features, final maturities, and embedded options.

Long-Term Investment; Short-Term Investment

Section 704.6 of the current regulation frequently uses the phrases "long-term (initial maturity over 1 year) investments" and "short-term (initial maturity of 1 year or less) investments." In the interests of simplifying the regulation, the proposed rule would simply define, for the purpose of investment ratings, a "long-term investment" as one having an initial or expected maturity greater than one year and a "short-term investment" as one having an initial or expected maturity of one year or less." These definitions apply only to investment ratings in Section 704.5, which sets forth corporate credit union investment authority in the proposed rule. "Longterm" and "short-term" have different meanings in the context of asset-liability management.

## Market Value of Portfolio Equity (MVPE)

MVPE is designed to calculate the risk that changing interest rates will have on a corporate credit union's capital. The traditional practice of measuring interest rate risk sensitivity was the static Gap model. With the introduction in recent years of more dynamic income simulation models, a more sophisticated and precise calculation of income (and capital) at risk is possible. The evolution of asset/liability management techniques has led to a greater understanding of how changing interest rates impact not only earnings but capital as well.

The Board recognizes that, like any estimation, the validity of the MVPE is dependent upon the quality of assumptions and integrity of the data going into the calculation. If the MVPE is intended to capture true mark-tomarket risk of capital, the discount rates in the net present value calculations must reflect any credit, liquidity, or option premiums that are inherent in a specific asset or liability.

The development of simulation models that calculate changes in net worth for given changes in interest rates has changed the way many risk managers regard interest rate sensitivity. The MVPE calculation is significant because it is a measure that captures risk over a more long term horizon than net interest income (NII), and as such, it serves as a better early warning detection system. Where net interest income calculations typically focus on income over the next 12–24 months, MVPE captures the long-term economic risk that is inherent in the balance sheet. It is possible for an institution's current earnings to hold steady over the near term as the mark-to-market of the balance sheet is rapidly deteriorating. If a risk manager only focuses on earnings, the risk of capital depletion may go unnoticed.

MVPE is intended to show how the economic values of both sides of the balance sheet will change in relation to one another as interest rates change. One need only look at the toll of the 1994 bear market to understand the ramifications of ignoring the risk of capital depletion. The Board is therefore compelled to ensure that all liquidity providers be cognizant of the risk exposures they take with regard to their capital and liquidity positions.

Many institutions have borrowed short-term funds to buy long-term assets. The inducement is typically a steep yield curve that provides an instant spread opportunity and quick income. The contribution of retained earnings to capital is a favorable objective but the risk of mismatched assets and liabilities can easily produce a situation where the market takes all the benefits away faster than the income was produced. The ability to withstand a liquidity crisis rests on core solvency. Maintaining core solvency, on a markto-market basis, in all probable interest rate environments is imperative, and MVPE is a method by which oversight authorities can police the capital at risk.

An institution that has negative capital on a mark-to-market basis cannot meet the demands or obligations of a liquidity crisis, and it is for this reason that the Board desires to expand the risk measurement techniques employed by corporate credit unions so as to detect unacceptable exposures of risk at the earliest opportunity and mandate an appropriate course of corrective action whenever necessary. The MVPE calculation serves to

The MVPE calculation serves to inform risk takers of what the stakes are before the adverse market changes occur. By employing a "what if" scenario approach, risk managers can observe the changes in MVPE to determine the cost of entertaining certain risk exposures. It is a dynamic approach that allows the oversight authorities to know how much is at stake and to respond before problems arise.

## Net Interest Income

The standard measure of risk in income simulation calculations is the variability of net interest income, from "most likely" expectations, for given changes in interest rates. The relationship between interest bearing assets and liabilities is subject to adverse change when market rates rise and fall. The ability to capture the variability of returns that results from changing rates is widely regarded as a fundamental tool for managing interest rate risk.

The policy makers at corporate credit unions need to place limitations upon the amount of income that is subject to interest rate risk. Net interest income simulation is useful for understanding what variables will impact earnings and it allows the user to subject the balance sheet to severe rate stress tests and balance sheet composition changes.

"What if" analysis is essential for anticipating the damage that will result if rates move contrary to the corporate credit union's forecast. Since credit unions cannot predict interest rates, the risk of positioning the balance sheet for a specific purpose must be measured in a variety of interest rate scenarios. A net interest income simulation provides a better means for forecasting the potential risk to income posed by changing rates. Like MVPE, it helps senior management and the board of directors to determine if the levels of potential risk are acceptable.

## Overnight

The integrity of the corporate credit union system rests on its ability to repay member funds, other than PCSAs and SCSAs, upon demand and without delay. A large portion of the funds in the system is in overnight accounts, and the bulk of those funds should remain immediately available to meet all contingent member needs. Since overnight transactions might span several days when a weekend or holiday is involved, the term "overnight" is recognized to mean from one business day to the next.

## Penalty for Early Withdrawal

Market-based penalties on shares, deposits and liabilities are important because they protect corporate credit unions from the replacement risk that results when an early withdrawal by a member credit union can only be replaced by a higher cost alternative. This risk is tantamount to selling an investment security on the secondary market. Corporate credit unions are financial intermediaries that should not absorb the risk caused by members seeking an early redemption.

Member credit unions will have an economic incentive to request early redemption when reinvestment prospects exceed early withdrawal penalties. Unless the penalties are assessed on a contemporaneous markto-market basis, the corporate will have