

Market Signals Of Investment Unsuitability

Law360, New York (June 03, 2010) -- The financial market crisis of the past several years saw the demise of many formerly venerable banking institutions. Lehman Brothers, Merrill Lynch and Bear Stearns, among numerous other investment and commercial banks, collapsed, resulting in profound losses for investors who owned the securities issued by those institutions.

In a number of recent lawsuits, investors have alleged that their investment advisers and portfolio managers breached their fiduciary responsibilities by not divesting bonds that ultimately became severely impaired or worthless. While the bonds may have been appropriate investments at the time of original purchase, plaintiffs argue that diligent managers fulfilling their responsibilities of loyalty and care should have monitored these investments and removed them when the bonds' credit quality, and consequently suitability, deteriorated.

Defendants counter that the onset of the issuers' financial distress was sudden and unpredictable, which makes allegations of unsuitability little more than Monday-morning quarterbacking. One can easily claim that a bond was risky after a market crash or a bankruptcy occurs but, they continue, the risks were not readily apparent *ex ante*. Moreover, defendants have pointed to the sustained investment-grade credit ratings some of these bonds carried right up to the time of default. If the rating agencies were blind to the trouble ahead, how could anyone else have seen it coming?



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The conflicting claims of these suitability lawsuits can be better evaluated when we appreciate some of the standards, practices and analytical tools of the asset-management profession. For example, well articulated professional standards address managers' responsibilities with respect to monitoring assets post-purchase.

Additionally, certain widely used and generally accepted analytical tools can indicate when a particular bond has grown riskier. The same analysis that investment managers use — or should use — to monitor bond risk in real time can be applied now for the benefit of the court. The investigation can determine whether a portfolio manager would have had sufficient time to recognize and remove risky bonds before bankruptcy or default, and thus to fulfill the duty of care.

Monitoring and Rebalancing

A portfolio manager is charged with selecting investments that are initially suitable and with continually monitoring the portfolio, making adjustments as needed to maintain suitability. This standard is set forth by the CFA Institute, grantor of the Chartered Financial Analyst designation, the premier practitioner credential. All investment professionals who earn the CFA designation are schooled in this standard throughout the program curriculum. The manager's responsibility to ensure continued suitability is unequivocal, clearly extending beyond initial asset selection.[1]

Suitability

Suitability varies from case to case, depending on an investor's objectives and constraints. A bond well suited to a risk-tolerant individual with an aggressive capital appreciation objective may not be suitable for a risk-averse investor for whom preservation of capital is paramount. Because suitability is relative to the investor, the criteria for suitability must be agreed upon and communicated between client and manager. Usually, these criteria are memorialized in the investment management contract or in an investment policy statement. According to the CFA Institute, formalizing these guidelines in a policy statement is another professional responsibility. An investment manager's ignorance is no excuse; resolving any uncertainty is a fiduciary duty.

In assessing a bond's suitability, the investor's level of risk aversion is frequently keyed to the investment's level of default risk. While interest rate variability and other market factors might cause a bond's price to fluctuate moderately, a default can potentially cause a 100-percent loss. Thus many investment clients stipulate that bonds must be investment grade, carrying little risk of default. Speculative grade bonds pay higher yields than investment grade, but their return is compensation for the greater likelihood of default.

Third-party credit rating agencies such as Standard and Poor's, Moody's, and Fitch provide one assessment of credit quality, but the limitations of these ratings are well known. Rating agencies are paid by issuers, not by investors, which introduces potential conflicts of interest. Also, though they are paid to rate bonds initially and may be paid for ongoing surveillance, rarely are agencies compensated to re-rate a bond once conditions have changed. When the market shift is rapid, the re-rating backlog can be enormous, owing to the number of previously rated bonds.

These are just a few of the many drawbacks to relying solely on third-party ratings. To ensure continued suitability of the securities under their management, diligent investment managers will look for market signals of changing credit quality and will make adjustments accordingly.

Implied Default Probability

A well known and widely used means to assess changing credit quality is “implied default probability.” This is a measure of the likelihood of default that can be inferred by comparing a particular bond’s market price with the price of similarly structured risk-free bonds.

A simple example demonstrates this fundamental concept. Consider a bond that is near maturity, has a face value of \$100, and has no coupon payments scheduled. At maturity, the issuer is obligated to pay the investor the bond’s face value. If market participants are nearly certain that the bond will not default and therefore that its face value will be soon be paid in full, then the bond’s market price should be very close to \$100.

On the other hand, if it is widely suspected that the issuer will default and the \$100 face value will not be paid, then the market price of the bond will be near \$0. Similarly, if market participants believe the probability of payment is 50 percent, the current market price of the bond will be in the neighborhood of \$50. Since a bond’s market price reveals the market’s assessment of its default risk, an investment manager can gauge the bond’s credit quality, and therefore suitability, by following its market price.

Now, consider an actual case study of a floating rate note — a bond whose coupon payments change when the market interest rate changes. Unlike a fixed rate bond, whose value falls when the market interest rate rises and whose value rises when the market interest rate falls, a floating rate note’s value bears little exposure to changing market interest rates. In the absence of substantial default risk or peculiar characteristics in the design of the note, a floating rate note’s price is generally close to par. If the note is of standard design, any significant change in its value indicates a change in its default risk.

In March 2007, Lehman Brothers issued a floating rate note maturing in March 2009. From the issue date to the end of July 2007, the market price of the note traded in a relatively narrow range of \$99.57 to \$100.04, per \$100 of par, with an average price of \$99.94. This slim price variation near par indicated that the market viewed the bond as safe and not likely to default. During the five months that followed, however, the note’s price fell and its volatility increased dramatically: Between August and December 2007, the price fell to a range of \$97.30 to \$99.04, with an average price of \$98.07.

While a decline in price from \$99.94 to \$98.07 may seem moderate, what it reveals about credit quality is significant. In its initial months, when the Lehman floating rate note was priced at \$99.94, its implied default probability was 0.15 percent. When the price fell to \$98.07, the note’s implied default probability rose to 2.01 percent — a level that corresponds more closely to a speculative grade bond.

The historical record of default rates supports this view. By comparing a bond’s implied default probability, as derived from market price, with the historical rate of default for each designated credit rating level, we can determine which credit rating is most appropriate. The Lehman floating rate note’s initial implied default risk of 0.15 percent places it between the historical 2-year default rates of Aa-rated bonds (0.02 percent) and Baa-rated bonds (0.51 percent), as rated by Moody’s.[2] This is a range squarely inside the investment grade category.

When the implied default probability rose to 2.01 percent, the default risk soared to nearly four times that for Baa-rated bonds. In fact, it corresponded more closely to the 3.22 percent default rate of Ba-rated bonds, which are speculative grade. Not surprisingly, the note’s implied default probability corresponds to speculative grade when compared to the historical record of defaults on Standard and Poor’s rated bonds, as well.[3]

The implied default probability over the life of the floating rate note indicates its fall from investment grade quality by September 2007. That means that for investors who required investment grade bonds only, the note had become unsuitable a full year before Lehman’s ultimate bankruptcy in September 2008.

True, the credit quality and bond price might have recovered after September 2007, but such a hopeful motivation for hanging on is precisely why bonds in this category are called “speculative.” Gambles of this sort are just what risk-averse clients reject when they insist upon investment grade bonds.

Implied Volatility

The “implied volatility” of a company’s stock is another market-based signal of potential unsuitability. Derived from stock option prices, implied volatility is a forecast of the issuer’s stock price volatility, and in turn measures the company’s risk. If a company’s implied volatility spikes upward, investment managers are on notice that the company and its securities have become riskier.

Between March 1, 2007 and July 19, 2007, Lehman Brothers’ implied volatility held stable within a range of 25.3 percent to 31.6 percent, with an average of 28.2 percent. Toward the end of July 2007, however, the implied volatility abruptly climbed and subsequently soared. Between July 20, 2007, and the end of the year, Lehman Brothers’ implied volatility ranged between 33.8 percent and 51.8 percent, with an average of 40.9 percent.

This dramatic increase in implied volatility was a signal no diligent investment manager should have ignored. If nothing else, it should have prompted investment managers to ask questions and conduct deeper analysis into the suitability of any securities issued by Lehman Brothers. By the second half of 2007, these numbers clearly indicated that Lehman was no longer in the same condition as when it had issued the two-year floating rate note.

Conclusion

To satisfy their contractual obligations and fiduciary duty of care, investment managers must monitor changing market conditions and divest holdings that have become unsuitable. Rather than looking only to ratings by third-party agencies, they should also focus on market signals in order to assess credit quality and suitability. Implied default probability and implied volatility convey relevant information that should not be overlooked.

It is not only hindsight which reveals that certain bonds had become too risky, and therefore unsuitable, prior to the financial market melt-down. In the Lehman Brothers case, contemporaneous warning signals were present in the market. Unfortunately, some managers apparently ignored them and investor losses ensued. Forensic application of implied default probability and implied volatility analysis — the very tools that might have prevented the losses — can determine whether investors’ losses stemmed from sudden and unpredictable events or alternatively from managers’ breach of fiduciary duty.

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Crowninshield has been engaged by attorneys representing investors who suffered losses on Lehman securities.

The opinions expressed are those of the authors and do not necessarily reflect the views of Portfolio Media, publisher of Law360.

[1] "Monitoring and Rebalancing," in John L. Maginn, Donald L. Tuttle, Jerald E. Pinto and Dennis W. McLeavey, *Managing Investment Portfolios: A Dynamic Process*(3rd ed.; CFA Institute Investment Books, 2007), p. 682.

[2] "Confidence Intervals for Corporate Default Rates," by Richard Cantor, David Hamilton and Jennifer Tennant, *Moody's Investors Service*, April 2007.

[3] "Confidence Intervals for Probabilities of Default," by Samuel Hanson and Til Schuermann, *Journal of Banking and Finance*, 2006.



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