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Avoiding Unintentional Risks

Academics traditionally define an investment's risk as the volatility of its returns. In their view, the more an investment's returns fluctuate, the riskier it is. Basing risk on volatility is a good start. After all, unpredictability tends to make us uncomfortable. This is especially true when dealing with things like our savings and retirement accounts. The more those account values vary, the more uncomfortable we become. Conversely, an investment with low volatility is defined as low risk, which makes intuitive sense. Characteristics like stability, reliability, and consistency tend to be universally valued, whether we are talking about portfolios or people.

Reducing the complex concept of risk to one simple number was no easy task. A young graduate student at the University of Chicago named Harry Markowitz is generally credited with being the first to do so, way back in 1952. He used the formula in Exhibit 1 (which you would be forgiven for mistaking as hieroglyphics) to take into account the volatility of individual positions, their relative weight in a portfolio, and their correlation to one another. The result earned Mr. Markowitz a Nobel Prize in Economics and is used as the foundation for many of today's most popular portfolio management models. But, as they say, the devil is in the details.

EXHIBIT 1 PORTFOLIO VOLATILITY FORMULA

$$\sigma_\rho^2 = \Sigma\,(W_i - \sigma_i)^2 + \Sigma_{i \neq j}\,\Sigma_{i \neq j} W_i * W_j * \rho_{ij} * \sigma_i * \sigma_j$$

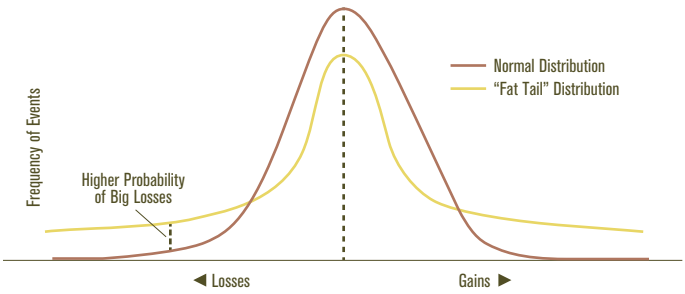
Where
σ_ρ^2 = volatility of the portfolio
W_i = the share of the ith asset in the portfolio
σ_i = volatility of the ith asset
ρ_i = the correlation of returns between the ith and j^{th} asset

Source: CFA Institute

To calculate portfolio volatility, we have to make two big assumptions: investment returns are normally distributed, and correlations are stable. Both of these assumptions »

are problematic. Anyone living through the global financial crisis can tell you that low-probability events can (and do) occur (Exhibit 2). They can also attest to the fact that typically uncorrelated investments – those expected to behave differently – can all decline together in periods of stress. For these reasons, volatility simply cannot be our only measure of risk.

EXHIBIT 2 DISTRIBUTION CURVES



The tails of distribution curves refer to low-probability, high-impact scenarios. In curves with a "fat tail" distribution, the scenarios at the end of the curve have higher probability of occurring than normal.
Source: PIMCO

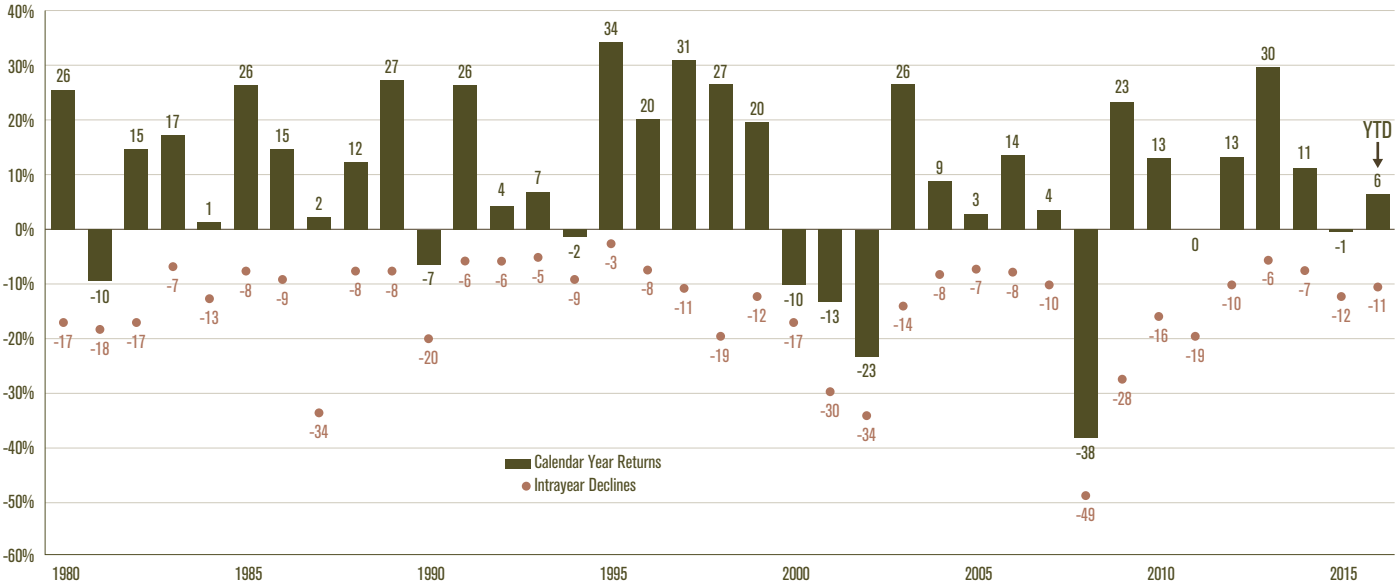
At RMB, we believe that there are more risks to investing than just the volatility of returns, and that the same investment may have different risks for different investors. For example, we consider how a portfolio decline might impact the timing of a client's retirement or their ability to maintain their lifestyle. Much of that risk is highly personal, subjective, and difficult to quantify. That's why our investment and asset allocation process goes beyond the assessment of quantitative risks in order to better understand the more subjective, qualitative risks involved. We use a number of tools to gauge different types of investment risk for each client.

Drawdowns

One of the ways we help clients consider conditions at the extremes is by discussing the probability and magnitude of an investment's losses; this helps to bring the concept of risk to life. These discussions become particularly important if investors are tempted to liquidate during times of market stress, which is, of course, the worst time to make such a move. We frequently consider periods of market stress as opportunities to buy high-conviction investments at lower prices.

Drawdowns are a normal part of investing. The S&P 500 has experienced a decline of 10% or more in 18 of the past 36 years. Over that time period, full-year returns have been positive 75% of the time (Exhibit 3). »

EXHIBIT 3 S&P 500 INTRAYEAR DECLINES VS. CALENDAR YEAR RETURNS
DESPITE AVERAGE INTRAYEAR DROPS OF 14.2%, ANNUAL RETURNS POSITIVE IN 27 OF 36 YEARS



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. Returns are based on price index only and do not include dividends. Intrayear declines refer to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2015, except for 2016, which is year-to-date as of 9/30/16.

Even so, drawdowns can be harrowing experiences for those living through them – especially because one never knows if a decline is just a healthy market correction or the start of a vicious bear market. In these moments, investors' own behavior can be one of their greatest risks.

We cannot control when drawdowns occur, but we can control how we react. Our view is that investors need to carefully structure an asset allocation that insulates them against painful market corrections. Investors who sell into a drawdown can turn a temporary decline into a permanent loss. Having a well-laid plan allows them to stay invested so they can participate in the subsequent rebound.

Illiquidity

Investing in hedge funds, private equity, and real estate are some common ways in which investors take on illiquidity risk. For example, many private equity funds make investments over a three-year period and can take five additional years until those investments are sold. During that time, their holdings are valued infrequently, often giving them the appearance of low volatility.

By locking up their capital to pursue strategies that may take a significant amount of time to play out, investors expect to capture an "illiquidity premium" – in other words, to earn an excess return in exchange for having reduced access to their capital. Under the right circumstances, this can be a powerful way for investors to enhance performance. However, the incremental return and seemingly low volatility come at a cost that should not be taken lightly.

To mitigate the risks involved, we work with clients to consider their time horizons and liquidity profiles. In our view, the key is for investors to right size the illiquid portion of their portfolios and avoid overreaching for the sense of higher returns and lower volatility. Under certain circumstances – as with retirees who rely on their investment portfolios as sources of cash – even the most attractive illiquid investment may be inappropriate. For those who can afford to devote their capital to long-term investments, some degree of illiquidity makes sense but must be managed with an eye toward the big picture.

Leverage

In a low-interest-rate environment, many investors feel tempted to increase leverage by borrowing capital. When their expected return is greater than their cost of borrowing, that leverage can be advantageous. But leverage also adds considerable risks. Just as leverage can magnify gains during good times, it can also magnify losses during times of poor performance. When an investment's returns no longer exceed the cost of borrowing, negative returns become likely. Should the amount of borrowing exceed the investment's value, a total loss of capital becomes possible.

Leverage can also introduce one of the classic causes of financial disaster – an asset and liability mismatch. When a company, a portfolio manager, or an individual investor borrows short-term funds in order to make a long-term investment, they must be very careful. If those funds need to be repaid at a time when the assets cannot be sold quickly at a fair price, an entire investment may be wiped out. This includes strategies based on adding leverage to what academics like Mr. Markowitz would consider an otherwise sound, low-risk investment. Put simply, ill-advised leverage can alter or destroy even the best laid plans.

Investors need to recognize that volatility is inevitable. By constructing a diversified portfolio and carefully considering the other risks mentioned here, investors can better navigate periods of volatility and even turn them into opportunities. At RMB, we are not afraid of risk; we embrace it, but in a way that is appropriate for each client. ■

Index Descriptions

- The S&P 500 index is widely regarded as the best single gauge of the U.S. equity market. It includes 500 leading companies in leading industries of the U.S. economy. The S&P 500 focuses on the large-cap segment of the market and covers approximately 75% of U.S. equities.

An investment cannot be made directly into an index. The index data assumes reinvestment of all income and does not account for fees, taxes, or transaction costs. The investment strategy and types of securities held by the comparison index may be substantially different from the investment strategy and types of securities held by your account or private fund.