What Does Your Board Know?

A Guide to Director Responsibilities for Bank Investment Activities

by
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The FFIEC’s Supervisory Policy Statement on Investment Activities was released in 1998, and is the controlling guidance for Board of Directors involvement in the management of the investment portfolio. The document included a host of new rules and regulations for bank directors. One of the most significant new rules states:

This investment supplement will review the most important elements of the Statement and will illustrate some of the steps directors and officers should take to help their Boards comply with the new requirements.

Please note that this supplement is not designed to give directors complete compliance information. It is merely a discussion of some of the more obvious elements of the new rules.

The Investment Activity Rules

The rules were written in such a way as to reduce specific bond-level investment requirements while increasing each bank’s responsibilities for establishing its own investment requirements. For example, the previous rules dating back to 1992 required that certain types of investments were to be stress-tested under rising and falling rates.

If any one of these securities, specifically Collateralized Mortgage Obligations, lost more than 17% of its market value when rates rose by 300 basis points, then that security was a “high-risk security”. As such, it could only be purchased with a high degree of suitability documentation. Further, subsequent testing was required of the entire CMO portfolio to ensure on-going compliance with the regs.

The 1998 guide did away with all required testing. However, it does require each bank to be responsible for developing its own list of securities to be tested, for specifying the types of tests to be run and for specifying acceptable test results.
The Board is responsible for reviewing and approving the new tests and test results.

Paraphrasing, the Board is responsible for approving major policies, including the establishment of risk limits. An effective risk management process will include:

- Policies, procedures and risk limits
- Identification, measurement and reporting of risk exposures
- A system of internal controls
- Annual reviews of investment strategies, policies, procedures and limits

**Risks**

The Statement defines five types of investment risks and alludes to a sixth. Community banks do not usually incur significant amounts of most of the defined risks. For example, investment credit risk and legal risk are generally associated with non-community bank activities such as interest rate swaps or other third party contracts.

A typical community bank does, however, routinely incur market risk and cash flow risk. Market risk is the risk of excessive price fluctuation in the investment portfolio given shifts in interest rates. Cash flow risk is the risk of too much cash when rates fall and of too little cash when rates rise. The management and measurement of these risks will be discussed on pages A4 and A5.

Two of the most important ingredients of the bank’s policies will be to

- Policies, procedures and risk limits
- Identification, measurement and reporting of risk exposures
- A system of internal controls
- Annual reviews of investment strategies, policies, procedures and limits

In other words, the bank is to perform pre-purchase and post-purchase testing for its investment securities. The test results and compliance exceptions are to be reported to the Board.

**Pre-purchase Testing**

The Board is required to approve a list of securities that the bank’s investment officer is authorized to buy. The Board is also required to approve pre-purchase testing and test risk limits. Fortunately, not all securities need to be tested. The Board is required, however, to approve pre-purchase testing and to test risk limits for complex securities.

**Chart** On page A4 is designed to help meet all pre-purchase testing requirements for individual securities. Note that these are just examples. Bank management could choose to develop much more comprehensive pre-purchase testing that would include the impact of each purchase on the overall portfolio and/or the total institution.

However, the FFIEC Statement is clear that price sensitivity is the preferred test:

- Price sensitivity analysis is an effective way to perform the pre-purchase analysis of individual instruments. For example, a pre-purchase analysis should show the impact of each purchase on the overall portfolio.

At a minimum, bank management should develop, and the Board should approve, a chart similar to the example chart to meet the bank’s investment needs. When properly developed, this chart displays:
• All securities the bank’s investment officer is authorized to purchase,
• All securities that require no analysis prior to purchase, and
• All tests and risk limits for those securities that do require testing prior to purchase.

On the example chart, the bank’s investment officer is authorized to buy any U.S. Treasury. Treasuries with maturities of less than 10 years are classified as non-complex securities and require no pre-purchase testing; however, Treasuries with maturities of greater than 10 years must be stress tested. When “shocked” by an immediate rise of 300 basis points, the Treasury tested must have a market loss of no more than 20%. Treasuries with a price volatility of greater than 20% cannot be purchased without specific review and approval of the Board.

In our sample Chart 1, agency-issued mortgage-backed securities with final maturities of less than 20 years require no testing. Agency issued mortgage-backed securities with maturities of greater than 20 years, and private-labeled mortgage-backed securities of any maturity, must have a price volatility of less than 20% given a 300 basis point rise in rates. Private label mortgage-backed securities must also have a credit rating of at least AA.

Post-Purchase Testing
Pre-purchase testing helps the bank avoid the purchase of unsuitable securities. Post-purchase testing helps the bank manage the portfolio under changing conditions. Changes in the shape of the yield curve, the bank’s structure and even the characteristics of securities already in the portfolio need to be monitored and periodically tested to make sure the portfolio and its individual securities remain suitable.

Institutions should provide reports to their boards on the market risk exposures of their investments on a regular basis. To do so, the institution may report the market risk exposure the whole institution’s economic value or earnings exposures. Institutions may find it useful to establish price sensitivity limits on their investment portfolio or on individual securities. These sub-institution limits, if established, should also be consistent with the bank’s overall risk management strategy.

Banks are required to establish testing procedures and risk limits for the various types of exposures, including market value risks, earnings risks, and cash flow risks.

Market Value Risk

Market risk is the risk to an institution’s financial condition resulting from adverse changes in the value of its holdings arising from movements in interest rates, foreign exchange rates, equity prices, or

![Chart 1]

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<tr>
<td><strong>Treasuries</strong></td>
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<td>Treasuries maturing in &gt;10yr</td>
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<td><strong>Agencies Debt</strong></td>
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<td>Bullet &gt;10yr</td>
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<td><strong>Agencies Collar, Zeros, and Structured Securities</strong></td>
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<td>Collarables &amp; Offsets (&gt;10yr)</td>
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<td>Uncapped TBAs (1yr &amp; under) or LIBOR Floors</td>
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<td>Zerobound</td>
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<td>Structured Coupon Securities and other agency notes</td>
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<td><strong>Private-Backed Securities Issued by FNMA, FHLMC, and GNMA</strong></td>
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<td>AAA Maturity &gt;30yr</td>
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<td>Private Label MBS</td>
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Market value risk of the bank’s investments can be measured by projecting the change in market value of the total portfolio, of segments of the portfolio, or of an individual security. Chart 2 shows the last page of a comprehensive portfolio management report that allows directors to see the market value risk at each of these three levels; i.e., portfolio, segment and individual security.

Earnings Risk

The FFIEC Statement explains that market value risk can be measured two ways:

- As the effect of changing rates on the economic value of the total portfolio, a portfolio segment or an individual security (as illustrated in Chart 2) or
- As the effect of changing rates on earnings.

Cash Flow Risk

Cashflow testing in this case means projecting the principal cashflows of a security or of the bank’s investment portfolio under rising and falling rates.

Chart 3 is an excerpt from ICBA Securities’ Performance Profile. It summarizes a bank’s total earnings risk, including the risk to earnings from changes in cash flows and yields of the investment portfolio. The ECR (earnings change ratio) column is used to convert the bank’s balance sheet (static) gap into an income statement (dynamic) gap.

In this example, a drop in rates by 100 basis points will cause a change to bank earnings of +$188,000. If rates rise by 100 basis points, the change in overall bank earnings is about -$278,000 per year.

Cash Flow Risk

Investments and should delineate clear lines of responsibility and authority for investment activities. An institution’s management should understand the risks and cashflow characteristics of its investments. This is particularly important for products that have unusual, leveraged

sample bank

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Chart 4 shows the projected cashflows of an actual bank portfolio under stable, rising and falling rates. The projected cashflow under stable rates (black bars) is $8.0 million in 2007 and $11.9 million after the year 2016. If rates fall by 200 basis points, callable bonds will be called and prepayments will speed up. The projected cashflow under falling rates (dark blue bars) will be $18.5 million in 2007 – more than twice the projected cashflow as that under stable rates. On the other hand, if rates rise by 200 basis points (red bars), the projected cashflow after the year 2016 will be $22.2 million– double the cashflow as that under stable rates.

This example illustrates the regulators’ interest in having bankers “understand the risks and cashflow characteristics of its investments”. In Chart 4, the stress test has revealed an excessive extension risk if rates rise. And, if rates fall, the test shows a large amount of cash coming back to the bank to be reinvested when rates are relatively low.

Setting Risk Limits

The following risk limits are examples taken from community bank policies. However, these examples should not be construed as being appropriate for all banks. Each bank should have risk limits that fit its unique financial structure and management style.

Pre-Purchase Test Limits

Pre-purchase testing and risk limits were discussed in some detail on page A4 and illustrated with Chart 1. For those securities that the Board wants tested prior to purchase, most banks set pre-purchase test limits on each security’s market value risk. These risk limits generally range between 17% and 20% of market value given a 300 basis point change in interest rates. Exceptions can be created when necessary. For example, the price volatility in tax-free securities is about two thirds that of taxables of the same maturity. Therefore, the market value risk limit for a tax-free can be set at 17% to 20% given a 200bp change in rates without compromising the bank’s risk profile.

Post-Purchase Test Limits

As discussed previously, the most common risk exposure for community banks is market value risk. Post-purchase market value risk limits can encompass a wide range of options.
Market Value Risk – It is suggested that market value risk be measured as a percentage change in market value at the portfolio level and the individual security level. At the portfolio level, high performing bank portfolios have an overall market value deterioration of around 12% given a 300 basis point rise in rates.

The individual security limit can be set at near or slightly above the pre-purchase limit; e.g., 17% to 20% given a 300 basis point rise in rates. It is not necessary to require disposal of a security that individually fails a post-purchase test. Rather, monitoring those bonds thru a “watch list” provided by management may be a more prudent approach.

Earnings Risk – Changes in the bank’s earnings, given changes in rates, can be measured with any one of a number of systems, including the ICBA Securities Earnings at Risk analysis displayed in Chart 3. The earnings risk limits can be expressed as any one or any combination of the following (per a defined market rate change):

- Percent change in capital;
- Percent change in net interest margin;
- Percent change in net earnings

The Board should always measure the bank’s current position before setting risk limits. There is no sense in being out of compliance on the very day the risk limits are established.

Cash Flow Risk – It is suggested that the board periodically review the bank’s cash flows under rising and falling rates, but that the board not set any specific limits. Cash flow characteristics can change quickly and dramatically and should be monitored; however, setting limits may sometimes inhibit sound management decisions.

Summary

The bank’s Board must review, understand and approve the bank’s:

- Investment goals, policies and procedures,
- Suitable securities list,
- Pre- and post-purchase testing procedures,
- Pass/fail test limits and
- Independent review program.

The Board’s minutes should demonstrate that the full Board has fulfilled these responsibilities.

The bank’s Board is required to have “an adequate understanding of (the bank’s) investment activities” or to “obtain professional advice … to enable it to meet its responsibilities”

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