COMMENT OF FREDDIE MAC
ON THE PROPOSED NEW BASEL CAPITAL ACCORD

May 31, 2001

I. Introduction

In January 2001, the Basel Committee on Banking Supervision published a proposal for the New Basel Capital Accord (the "Proposed Accord") for comment. The Proposed Accord is designed to improve the current Basel Capital Accord by better linking bank capital requirements to risk. The Proposed Accord represents a substantial accomplishment in an important and complex undertaking. Freddie Mac respectfully submits these comments to assist the Committee in its deliberations.

Freddie Mac is a shareholder-owned corporation chartered by Congress to create a continuous flow of funds to mortgage lenders in support of homeownership and rental housing. Congress established Freddie Mac to support the U.S. housing finance market and charged Freddie Mac with specific statutory purposes to: (1) provide stability in the secondary market for residential mortgages; (2) respond appropriately to the private capital market; (3) provide ongoing assistance to the secondary market for residential mortgages, including through activities relating to mortgages on housing for low- and moderate-income families; and (4) promote access to mortgage credit nationwide.[1]

Freddie Mac operates in a single line of business, residential mortgage finance. Both Freddie Mac's public policy mission and safety and soundness depend on our understanding of mortgage finance markets and mortgage risk. The combination of focus on mortgage risk and its importance to our business and mission has led Freddie Mac to make significant investments in identifying, managing and allocating capital for mortgage risk. This comment focuses on the effects of the Proposed Accord on residential mortgages.

II. Background

The Proposed Accord, which is designed to improve the current Basel Capital Accord by better linking bank capital requirements to risk, consists of Standardized and Internal Ratings Based (IRB) approaches to accommodate banks that vary by size, expertise and risk profiles. The Standardized approach, which will be primarily used by smaller banks, is quite similar, conceptually, to the current Basel Capital accord. The major difference is that risk weights under the Standardized Approach would be based on the external credit ratings of the assets, when available.

Under the Proposed Accord's IRB approach, which will be used by larger institutions, banks are required to assign their banking-book exposures into one of six broad classes, corporate, sovereign, bank, retail, project finance and equity. The retail class includes residential mortgages, credit card loans, installment loans, revolving credits and small business facilities.

Most of the analysis in the IRB approach deals with corporate securities, with required capital for other classes defined in relation to corporate requirements. The IRB approach sets required capital levels based on bank estimates of one-year default rates for its assets. IRB capital required for the retail class is set at roughly half the amount required for corporate obligations with comparable default and severity characteristics. According to the Proposed Accord, the

[1] Federal Home Loan Mortgage Corporation Act, § 301.

assumption that retail assets require half as much capital as corporate assets is largely based on surveys and an industry "rule of thumb." Implicit in this is the assumption that a retail portfolio is by definition more diversified and, therefore, less correlated with the overall economy, than a portfolio of corporate securities. Under the approach taken for corporate assets, obligations with the same one-year default rates will require higher levels of required capital for longer maturities and less diversification. There are no maturity or diversification adjustments for retail securities in the Proposed Accord, so there is no accounting for the longer maturities or the level of geographic diversification in a portfolio of residential mortgages.

III. Three areas where the proposal could tie capital closer to risk

1. As proposed, the assigning of capital for credit risk based solely on one-year default rates does not reflect the credit risk in mortgage portfolios. In particular, credit risk on a portfolio of mortgages builds over time, with one-year default rates that are initially very low and then rise sharply. The likelihood of large credit losses is highly dependent on geographic diversification while diversification has no effect on average one-year default rates for mortgages.
2. The Proposed Accord currently does not explicitly include all mortgage risks, but lowers overall capital levels based on better measurement of credit risks. Interest-rate risk, model risk, and underwriting risk are examples of omitted mortgage risks. Management and operations (M&O) risk could be used to capture risks omitted in the rest of the Proposed Accord if the definition of M&O risk explicitly included these risks and was set at an appropriate level.
3. The Proposed Accord combines AA and AAA securities although there can be large liquidity differences which are important in a one-year framework, where there is an implicit assumption that the asset could be sold after one year. For collateralized borrowing, the Proposed Accord equates liquidity with credit rating and residual maturity, not accounting for industry practices, which differentiate based on liquidity among securities with similar credit ratings.

A) One-year default rates do not reflect mortgage credit risk

Residential mortgage credit risk often builds up over time in regions experiencing falling house prices. Credit costs generally lag regional economic downturns by as much as several years and often follow periods of especially strong house price growth and low credit losses. In addition, because regional house prices are more volatile than national house prices, a geographically concentrated portfolio is subject to much more volatility in credit costs than a nationally diversified portfolio. Because mortgage collateral is tied to the region, mortgage risks are much more closely tied to the regional economy than is true for other consumer financial products. An example of both the time and geographic dimension may be found in the California experience of the early 1990s. One-year conditional default rates on 80 percent loan-to-value (LTV) ratio mortgages originated in California in 1990 were about 1/10 of one percent in 1991, but rose to approximately 10 percent by 1996, a hundred-fold increase in five years.

Once credit losses begin to increase due to an economic downturn, portfolios of mortgages are relatively illiquid. Future losses will either be experienced right away if the bank attempts to sell

the portfolio at a steep discount, or over time if it is retained. Lifetime loss rates are therefore locked in for an extended period before actual credit costs rise. The Proposed Accord's one-year time horizon based on recent default experience could lead to levels of required capital that do not protect the portfolio to the desired level by not incorporating this time profile of mortgage credit losses. A second ramification of this time profile is that capital rules that do not take this time profile into account will be subject to large swings in capital from year to year, with the need to raise capital often coinciding with earnings pressure from increased credit costs in an economic downturn. These patterns are exacerbated by geographic concentration within the portfolio. Rules that ignore the significant benefits of geographic diversity require the same level of capital for portfolios with significantly different risks.

B) Certain mortgage portfolio risks are not captured

A guiding principle behind the Proposed Accord is that as risks are measured more accurately, then less capital needs to be held for those risks. Care must be exercised, however, to ensure that substantial risks are not left unmeasured as capital is lowered, or if they are, that the framework requires sufficient capital elsewhere to account for them. The Proposed Accord carefully defines credit risk and M&O risk, but the more carefully these risks are defined and measured, and the more capital is lowered as a result, the greater the possibility that capital will not be sufficient for other significant, but unmeasured, risks.

Interest rate risk is an important component of overall mortgage risk, and is to be handled under the supervisory pillar of the Proposed Accord. Although the Proposed Accord lays out 15 principles for supervisors to evaluate the adequacy and effectiveness of a bank's interest rate risk management, it contains no explicit capital charge for interest rate risk. Instead, the Proposed Accord indicates that high-risk institutions, defined as those that lose more than 20 percent of Tier 1 and Tier 2 capital under a standard interest-rate shock, can be subject to capital requirements. Even well-managed mortgage portfolios are not without risk. For example, a funded mortgage portfolio that is not expected to lose value as interest rates change has the risk that unexpected losses occur because asset values do not track interest rates as expected. These losses occur because the models used to predict changes in value result in significant prediction error. This model risk is unlikely to be captured under interest rate risk.

The Proposed Accord defines M&O risk as *the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events,* and sets 20 percent of economic capital as a target amount of capital for M&O risk. Required capital can fall from this level as banks employ more sophisticated approaches to measuring and managing M&O risk. It is not clear whether the current definition allocates capital for market and model risk mentioned above, and underwriting risk, which is the risk that credit risk is greater than measured.

C) The proposal does not sufficiently distinguish for the liquidity of highly-rated securities

The Standardized Approach of the Proposed Accord does not set capital to reflect liquidity of the security, the ability to unwind a position quickly without significant losses. The Standardized Approach, which bases required capital on external ratings, groups AAA and AA securities

together. Given the one-year horizon of the Proposed Accord, liquidity risk is an important component of the overall risk of these securities. There are substantial liquidity differences among AAA securities, and an even larger gulf between AAA and AA securities.

Collateralized borrowings are generally short term, using securities as collateral for the loan. The primary risk in collateralized borrowings is therefore the lender's ability to liquidate the security without loss in the case of default. The Proposed Accord improves on the 1988 Basel Capital Accord through recognition of the importance of liquidity, rather than just credit risk for collateralized borrowing. The Proposed Accord appropriately requires significantly lower levels of capital for collateralized borrowings. Under the Proposed Accord, though, liquidity is equated to credit rating, maturity and classification of the exposure as corporate, bank, sovereign, etc. While these are all important correlates with liquidity, there are others that are equally important, including size, issuance on a calendar and bid-ask spreads.

IV. Recommendations for better tying capital to risk

A) Create a separate category for residential mortgages and adjust capital for mortgage credit risk to account for longer than one-year horizon and geographic diversification

We recommend that in setting capital for credit risk, the Committee separate residential mortgages from other retail sector assets in order to account for the long-time horizon of defaults and importance of geographic diversification in a mortgage portfolio. Mortgages are a relatively safe asset class, with default rate in a nationally diversified mortgage portfolio comparable to high-quality corporate assets. There is no empirical justification for setting capital for mortgages at half the rate of corporate securities with comparable PD and LGD, especially if the mortgage portfolio is geographically concentrated.

B) Explicitly require capital for interest-rate risk and other omitted mortgage risks

As a mono-line institution, Freddie Mac has developed state-of-the-art expertise in managing interest rate and other risks associated with portfolios of mortgages. We allocate capital based on measurements of these risks. Both our minimum and risk-based regulatory capital requirements contain explicit capital charges for interest rate risk. We believe that this is prudent. The experience of the thrift industry in the 1970s and 1980s demonstrated the potential effects on mortgage portfolios of large, unexpected interest rate swings. We recommend that the Proposed Accord incorporate a capital charge for interest-rate risk on a mortgage portfolio.

Given the importance of holding capital against all significant risks, and the fact that measuring these other risks is still a relatively undeveloped area for the industry, we recommend that the Committee consider a simpler measure for M&O risk, and set target levels of M&O capital sufficient to cover significant risks, such as model risk and underwriting risk, not covered under other sections of the Accord.

C) Capture differences in liquidity among highly rated securities

The Proposed Accord relies heavily on bank practice in most sections, but does not account for the large liquidity differences among highly rated securities even though the industry practice is to account for liquidity differences in securities when making investment decisions. Liquidity issues affect two areas of the Proposed Accord, the haircuts suggested for collateralized borrowings and the credit risk capital for highly rated securities under the Standardized Approach.

Market haircuts for many securities are smaller than those suggested under the Proposed Accord because the market recognizes the liquidity advantages of mortgage-backed securities issued by Freddie Mac compared to highly-rated corporate securities or asset-backed securities. We recommend that the Committee reconsider these haircuts to more closely tie them to current market practices. We also recommend that the Committee consider distinguishing between AAA and AA rated securities based on liquidity for the credit risk capital requirement under the Standardized Approach.