

WEEKLY MARKET MONITOR

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RISK AND ITS REWARDS

The housing crisis which begat the credit crisis continues. So far, several trillion dollars in housing wealth has evaporated and we are witnessing the first signs that households are beginning to adjust their consumption in response to their reduced circumstances. The housing and credit crises have had a correspondingly large impact in public equity markets; with several hundred billion dollars in realized losses by financial services firms to date with much, much more to come. The magnitude of these losses raises the question of what went wrong and why. This week we'll look at risk and risk-taking:

- How risk is defined
- The credit crisis and the mistakes made
- Why long-term investors should continue to take – smart – risks.

How does the profession define and measure investment risk? Fortunately, at heart, risk does have a common fundamental element. That is the relationship between the potential for loss and the potential for reward. In other words, what is the chance that a given investment will incur a loss or fail to achieve a particular return? Moreover, we know that as the expected return of an investment increases, so does the risk of a loss. We often summarize this as the risk-return trade-off and we often measure it in terms of the volatility of an investment's returns over time. Hence when we think of risk we mean that we can specify a probability distribution for returns. Keep in mind that risk can be absolute or relative. Absolute risk has to do with total volatility or the chance of any sort of loss. Relative risk refers to the volatility or the chance of a loss with respect to an appropriate benchmark.



Investment risk, whether absolute or relative, is multifaceted. It can be the result of a security's or asset's exposure to a wide range of factors, including changes in interest rates, a specific economic sector, capitalization size and style, the possibility of a credit default, and many others. The job of investment managers and executives is to figure out which risks are worth bearing ("good" risk) and which they choose to avoid ("bad" risk). In addition, investment managers may choose to hedge risks, thereby giving up some fraction of expected return for protection against some amount of loss. To make these decisions, TIAA-CREF has over the years developed procedures and a strong team of risk-minded investment managers and Risk Management professionals. They work together to assess, measure, and manage risks. In fact, in addition to seeking sources of return, their main job is to manage risk.

As is well known, housing prices surged and now, in the nature of asset market bubbles, have begun a lengthy retreat. Less well known perhaps, is that credit spreads (i.e., the difference in yield between a fixed-income asset and a comparable U.S. Treasury) narrowed at the same time a bubble developed in the housing market. This reduction in credit spreads prompted a search for investments with higher yields. Thus many investors and asset management firms were attracted to securities backed by sub-prime mortgages and other risky assets as these assets offered higher yields. In addition, the reduction in credit spreads also prompted many investors and asset management firms to take on leverage as a means of generating higher returns. The combination of shrunken credit spreads and increasing leverage in the financial system served as a warning signal for TIAA-CREF's investment professionals. TIAA-CREF's investment and risk management teams began to feel as though the diminished extra return wasn't worth the rising risks that they were seeing in certain markets. So the General Account in particular decreased its exposure to credit risks by investing somewhat more in U.S. Treasuries, which bear no credit risk.

Perhaps even more important, the risk and investment management teams looked carefully at the value of securities with exposure to subprime housing mortgages. Even though the credit rating agencies were still assigning high ratings to structured securities containing a sizable proportion of these mortgages, TIAA-CREF's own risk assessment concluded that many of these securities

posed significant risk of partial or full default as the housing market rolled over and subprime mortgages hit their teaser rate reset trigger points. As a result, the teams concluded that these securities were mispriced and that the market would eventually come to this conclusion as well and prices would collapse. The General Account reduced its exposure to securities containing subprime mortgages and did not participate in additional purchases. In contrast, the General Account continued to hold high-quality structured securities in other areas.

The large and growing losses realized by many financial services firms are testament to their imprudent, poorly disciplined risk-taking behavior. The losses are not evidence that risk-taking is ill-advised but rather that undisciplined and imprudent risk-taking is ill-advised and likely to end badly. Smart investors, conversely, look for and take smart, disciplined risks and over time have been rewarded accordingly. In addition, smart investors limit risks vis-à-vis their benchmarks because as benchmark risk exceeds a certain level, the probability of achieving successful outperformance declines.

At TIAA-CREF the investment professionals in asset management and risk management understand and measure risk, seeking to take smart risks with discipline and limits. In light of recent history one may be tempted to ask, Why not avoid investment risks? The answer is simple: That strategy wouldn't be in our participants' best interest. Without risk there is no possibility of obtaining an extra return. Instead, TIAA-CREF avoids certain types of risk, prudently pursues the risks that it believes are worth taking in the name of return, and sets limits on the amount of risk it is willing to take. While there is no way of knowing in advance how successful any firm will be in this regard, TIAA-CREF's approach limits risk while still seeking outperformance.

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