%	8.90%
17. Deep Discount Assets:	0.12%	0.60%	1.90%	4.75%	10.50%	21.40%
18. Liabilities:	0.12%	0.55%	1.80%	4.10%	7.50%	11.00%

WEIGHTED POSITIONS

19. Weighted Amortizing Assets:	\$1,899.58	\$1.23	\$30.99	\$133.76	\$231.64	\$591.23	\$910.74
20. Weighted Non-Amortizing Assets:	\$2,573.63	\$30.16	\$98.93	\$355.67	\$578.00	\$798.86	\$712.00
21. Weighted Deep Discount Assets:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22. Weighted High Risk Sec. Not Evaluate	\$214.00						\$214.00
23. Total Risk Weighted Assets:	<u>\$4,687.22</u>	<u>\$31.39</u>	<u>\$129.92</u>	<u>\$489.43</u>	<u>\$809.64</u>	<u>\$1,390.10</u>	<u>\$1,836.74</u>
24. Total Risk Weighted Liabilities:	<u>\$1,443.90</u>	<u>\$32.56</u>	<u>\$522.52</u>	<u>\$706.54</u>	<u>\$182.29</u>	<u>\$0.00</u>	<u>\$0.00</u>
25. Risk Weighted Off-Bal.-Sheet Pos.:	<u>\$0.33</u>	<u>\$0.08</u>	<u>\$0.28</u>	<u>(\$0.02)</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
26. High Risk Sec. Evaluated (+100 BPs):	<u>(\$160.00)</u>						
27. Net Risk Weighted Position	\$3,083.65	(\$1.09)	(\$392.32)	(\$217.13)	\$627.36	\$1,390.10	\$1,836.74

IRR MEASURE

Net Risk Weighted Position As a Percent of Assets	=	1.68%	=	Level of IRR
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(1) an original maturity equal to the end point of the specific time band, (2) a remaining maturity equal to the midpoint of the time band, and (3) a coupon and yield equal to the effective yield on the industry's earning assets.

An important consideration in estimating the IRR of amortizing instruments is the potential for prepayments. In calculating the modified durations or risk weights for amortizing instruments with maturities greater than 7 years, market consensus prepayment estimates for the hypothetical composite instrument would be used to adjust the cash flows. Amortizing instruments with maturities of less than 7 years would be assumed to be consumer installment loans and adjustable rate mortgages with prepayment profiles that only marginally influence their

modified duration.¹⁰ Under the proposed measurement system, the risk weights for amortizing instruments may be adjusted in the event of significant changes in market interest rates, outstanding coupon distributions, and other factors.

The risk weights or modified durations for the non-amortizing assets are 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 the effective yield on the industry's earning assets. The deep discount risk weights are based on the modified durations of a zero coupon instrument with the same yield. Only one set of risk weights would be used for liabilities -- the modified durations for a semi-annual interest bearing instrument with an assumed coupon and yield

¹⁰Prepayment estimates represent the expected rate of prepayment over the life of the mortgage assuming no changes in current interest rates. In general, consensus prepayment estimates for 15-year government and conventional pass-through securities would be used to derive prepayment expectations for the 7-15 year amortizing asset and estimated prepayments for 30-year mortgage pass-through securities would be used to derive expected prepayments for the over 15 year amortizing asset.

The amortizing risk weights shown in Table 2 for the two longest time bands are the modified durations of hypothetical mortgage securities that were constructed using data on outstanding mortgage pass-through securities, consensus prepayment estimates and market prices as of May 29, 1992. Specifically, the hypothetical instrument used for the greater-than-15-year time band is a 9 percent mortgage security with a gross coupon of 9.7 percent, an original maturity of 30 years, a remaining maturity of 25.4 years and an assumed conditional prepayment rate (CPR) of approximately 12 percent. The hypothetical instrument used for the 7-15 year time band is an 8.5 percent mortgage security with a gross coupon of approximately 9.12 percent, an original maturity of 15 years, a remaining maturity of 12.2 years and an assumed conditional prepayment rate of approximately 14 percent. No prepayment rates were used in calculating the amortizing risk weights under 7 years.

equivalent to the effective yield on interest bearing liabilities.¹¹

6. Calculation of the Interest Rate Risk Measure

Under the proposed measurement system, the weights are expressed in percentage points to approximate the percentage change in the value of the hypothetical instrument for a 100 basis point change in rates. For example, the \$1.536 million of amortizing assets reported in the up-to-3-month time band (top panel of Table 2) when multiplied or "weighted" by 0.0008 (or .08% as shown in the middle panel) results in an estimated \$1,230 change in the present value of that position. If the estimated dollar change is assumed to be in response to a 100 basis point increase in rates, this estimated amount would represent a decline in the present value of those assets. Conversely, the estimated dollar change would represent an increase in present value for an assumed 1 percent decline in rates. The sum of the results of all such multiplications produces an overall duration-based estimate of the institution's interest rate risk: the reduction (increase) in the present value of all positions that would follow a 1 percentage point increase (decline) in

¹¹The specific non-amortizing and deep discount risk weights shown in Table 2 are based on an assumed 10.0 percent coupon, which approximates the average effective yield on earning assets at all commercial banks during 1991. For the liability weights in Table 2, a 7.25 percent coupon is assumed, which approximates the effective yield on interest bearing liabilities at all commercial banks during 1991.

market interest rates. From a supervisory perspective, the past volatility of interest rates on U.S. Treasury securities of various maturities suggests that a 100 basis point change in market rates would cover 1 to 1.5 standard deviations of quarterly changes in market yields, depending on the time period chosen for the analysis.¹²

As shown in Table 2, a 1 percentage point increase in market rates is estimated to reduce the present value of the example bank's assets by \$4.687 million (bottom panel, left hand column), lower the present value of its liabilities by \$1.444 million, and reduce the value of its off-balance-sheet items by \$330. The interest rate sensitivity data reported for high-risk mortgage derivative products suggests that their value would increase by \$160,000, given a 1 percentage point increase in rates. The net result, called the "Net Risk-Weighted Position" in Table 2, is an estimated decline of \$3.083 million in the net economic value of this institution. This net risk-weighted position, when expressed as a percent of assets, is the primary measure of the

¹²The standard deviations of quarterly changes in U.S. interest rates for different time periods are as follows.

<u>Remaining Maturity</u>	<u>Jan. 1962 - Dec. 1990 Standard Deviation Basis Point Change</u>	<u>Jan. 1984 - Dec. 1990 Standard Deviation Basis Point Change</u>
3 Month	125 bp	69 bp
1 Year	115 bp	79 bp
3 Year	91 bp	80 bp
5 Year	81 bp	78 bp
10 Year	68 bp	73 bp
30 Year	na	68 bp

level of interest rate sensitivity for an institution. When calculated for all banks, it also provides a general indication of the industry's sensitivity to changing rates and can serve as a basis for identifying those banks that appear to have the highest exposures.

B. Identifying Institutions With Significant Interest Rate Risk

The proposed approach recognizes that a certain amount of IRR is inherent and appropriate in commercial banking. In addition, it acknowledges that the level of IRR in banks is difficult to measure with a high degree of confidence. Finally, the approach takes into consideration the fact that, to date, IRR has not been a principal threat to the financial health of commercial banks.

In view of these considerations, it appears appropriate first to consider the level of IRR exposure taken by the industry and then to determine a threshold level of measured exposure that should be considered "high" and should be supported by a capital charge. This approach would require additional capital only for those institutions taking relatively larger risks and would avoid imposing a costly reporting and risk monitoring system on the commercial banking system.

The present Call Report contains insufficient detail to produce an industry distribution of IRR sensitivities that would be as accurate as one produced using the proposed measurement

system. For example, maturity and repricing data currently are reported for only four time bands, and the longest band contains all positions repricing in more than five years. In addition, little information is available on off-balance-sheet items. These constraints, and similar ones regarding information about the classification of assets into various cash flow categories, require that certain assumptions be made in order to use existing information. Available Call Report data has been used under these assumptions to develop rough industry distributions in order to identify, on a preliminary basis, the relative orders of magnitude of IRR exposure across the industry.

The distribution of the industry's exposure to changing rates, like the measured exposure of individual banks, is dependent upon the treatment of core deposits. Using the core deposit slotting rules outlined in Section II.A.3. above, an industry distribution of individual bank exposures has been constructed using each bank's estimated net risk-weighted position expressed as a percent of total assets (Chart 1).

[insert Chart 1] The industry's median institution is estimated to have a positive net risk-weighted position and therefore appears to have assets with maturities slightly longer than those of its liabilities, making the bank slightly exposed to rising interest rates. As a percentage of assets, its economic value would change an estimated 0.52 percent for each percentage point change in rates.

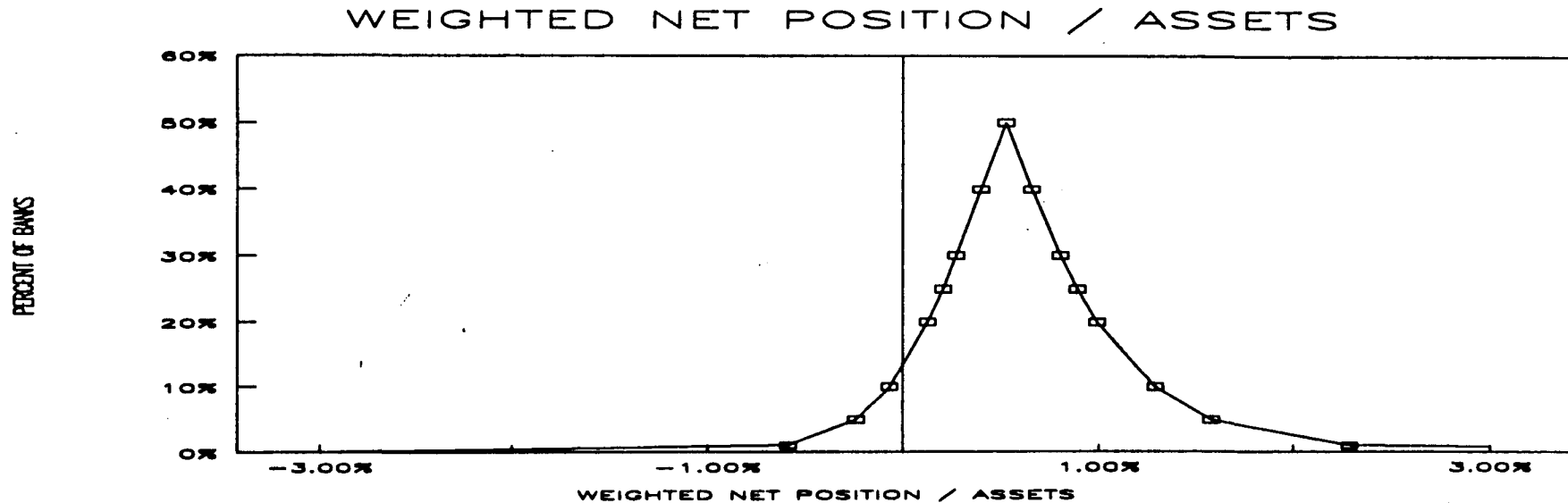
To recognize exposures to both rising and declining rates,

CHART 1

ESTIMATED LEVELS OF IRR AS OF 12/31/91

11,916 Banks

Core Deposit Assumptions = Cash Offset With DDA's; MMDA's, Nows & DDA's Up to 1-3 Yr.; Savings Up to 3-7 Yr.
No More Than 30% Of Core Deposit Balances In The Maximum Allowable Time Band



PERCENTILES	1%	5%	10%	20%	25%	30%	40%	50%	60%	70%	75%	80%	90%	95%	99%
IRR LEVELS	-0.59%	-0.24%	-0.07%	0.13%	0.20%	0.27%	0.40%	0.52%	0.65%	0.80%	0.89%	0.99%	1.30%	1.58%	2.29%
MEAN = 0.58%								STD. DEV. = 0.58%							

institutions with the highest levels of IRR would be identified in both tails of the industry distribution curve using an absolute level of IRR exposure as measured from zero.

Considering the potential for measurement error, the supervisory experience to date with IRR, and the absolute level of IRR which would be considered "high" on the basis of safety and soundness considerations, a risk-weighted position of 1.0 percent of assets, on an absolute basis, may be a reasonable threshold at which to begin assessing capital. The sign of the risk-weighted position would indicate whether an institution is exposed to rising or falling interest rates. For example, a risk-weighted position of -1.0 percent would indicate an exposure to falling interest rates, while a risk-weighted position of +1.0 percent would indicate an exposure to rising rates. The estimated distribution in Chart 1 suggests that a cut-off point at the 1 percent level would affect about 20 percent of the industry with virtually all of the institutions affected being exposed to rising rates. It is expected, however, that most of these institutions already have sufficient capital in excess of regulatory minimums to meet their IRR requirements without raising additional funds.

C. Capital Requirements for IRR

Once identified, institutions with high levels of IRR would be required to cover their "excess" exposure by allocating

capital in the amount of that excess. For threshold levels of IRR defined at 1 percent of assets, a bank with a measured IRR exposure of 1.68 percent (Table 2) would be required to allocate capital sufficient to compensate for the estimated change in economic value above 1 percent of assets. Its IRR capital requirement would be calculated as shown below:

$$\begin{array}{rclcl}
 \text{Risk Measure} & - & \text{Threshold Level} & = & \text{Excess Position} \\
 1.68\% & - & 1.00\% & = & .68\% \text{ of total assets} \\
 \\
 \text{Excess Position} & \times & \text{Total Assets} & = & \text{Additional Capital Required} \\
 .68\% & \times & \$183,250,000 & = & \$1,246,100
 \end{array}$$

It is proposed that any capital requirement for IRR be based on Tier 1 capital rather than total capital since subordinated debt, a significant component of Tier 2 capital, is incorporated into the measurement of an institution's IRR exposure. In addition, it is proposed that any capital allocated for IRR would not be available for meeting other risk-based capital requirements not related to interest rate risk. However, because risk-based capital components for other types of risk are being considered, the Banking Agencies would retain the flexibility to revisit this proposal and other aspects of the risk-based capital guidelines in the future.

D. Supervisory Application of the Risk Measure

Bank supervision entails both off-site surveillance and on-site examinations. If adopted, the procedures described herein for measuring interest rate risk would enable bank supervisors to screen banks off-site to identify institutions with relatively high levels of measured interest rate risk and to evaluate the institutions' level of capital adequacy. Because the procedures are relatively simple, banks could monitor their own positions and their continuing conformance to capital standards. Indeed, under the proposal, banks would be expected to maintain sufficient capital to cover their IRR and other requirements on a daily basis.

Additional capital requirements derived under the proposed measurement system would be regarded as the minimum capital required for IRR and would be subject to examiner review. Higher assessments would be possible if a bank's specific positions differed sufficiently from those assumed in the measurement system. Such adjustments might be particularly appropriate in the case of high-risk mortgage derivative products. In general, institutions would be expected to demonstrate the risk-reducing properties of these holdings using more sophisticated measurement systems than those entailed in the proposal. Failure to demonstrate such properties could result in the disallowance of their use in computing the institution's IRR exposure for capital adequacy purposes.

Qualitative factors such as a bank's asset/liability policies, procedures, systems, and management expertise would

also be considered as part of the examiner review. To the extent that such qualitative factors are determined to be inadequate during the examination process, institutions could be required to allocate additional capital beyond that implied by their quantitative measure and could also be required to correct or strengthen their practices.

Supervisors would also use the proposed measurement system as a means of allocating examination resources. During an examination of any commercial bank, examiners would use the interest rate risk measure as an indicator of how they should allocate their time and resources. Institutions with apparently high interest rate risk would be more likely to receive more detailed reviews of their asset and liability management procedures than would those with lower risk profiles.

E. Foreign Currency Positions

For banks that have non-U.S. dollar denominated financial instruments, it is proposed that such positions be converted to U.S. dollars and reported along with all other on- and off-balance-sheet positions on the same reporting form. Each currency would be converted into the equivalent U.S. dollar amount, using market exchange rates prevailing on the reporting date.

The Banking Agencies seek comment on the complete degree of offsetting among instruments in different currencies that is

implied in this treatment. The issue here is whether different currencies exhibit broadly similar interest rate movements with any degree of regularity, such that opposing interest rate positions in different currencies could be regarded as hedging one another. An exact measurement based on the correlation of all rates in all currencies could be extremely complex and difficult to incorporate into the measurement system. A conservative solution would be to permit no offsetting between positions in different currencies and require separate reporting of "significant" positions denominated in foreign currencies. Such a solution may be overly harsh, as it implies that interest rate movements in different currencies demonstrate perfect negative correlation. On the other hand, the proposed approach of allowing full offsetting may be too generous, by implying that rates have perfect positive correlation.

F. Issues For Consideration

The Banking Agencies request comment on all aspects of the proposal for incorporating IRR into the risk-based capital guidelines, including comments on the costs and benefits of this proposal, the estimation methodology and the manner in which additional capital would be required.

In addition, the Banking Agencies request specific comments on the following topics:

Comment 1: The proposed IRR reporting schedule employs six

time bands and three cash flow categories. The Banking Agencies request comment on the reporting burden entailed in slotting assets (both loans and securities) and liabilities among the six time bands and three cash flow categories.

- (a) Does the reporting burden increase substantially if the number of time bands is increased to improve the availability of data for both regulatory and internal bank management purposes?
- (b) Would the reporting burden be reduced if more specific cash flow categories were used instead of the three broad categories of amortizing, non-amortizing, and deep discount?
- (c) What reporting burden would be imposed by collecting average coupon and yield data?
- (d) What reporting burden would be imposed by having institutions report positions using daily, weekly, or monthly average balances rather than the proposed quarter-end balances?

Comment 2: In the proposed measurement system, the risk weights for amortizing instruments are developed from composite instruments and consensus prepayment expectations. Having institutions report their own estimates of the expected cash flows on these instruments might improve the accuracy of the proposed measure and could eliminate the need for separate amortizing risk weights.

- (a) Would institutions prefer to report their own

anticipated cash flows, average lives, or durations on certain types of assets rather than reporting data based on an instrument's remaining contractual maturity or its next repricing period?

- (b) In this context, to what extent can institutions estimate the expected cash flows for consumer loans, home equity loans, and other assets where prepayment expectations are difficult to obtain?
- (c) If institutions are permitted to use their own cash flow estimates for reporting, what types of documentation and analysis should be required to support those estimates?

Comment 3: Under the proposed system, trading account assets would be reported with investment securities.

- (a) To what extent should such assets be reported separately and treated differently by, for example, limiting their ability to hedge nontrading positions?
- (b) Is a separate treatment for off-balance-sheet instruments that are held for trading purposes or held on an intermediary basis necessary in order to distinguish them from instruments used to hedge nontrading positions?

Comment 4: The proposed core deposit slotting rules specify the longest time band that could be used to slot each type of core deposit and the maximum allowable amount that could be slotted into that time band.

- (a) Do the proposed slotting rules provide sufficient flexibility to reflect an institution's actual core deposit repricing behavior? If not, how should the rules be devised to reflect repricing behavior while limiting the potential for unrealistic assumptions being used to reduce additional capital charges?
- (b) How do the implied liability costs of banking services affect the interest sensitivity of core deposits?

Comment 5: The reporting format used for off-balance-sheet items (described in the Appendix) involves a one-legged reporting approach for futures, forwards and options, and a two-legged reporting approach for interest rate swaps.

- (a) To what extent would reporting burdens be reduced if a one-legged reporting approach for interest rate swaps were used? Such an approach would eliminate the floating-rate leg under the assumption that swaps are sufficiently short-term and would receive small risk weights.
- (b) To what extent would reporting burdens be increased if a two-legged approach for futures, forwards, and options were used? Such an approach would add an offsetting leg at the settlement date/exercise date.

Comment 6: The proposed measurement system specifies the use of delta equivalent values in reporting options and allows this reporting framework for interest rate caps and floors.

- (a) What is the reporting burden involved in using delta equivalent values in reporting options?
- (b) Are institutions able to report interest rate caps and floors as a series of options using delta equivalent values?
- (c) Should institutions be allowed to use options pricing models to estimate the market value changes of options positions in a manner similar to that proposed for high-risk mortgage securities? For example, institutions could value options transactions (e.g., caps, floors, and options) for interest rate changes of plus or minus 100 basis points holding volatility constant.

Comment 7: How should mortgage servicing rights be treated in the proposed measurement system?

Comment 8: Should an exemption from the proposed interest rate risk test be allowed for institutions which can clearly be identified as having low interest rate risk?

- (a) If an exemption is granted, what alternative measurement methodology could be used to determine low interest rate risk? Please provide quantitative and analytical support for the method recommended.
- (b) How often should an institution have to perform the exemption test?
- (c) How could the concept of static gap be used to develop certain thresholds that would, in turn, be used to

determine whether an institution is exempt from reporting requirements?

Comment 9: In the proposed measurement system, the interest rate risk weights are developed from composite instruments.

- (a) What assumptions should be used in developing the interest rate risk weights?
- (b) Should the risk weights be adjusted to account for the reduced volatility of yields on longer term instruments? This adjustment could be done by scaling down the risk weights as maturity lengthens.
- (c) What changes in market conditions or other factors would require revision of the risk weights? How could such revisions be incorporated as an automatic mechanism in the proposed measurement system?

Comment 10: As proposed, the IRR measure uses the following conceptual framework:

$$\begin{aligned} (Da \times \$Assets) - (Dl \times \$Liabilities) &= (De \times \$Equity) \\ &= \text{net risk-weighted position} \end{aligned}$$

Where: Da = Duration of Assets
 Dl = Duration of Liabilities
 De = Duration of Equity

Under this measure, the net risk-weighted position increases as a bank's capital ratio grows. Therefore, to the extent that an institution is required to hold additional capital to support high levels of IRR, this additional capital will have the net result of marginally increasing the institution's measured IRR exposure. While this effect is

undesirable and correctable, its significance may be relatively small and its impact may be limited to those institutions with IRR exposures close to the defined threshold level of risk. The effect could be corrected by "normalizing" each institution's risk-weighted liabilities (lower panel of Table 2) by the following factor prior to calculating the institution's net risk-weighted position.

$$\text{Adj. RWL} = \text{RWL} \times (\text{A/L}) \times \text{s}$$

Where: Adj. RWL = Adjusted Risk-weighted Liabilities
 RWL = Risk-weighted Liabilities
 A = total assets
 L = total liabilities
 s = the industry average ratio of
 total liabilities to total assets.

The effect of this adjustment is to assign all institutions with the same durations of assets and liabilities an identical risk measure by slightly increasing the measure of institutions with net worth ratios lower than the industry average and slightly reducing the measure for those with higher than average ratios. Does the added precision provided by this adjustment merit the additional complexity introduced by its use?

Comment 11: The proposal uses the regulatory parameters of an assumed 100 basis point change in interest rates and a plus or minus 1 percent ratio for the net risk-weighted position as a percentage of assets for identifying outliers.

(a) Is the assumed 100 basis point change in rates

sufficient in light of the historical volatility of interest rates, the quarterly reporting time frame, and the relative complexity of alternative assumptions? If not, what change in rates should be assumed and what adjustments would need to be made to the proposed measurement system?

- (b) On a preliminary basis, does the proposed plus or minus 1 percent ratio for the net risk-weighted position as a percent of assets entail sufficient supervisory coverage? If not, what level of exposure should be covered?

Comment 12: Are there other ways, besides additional capital charges, to address IRR and still meet the requirements of section 305 of FDICIA?

Comment 13: Under the proposal, data would be collected and risk measured for individual banks. However, it must also be recognized that many bank holding companies manage their interest rate risk at levels other than individual banks by offsetting positions held by one bank with positions of another bank or nonbank affiliate. In addition to reviewing individual bank positions, to what extent should the Banking Agencies also consider consolidated positions of the parent holding company or, alternatively, the aggregate position of only its affiliated banks?

Comment 14: As discussed in Section II.E., how should instruments denominated in different currencies be treated

in the proposed measurement system?

III. Concentration of Credit Risk

As with interest rate risk, section 305 requires each federal banking agency to revise its risk-based capital guidelines to take adequate account of concentration of credit risk. Currently, this risk is considered when performing an overall evaluation of an institution's capital adequacy. In making this revision, the Banking Agencies must consider an appropriate definition for concentrations and must also assess whether current risk-based capital guidelines take adequate account of concentration of credit risk. In this regard, the Banking Agencies seek industry comments on the following questions and issues:

Comment 15: What factors should be taken into account in defining concentration of credit risk for risk-based capital purposes-- e.g. industry, geography, collateral, loan type or all of these characteristics?

Comment 16: How should risk-based capital guidelines be revised, if at all, to take adequate account of concentration of credit risk?

Comment 17: Should there be a requirement for additional capital based on an objective formula that increases with asset concentrations, or should capital be based on an overall evaluation of an institution's capital adequacy?

How should an objective formula be specified? What factors should be considered when performing an overall evaluation of an institution's capital adequacy?

Comment 18: What other factors should be considered in revising capital guidelines for concentration of credit risk?

IV. Nontraditional Activities

Finally, section 305 also requires each federal banking agency to revise its risk-based capital guidelines to take account of the risks of nontraditional activities. Since risk-based capital standards were formulated in the mid-80s, banks have commenced certain activities, such as commodity-linked transactions, that were not directly identified or explicitly treated in the risk-based capital guidelines. These activities have been monitored by the Banking Agencies and are currently considered as part of the overall evaluation of an institution's capital adequacy. New or nontraditional activities have been reviewed for their appropriate treatment in the risk-based capital framework. If a new activity has not appeared to fit readily within the existing risk-based capital definitions, interpretations have been made to clarify the new activity's appropriate treatment for capital purposes.

In implementing section 305, the Banking Agencies would formalize this process to ensure that institutions hold capital

commensurate with the risks of nontraditional activities. Risk-based capital guidelines would be amended to incorporate the risks of nontraditional activities. In this regard, the Banking Agencies seek industry comments on the following questions and issues:

Comment 19: What should the Banking Agencies consider to be a nontraditional activity?

Comment 20: Should there be a requirement for additional capital based on a general, objective formula, or should additional capital be required based on a case-by-case evaluation of the risks of the nontraditional activity in the context of an institution's risk profile and capital adequacy? How should an objective formula be structured?

Comment 21: How should risk-based capital guidelines be revised to take adequate account of the risks of nontraditional activities? Should the Banking Agencies consider such factors as whether the nontraditional activity is conducted directly in the institution or indirectly through a subsidiary?

Comment 22: What factors should be considered when evaluating the risks of nontraditional activities?

Appendix

SUMMARY INSTRUCTIONS FOR COMPILING THE INTEREST RATE RISK REPORTING SCHEDULE

The IRR Reporting Schedule spans six maturity/repricing time bands. Unless specified otherwise, the dollar balances of fixed-rate assets, liabilities and off-balance-sheet positions should be slotted in the time band that corresponds to the instrument's remaining contractual maturity. The dollar balances of floating-rate assets, liabilities, and off-balance-sheet positions should be slotted in the time bands that correspond to the instrument's next repricing date or, if the instrument does not reset again, its maturity date. Floating-rate loans or securities whose reset index rate is within 100 basis points of the instrument's lifetime cap or ceiling should be slotted according to their remaining contractual maturity.

Securities and loans are reported in one of three basic asset categories based on their cash flow characteristics: Amortizing, Non-amortizing and Deep Discount. With the exception of mortgage derivative securities, which have separate slotting rules, amortizing instruments are those assets that involve a periodic payment of both principal and interest more frequently than once a year. Non-amortizing instruments are all other assets with coupons greater than 3 percent, while deep discount instruments are all other interest bearing assets with coupons of 3 percent or less. Exhibit 1 summarizes how specific assets might be classified in the proposed reporting system. Note that

certain classes of assets, such as asset-backed securities, could be classified in one of several categories depending upon their payment characteristics.

EXHIBIT 1

EXAMPLE CLASSIFICATIONS OF BANK ASSETS BY GENERIC CATEGORIES FOR REPORTING PROPOSES

<u>ASSETS</u>	<u>NON-AMORTIZING</u>	<u>AMORTIZING</u>	<u>DEEP DISCOUNT</u>
Securities			
Treasury & Agency: GNMA, FNMA, FHLMC Mortgage Pass-through Securities:	X	X	X
"Nonhigh-Risk" CMO's, REMIC's:	X		
Municipal:	X	X	X
Other Mort. Pass-Through Sec:		X	
Foreign Securities:	X	X	X
Asset Backed Securities:	X	X	
Loans			
Real Estate:			
Construction & Development:	X		
Farmland:	X	X	
Residential Revolving Lines:	X	X	
Residential Mortgages:		X	
Multi-Family Mortgages:		X	
Non-Farm & Non-Residential:	X	X	
Depository Institutions:	X		
Agricultural Loans:	X	X	
Commercial & Industrial Loans:	X		
Banker's Acceptances:			X
Consumer:			
Revolving Lines:	X		
Other:	X		
Municipal:	X		
All Other:	X		

Non-U.S. dollar denominated financial instruments should be converted to U.S. dollars and reported along with all other on- and off-balance-sheet positions on the reporting form. Each currency should be converted into the equivalent U.S. dollar

amount, using market exchange rates prevailing on the reporting date.

LINE-BY-LINE INSTRUCTIONS

In general, the items requested on the IRR reporting schedule coincide with items reported in the institution's Consolidated Report of Condition and Income (Call Report). For most items, the dollar balances in the "Total" column on the IRR Reporting Schedule will coincide with the dollar balances on the referenced Call Report schedule.

The instructions below follow the IRR Reporting Schedule (Table 1) line by line.

I. INTEREST-BEARING ASSETS

(Slot by contractual maturity or next repricing date unless otherwise indicated)

1. Cash and Interest-Bearing Balances Due

Slot Call Report Schedule RC, Item 1.a, "noninterest bearing balances and currency and coin," in the 0-3 month time band and distribute Call Report Schedule RC, Item 1.b., "interest-bearing balances," accordingly.

2. Securities (Including Trading)

Fixed income Trading Account and Investment Securities should be reported together.

(a) Amortizing

Slot dollar balances of mortgage pass-through securities using their remaining contractual maturity assuming no prepayments. The interest rate risk weights are adjusted for expected prepayments. Pass-through securities include:

- FNMA and FHLMC Securities (Schedule RC-B, Item 2.a.(1))
- GNMA Securities (Schedule RC-B, Item 2.a.(2))
- All other pass-throughs (Schedule RC-B, Item 4.a.)
- Pass-throughs in Trading Account

Dollar balances of adjustable-rate mortgages (ARMs) should be slotted according to their next repricing date unless the loan rate, as of the reporting date, is within 100 basis points of the instrument's lifetime cap. Only when this latter event occurs should ARMs be slotted according to their contractual maturity. Include any other security that involves a periodic payment of principal more frequently than once a year (e.g., asset-backed securities backed by installment loans).

(b) Non-Amortizing

All non-amortizing fixed income securities with coupons greater than 3 percent. These securities include:

- U.S. Treasuries, agency debentures, municipal bonds, domestic and foreign bonds.

Callable bonds should be slotted in the time band corresponding to the call date associated with the current market price.

EXAMPLE:

The institution owns \$1 million (book value) of a corporate bond with a remaining maturity of 6 years, a current market price of 101.0 and the following call schedule:

Callable in:	1 year	2 years	3 years	4 years	5 years	6 years
At a price of:	105	104	103	102	101	100

Based on the current price of 101 and a call price of 101 in 5 years, the bond would be slotted in the 3-7 year time band.

Floating-rate securities whose reset index is within 100 basis points of the instrument's lifetime cap should be slotted according to their contractual maturity.

Mortgage derivative products (CMOs, REMICs, etc.) that meet the following definition of "nonhigh-risk" securities, regardless of acquisition date, should be reported based on their current remaining average life. A mortgage derivative product that does not meet any of the following three tests is considered to be a "nonhigh-risk mortgage security."

- (1) Average Life Test - The mortgage derivative product has an expected weighted average life greater than 10.0 years.
- (2) Average Life Sensitivity Test - The expected weighted average life of the product:
 - (a) extends by more than 4.0 years, assuming an immediate and sustained shift in the yield curve of plus 300 basis points, or
 - (b) shortens by more than 6.0 years, assuming an immediate and sustained shift in the yield curve of minus 300 basis points.
- (3) Price Sensitivity Test - The estimated change in the price of the mortgage derivative product is more than 17 percent, due to an immediate and sustained shift in the yield curve of plus or minus 300 basis points.

(c) **Deep Discount Coupons**

All fixed income securities with coupons of 3 percent or less not reported in the amortizing and non-amortizing categories

above. Such securities include: zero coupon securities, securities quoted on a discount basis, and low coupon U.S. Treasuries, agency debentures, municipal bonds, and domestic and foreign bonds.

(d) High-Risk Mortgage Securities

Report the current carrying value of all mortgage derivative products (CMOs, REMICs, etc.) that meet the following definition of "high-risk" securities, regardless of acquisition date. Do not slot these instruments across the maturity ladder. (See Memorandum item below.) A mortgage derivative product that meets any of the following three tests is considered to be a "high-risk mortgage security."

- (1) Average Life Test - The mortgage derivative product has an expected weighted average life greater than 10.0 years.
- (2) Average Life Sensitivity Test - The expected weighted average life of the product:
 - (a) extends by more than 4.0 years, assuming an immediate and sustained shift in the yield curve of plus 300 basis points, or
 - (b) shortens by more than 6.0 years, assuming an immediate and sustained shift in the yield curve of minus 300 basis points.
- (3) Price Sensitivity Test - The estimated change in the price

of the mortgage derivative product is more than 17 percent, due to an immediate and sustained shift in the yield curve of plus or minus 300 basis points.

3. Federal Funds Sold & Securities Purchased for Resale

Federal Funds Sold & Securities Purchased with Agreements to Resell (Schedule R, Items 3.a. and 3.b.)

4. Loans, Leases & Acceptances

Slot the dollar balances of loans and leases excluding those in nonaccrual status but including any unearned income on the loans.

The total of amortizing loans and non-amortizing loans including leases and acceptances should correspond to the sum of the dollar balances on Schedule RC-C Memoranda Item 3.c. (2.c. for banks filing FFIEC 034) and Schedule RC, Item 9.

(a) Amortizing

All amortizing loans including:

- Residential, single-family and multifamily mortgages, consumer installment loans.

Include any other loans and leases that involve a scheduled periodic repayment of principal more frequently than once a year.

(b) Non-Amortizing

All other loans and leases not slotted under amortizing loans including the dollar balances of Customers' Liability to Bank on Acceptances Outstanding (Schedule R, Item 9). Credit card receivables and other loans with indefinite maturities should be slotted based on management's determination of their effective repricing sensitivity.

5. Total Interest-Bearing Assets

Calculated as the sum of Items 1, 2, 3, and 4 above.

II. **ALL OTHER ASSETS**

Calculated as the difference between Total Interest-Bearing Assets calculated in Item I.5. above and the institution's Total Assets as reported on Schedule RC, Item 12. This item is included for illustrative purposes to allow the IRR reporting schedule to "foot" to Schedule RC.

III. TOTAL ASSETS

Equal to Schedule RC, Item 12. This item is included to illustrate how the IRR reporting schedule "foots" to Schedule RC.

IV. INTEREST-BEARING LIABILITIES

1. Interest-Bearing Deposits

Institutions should slot interest-bearing core deposits (Items IV 1.a. through IV 1.c. on the IRR reporting schedule) across the maturity ladder within the following constraints:

(a) To the extent that demand deposit balances are insufficient to offset the cash balances reported in Item I.1. above, (see Item V.1. below) NOW account balances should be slotted in the first time band. Remaining NOW account balances can be distributed across any of the first three time bands with no more than 30 percent of these balances slotted in the 1-3 year time band.

(b) To the extent that both demand deposit and NOW account balances are insufficient to offset the cash balances reported in Item I.1., (see Item V.1. below) MMDA account balances should be slotted in the first time band. Remaining MMDA (Schedule RC-E Memoranda, Item M.2.a.(1)) account balances can be distributed

across any of the first three time bands with no more than 30 percent of these balances slotted in the 1-3 year time band.

(c) Savings account balances (Schedule RC-E Memoranda Item 2.a.(2)) can be distributed across any of the first four time bands with no more than 30 percent of these balances slotted in the 3-7 year time band.

(d) Time Deposits

Slot dollar balances of all time deposits, regardless of size, in the time band corresponding to their remaining contractual maturity. These balances should equal sum of items from Schedule RC-E Memoranda Items M.2.b., M.2.c., and M.2.d.

(e) Foreign Interest-Bearing Deposits

Interest-bearing deposits in foreign offices, Edge and Agreement subsidiaries and International Banking Facilities (IBFs) (FFIEC 031, RC13.b(2)) should be slotted into the appropriate depository category using the same rules as outlined above.

2. Federal Funds Purchased & Securities Sold for Repurchase

(Schedule R, Items 14.a. and 14.b.)

3. Other Borrowed Funds

Such liabilities include:

- Demand Notes Issued to the U.S. Treasury (Schedule RC, Item 15).
- Other Borrowed Money (Schedule RC, Item 16).
- Mortgage Indebtedness and Obligations Under Capitalized Leases (Schedule RC, Item 17).
- Bank's Liability on Acceptances Executed and Outstanding (Schedule RC, Item 18).
- Subordinated Notes and Debentures (Schedule RC, Item 19).
- Limited-life Preferred Stock and Related Surplus (Schedule RC, Item 22).

4. Total Interest-Bearing Liabilities

Calculated as the sum of Items 1, 2, and 3 above.

V. NONINTEREST-BEARING LIABILITIES**1. Demand Deposits**

Under the assumption that cash in process of collection and currency and coin balances are funded by transaction accounts, an amount of demand deposits equal to the cash balances reported in Item I.1. above should be slotted in the shortest time band. Remaining demand deposit account balances can be distributed across any of the first three time bands with no more than 30 percent of these balances slotted in the 1-3 year time band. This category should also include non-interest-bearing deposits in foreign offices, Edge and Agreement subsidiaries, and IBFs (FFIEC 031, RC 13.b(1)).

2. Other Liabilities

Schedule RC, Item 20.

VI. TOTAL LIABILITIES

Calculated as the sum of IV.4., V.1. and V.2. above and should equal sum of Schedule RC, Items 21 and 22.

VII. EQUITY CAPITAL

Calculated by subtracting Total Liabilities (above Item VI) from Total Assets (above Item III).

VIII. NET OFF-BALANCE-SHEET POSITIONS

Off-balance-sheet positions should be reported as either amortizing or non-amortizing based on the cash flow characteristic of the underlying instrument. For example, an interest rate swap whose notional amount decreases by a fixed rate per quarter would be categorized as amortizing. A futures contract whose underlying instrument is a GNMA mortgage-backed security would be similarly categorized.

Report only the net positions appropriate for each time band after following the instructions outlined below for each type of instrument.

• Interest Rate Swaps

An interest rate swap contract obligates an institution to both receive and remit interest payments that are based on the notional amount of the swap contract. According to the contract, the institution will either receive fixed-rate and pay floating-rate payments, or it will receive floating-rate and pay fixed-

rate payments. To represent the institution's receipt of payments, the notional value of the swap (positive sign) is slotted either according to the maturity of the swap (payments received are fixed) or to the next repricing period (payments received are floating). To represent the institution's obligation to remit payments, the notional value of the swap (negative sign) is also slotted according to its maturity or repricing date depending on whether the payments are fixed or floating. Options on interest rate swaps would be handled similarly, with the option being valued by multiplying the option's current delta by its principal or notional value.

EXAMPLE:

The institution has entered into an interest rate swap contract with another party for a notional amount of \$125 million where the institution receives fixed payments and pays floating payments. The floating-rate resets monthly (thus, the negative \$125 million in the less than or equal to 3-month time band), and the swap matures in two years (thus, the positive \$125 million in the 1 - 3 year time band).

<u>OFF-BALANCE-SHEET ITEM</u>			<u>> 3 MONTHS</u>	<u>> 1 YEAR</u>	<u>> 3 YEARS</u>	<u>> 7 YEARS</u>
<u>(Dollars in Thousands)</u>	<u>TOTAL</u>	<u>< = 3 MONTHS</u>	<u>< = 1 YEAR</u>	<u>< = 3 YEARS</u>	<u>< = 7 YEARS</u>	<u>< = 15 YEARS</u>
Swaps						
Longs (+)	\$125,000	\$0	\$0	\$125,000	\$0	\$0
Shorts (-)	<u>(\$125,000)</u>	<u>(\$125,000)</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net Position	\$0	(\$125,000)	\$0	\$125,000	\$0	\$0

• **Futures Contracts, Forward-Rate Agreements, and Firm Commitments to Buy or Sell Loans or Securities**

A futures contract (bought or sold) and a forward-rate agreement (FRA) are slotted in the same manner on the IRR Reporting Schedule using only one entry in the time band corresponding to the maturity of the underlying position. A purchased futures contract is slotted as a positive dollar amount while a sold contract is slotted with a negative sign.

Commitments to buy loans or securities should be slotted as a positive value in the time band corresponding to the maturity of the underlying asset. Conversely, commitments to sell loans or securities should be slotted as a negative value in the time band corresponding to the maturity of the underlying asset.

EXAMPLE:

An institution has sold 10 Treasury bill futures contracts for delivery in one month. Each contract is for a 3-month, \$1,000,000 face amount Treasury bill. The institution has also purchased 100 Treasury note futures contracts for delivery in one month. Each of these purchased contracts is for \$100,000 face amount of a 5 year Treasury note. The face value of the shorted contracts would be slotted with a negative sign in the less than 3-month time band while the face amount of the purchased contracts would be slotted as a positive value in the 3 - 7 year time band.

<u>OFF-BALANCE-SHEET ITEM</u>			<u>> 3 MONTHS</u>	<u>> 1 YEAR</u>	<u>> 3 YEARS</u>	<u>> 7 YEARS</u>
<u>(Dollars in Thousands)</u>	<u>TOTAL</u>	<u>< = 3 MONTHS</u>	<u>< = 1 YEAR</u>	<u>< = 3 YEARS</u>	<u>< = 7 YEARS</u>	<u>< = 15 YEARS</u>
Futures						
Longs (+)	\$10,000	\$0	\$0	\$0	\$10,000	\$0
Shorts (-)	<u>(\$10,000)</u>	<u>(\$10,000)</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net Position	\$0	(\$10,000)		\$0	\$10,000	\$0

• Options

The delta equivalent value should be reported for exchange-traded and OTC options (except as outlined below for interest rate caps and floors). The delta represents the change in the value of an option relative to the change in the value of the instrument on which the option is written. An option's current delta times the notional value equals the delta equivalent value, and this value should be slotted in the time band corresponding to the maturity/repricing period of the underlying instrument. Purchased calls and written puts should be slotted using positive delta notional values while purchased puts and written calls should be slotted using negative notional values.

EXAMPLE:

An institution bought call options with a delta value of \$56 million on the 2 year Treasury note. A positive amount equal to the delta value is reported in the same time band as the maturity of the underlying instrument (thus, the positive \$56 million in the 1-3 year time band).

<u>OFF-BALANCE-SHEET ITEM</u> (Dollars in Thousands)	<u>TOTAL</u>	<u>< = 3 MONTHS</u>	<u>> 3 MONTHS < = 1 YEAR</u>	<u>> 1 YEAR < = 3 YEARS</u>	<u>> 3 YEARS < = 7 YEARS</u>	<u>> 7 YEARS < = 15 YEARS</u>
Options of Futures						
Longs (+)	\$56,000	\$0	\$0	\$56,000	\$0	\$0
Shorts (-)	\$0	\$0	\$0	\$0	\$0	\$0
Net Position	\$56,000	\$0		\$56,000	\$0	\$0

- Caps, Floors and Collars

Interest rate caps and floors represent a series of options with consecutive expiration dates equal to the repricing date of the underlying index. Caps represent a series of calls on a short term interest rate, and can be used to create an upper limit on the cost of floating-rate liabilities. Floors are a series of consecutive puts on a short term rate and can be used to protect floating-rate assets from declining rates. Each option in the series could be treated individually using delta weights. Institutions wishing to do so may elect to use such a treatment by reporting the delta weighted average notional value of caps or floors in the time band corresponding to the delta weighted average maturity of the instrument. Recognizing that most institutions may not be able to report such a treatment, a simpler approach to valuing caps and floors is permitted.

For purchased caps, if the index rate (the underlying rate upon which the cap is based) is within 100 basis points of the cap strike rate (or "in the money"), the notional value of the cap (negative sign) is slotted according to the maturity of the cap. In essence, the floating-rate liability is converted into a fixed-rate liability; hence, the negative entry at the longer maturity (long a fixed-rate liability). Purchased caps which are not within 100 basis points of the cap strike rate are not reported.

For purchased floors, if the index rate is within 100 basis points of the floor strike rate, the nominal value of the floor (positive sign) is slotted according to the maturity of the floor. In essence, the floating-rate asset is converted into a fixed-rate asset; hence, the positive entry at the longer maturity (long a fixed-rate asset).

Collars should be handled by reporting the cap and floor as specified above. Treat each position separately.

EXAMPLE:

An institution purchased a cap with a notional amount of \$10 million which matures in two years. The index is 3-month London Inter-Bank Offered Rate (LIBOR), which is currently 6 percent and the cap strike rate is 6.5 percent. A negative notional amount is slotted according to the maturity of the cap (the negative \$10 million in the 1 -3 year time band).

OFF-BALANCE-SHEET ITEM (Dollars in Thousands)	TOTAL	Maturity				
		< = 3 MONTHS	> 3 MONTHS < = 1 YEAR	> 1 YEAR < = 3 YEARS	> 3 YEARS < = 7 YEARS	> 7 YEARS < = 15 YEARS
Caps						
Longs (+)	(\$10,000)	\$0	\$0	(\$10,000)	\$0	\$0
Shorts (-)	\$0	\$0	\$0	\$0	\$0	\$0
Net Position	(\$10,000)	\$0	\$0	(\$10,000)	\$0	\$0

MEMORANDA ITEMS

Under revised supervisory policies on securities activities that became effective on February 10, 1992, institutions must evaluate at least quarterly whether their holdings of high-risk mortgage securities reduce interest rate risk. Institutions should report the current market value of high-risk mortgage derivative products along with their estimated market values for

a 100 basis point increase and decrease in market rates in the lines provided. The methodologies used to estimate these changes in market values should be the same as used to conduct the "high-risk mortgage derivative product" tests. The reported data will be used directly in calculating the institution's IRR exposure.

Mortgage derivative securities purchased prior to February 10, 1992, that meet the high-risk tests are subject to previously-existing supervisory policies and are, therefore, not subject to the quarterly IRR risk evaluation criteria. For such holdings, institutions have the option of: (1) reporting the interest rate sensitivity of these holdings in a similar fashion as post February 10, 1992, purchases, or (2) reporting only the current book value of those securities. Balances reported under the second option would receive high positive risk weights in calculating the institution's exposure.

By Order of the Board of Directors,

Dated at Washington, D.C. this 29th day of July, 1992.

FEDERAL DEPOSIT INSURANCE CORPORATION

/Signed/

Hoyle L. Robinson
Executive Secretary

(SEAL)

This signature page relates to the Joint Advance Notice of Proposed Rulemaking titled Risk-Based Capital Standards, Office of the Comptroller of the Currency, Department of the Treasury, Docket Number 92-13.

OFFICE OF THE COMPTROLLER OF THE CURRENCY

July 29, 1992

Date

/Signed/

Stephen R. Steinbrink
Acting Comptroller of the Currency

This signature page relates to the Joint Advance Notice of Proposed Rulemaking titled Risk-Based Capital Standards, Board of Governors of the Federal Reserve System Docket, Number R-0764.

By Order of the Board of Governors of the Federal Reserve System.

July 28, 1992
Date

William W. Wiles
William W. Wiles
Secretary of the Board

Billing Codes:

FDIC: 6714-01-M (1/3rd)

OCC: 4810-33-M (1/3rd)

Board: 6210-01-M (1/3rd)