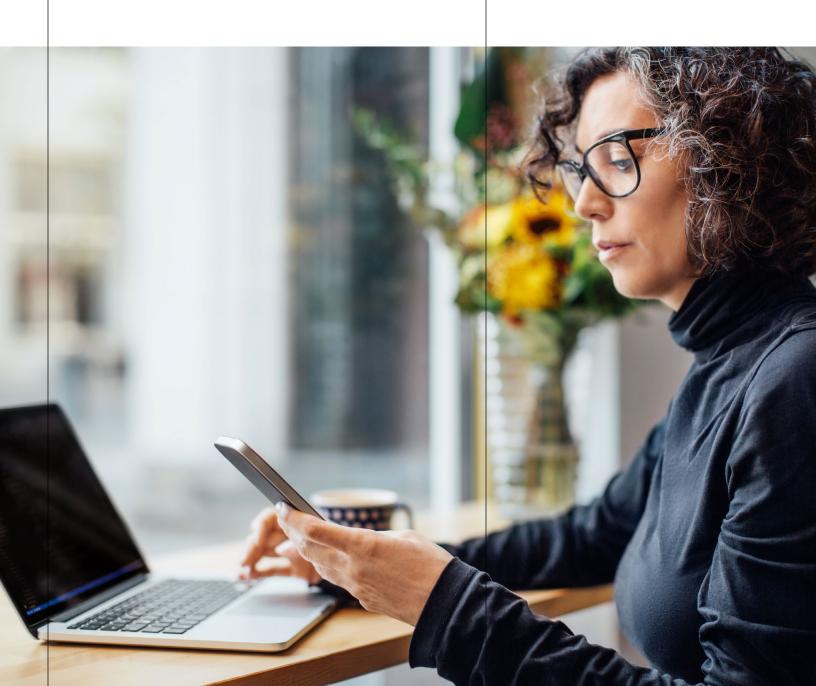
William Blair

Private Wealth Management

Risk: Understanding and Managing an Inevitable Part of Investing



Identifying the various types of risk investors face can help you think strategically about how to manage risk in a way that aligns with your goals and objectives.

Risk is a fact of life for all investors. This is true whether you invest purely in shorter-term, ultra-conservative government bonds or have exposure to more volatile asset classes such as emerging market or micro-cap stocks.

Understandably, the word "risk" evokes strong emotions for most investors, leading many to believe that risk is something to be avoided altogether. But the truth is that exposure to risk is inevitable for investors—and essential for generating long-term returns.

When it comes to managing risk, investors should focus on optimizing their risk exposure in light of their return expectations. Once investors have determined the level of return they need to achieve their goals, investors should look to generate those returns through an asset allocation strategy that minimizes risk.

The first step in thinking strategically about risk is understanding the essence of what investment risk is and the various forms of risk that investors face.

Defining Risk

Defining Risk

If you ask 10 investors to define risk, you're likely to get 10 different answers. At a high level, however, there are essentially two primary ways to look at risk: from the perspective of an investment professional and from the perspective of an investor.

Investment professionals tend to think about risk in its mathematical form: measuring the variability of an investment's return. An investment or a portfolio that generates returns of +25% in Year 1, -18% in Year 2, and +7% in Year 3 would be viewed as much riskier than an investment that generates returns of +3% in Year 1, -2% in Year 2, and +1% in Year 3. Investment professionals use measures such as standard deviation to determine the amount of variability in an investment's return and Sharpe Ratio to compare an investment's return premium per unit of risk.

Individual investors, however, tend to think about risk in more tangible and emotional terms. They often articulate

risk through questions like "What are the chances that I won't achieve my long-term financial goals?" or "How much of my wealth is at stake in the event of a large pullback in the market or, worse, a recession?" or "Would I be able to sleep at night if my portfolio suddenly lost 20% of its value?"

EXHIBIT:

Annualized Returns vs. Risk,

Jan. 2015 - Dec. 2024

Investors generally must assume a greater level of risk to achieve greater return potential. This is demonstrated when looking at the annualized returns and the risk (as measured by standard deviation) for stocks, bonds, and U.S. Treasury bills. (See benchmark definitions and disclosures on the back page.)

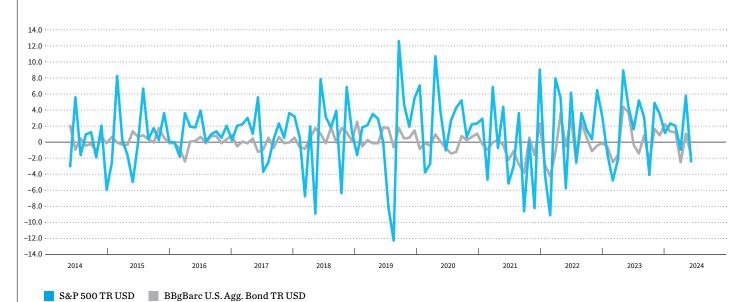
	S&P 500 Equities (%)	Bloomberg Aggregate Bonds (%)	30-Day Treasury Bills (%)
Risk	15.36	5.03	0.55
Return	13.10	1.35	1.71

Source: Morningstar Direct

EXHIBIT 2

Stocks vs. Bonds: Counterbalancing Risk

Bonds often become more attractive to investors—thus boosting prices—when the stock market is more volatile. This typically low or negative correlation relationship inverse relationship between fixed-income and equity markets can be a useful tool for counterbalancing risk in a portfolio.



Source: Morningstar Direct

Defining Risk (continued)

Both approaches—investment professionals' and investors'—are equally valid and are built on the fundamental truth that risk is an inevitable part of investing, one that needs to be fully understood and managed strategically.

Identifying Types of Investment Risk

Across a diversified portfolio of stocks, bonds, cash, and alternative investments, there are many different types of risk that could affect a portfolio's performance. These risks can be grouped into two main categories: company risk and market risk.

EXHIBIT 3

Systematic vs. Non-Systematic: Types of Investment Risk

Systematic Risk (Market Risk)	Non-Systematic Risk (Company-Specific Risk)
Interest rate risk	Earnings risk
Inflation rate risk	Headline risk
Currency risk	Competitive risk
Geopolitical or country risk	Demographic or customer risk
Liquidity risk	Credit risk

Company Risk

Company risk, also referred to as "non-systematic risk," relates to events or circumstances that only affect a specific company, product, or sector. Many of these risks stem from, or could be mitigated by, decisions that the company's management team makes. Some of the most common types of management-related risks include:

• Earnings risk: Public companies are required to report their earnings each quarter. The extent to which those earnings match, exceed, or fall short of investors' consensus expectations can have a significant, and nearly immediate, impact on the company's stock price. Over the short term, earnings reports are one of the biggest drivers of stock prices.

- Headline risk: As with earnings reports, when negative news breaks about a company, these headlines can quickly cause the stock price to fall. In highly regulated industries such as biotech or energy, news of a failed clinical trial or new regulations for offshore drilling, for example, could cause the price to fall. In any industry, headlines about a scandal involving company management or the loss of a key customer would likely send the stock price lower.
- Competitive risk: Sometimes the negative news that causes a company's stock price to dip doesn't have to do with the company itself, but with one of its competitors. For example, a European technology company's announcement that it is acquiring a company that allows it to gain a foothold in Asian markets could have a negative impact on the stock prices of competitors that are already operating in Asia.
- Demographic or customer risk: Trends related to what customers want from products or services, as well as demographic trends, can be a major influence on a company's stock price over the long term.
- Credit risk: With bonds, another company-specific risk (or government-specific risk, depending on the type of bond) that investors face is credit risk. This involves the risk that the issuer's financial condition may deteriorate to the point that the issuer won't be able to make the interest payments or pay back the principal amount.

Market Risk

While company-specific risks can largely be mitigated through diversification (as we'll discuss in more detail below), there are certain risks that investors face regardless of the extent to which their portfolio is broadly diversified. These are referred to as market risks, or systematic risks.

The most common forms of market risk include:

• Interest rate risk: Interest rates can significantly influence the price of a security. For bonds, as interest rates rise, the price of previously issued bonds fall, and vice versa. Interest rates can also affect stock prices, although the impact is less direct than it is for bonds. Often, rising interest rates serve as a headwind to equity markets.

Defining Risk (continued)

- Inflation risk: Also known as purchasing-power risk, inflation risk is the risk that rising prices for goods and services will erode the real value of money and negatively affect security prices. During periods of rising inflation, bond investors will demand higher interest rates to account for the fact that the value of their future coupon payments and principal repayment will be worth less. With stocks, inflation can be a double-edged sword. While most economists believe that moderate inflation creates a healthy environment for companies, allowing them to gradually increase prices, inflation that is too high can be destabilizing for the economy and cause interest rates to rise rapidly, putting downward pressure on stock prices.
- Currency risk: Exchange rates among currencies are constantly fluctuating. For example, from the beginning of 2014 to the end of 2024, the price of one euro in terms of U.S. dollars ranged from a high of \$1.39 to a low of \$0.95. For U.S.-based investors who own stocks or bonds of foreign companies, currency fluctuations have a direct impact on the value of their investments. Even investments in many U.S.-based companies face some degree of currency risk. The profitability and cash flows of U.S.-based companies that have customers and/or suppliers overseas are affected by currency rates.
- Geopolitical or country risk: Unexpected geopolitical events such as war, trade negotiations, elections, and political revolutions can have a destabilizing effect on financial markets and cause security prices to drop. Sometimes these events are isolated to markets in a specific country or region. But in an increasingly globalized economy, the impact of most regional events are felt, to some degree, around the world. For example, the United Kingdom's decision in June 2016 to withdraw from the European Union ("Brexit") caused the S&P 500, which is made up entirely of U.S-listed companies, to fall more than 5% over several trading days.

- Liquidity risk: While publicly traded securities have listed prices that are constantly updated and widely disseminated, investors are not guaranteed to be able to sell their securities at the listed price. The risk of not being able to find a buyer at a price that tracks closely to the security's listed value is referred to as liquidity risk. Generally, stocks that are lightly traded, have small market capitalizations, or are traded over-the-counter have higher liquidity risk. Also, some foreign markets have significantly higher liquidity risk than U.S. markets. But even large-cap U.S. stocks face liquidity risk in times of market turmoil. During the market crash of 2008, liquidity dried up across markets, and it was challenging for owners of many U.S. bank stocks to find buyers.
 - "Professional investors understand 'that there is no such thing as a free lunch.' When it comes to investing, there is no such thing as a risk-free asset. Even cash, the safest of all asset classes, is subject to inflation risk. During periods when inflation exceeds the yield on savings, money market, or other low-risk cash-management vehicles, cash has a negative return in real terms."

Managing Risk

The degree to which asset classes move in the same direction is referred to as correlation. Investing in asset classes that have low, or even negative, correlations to each other helps reduce a portfolio's risk. One of the most appealing aspects of alternative asset classes, such as real estate, hedge funds, and private equity, is that they often have low correlations to equity and fixed-income markets.

Managing Risk

Clearly, risk is something that investors need to manage rather than avoid. Risk management is one of the most widely researched and written about topics in the investment industry, and there is no shortage of opinions about ways to manage risk. At William Blair, we believe that our investors' approach to risk management should be based on three core tenets: diversifying across and within asset classes, delineating between risk tolerance and risk capacity, and maintaining communication with advisors.

Diversifying Across and Within Asset Classes

Diversification is the foundation of an effective riskmanagement strategy. Investors should look to achieve diversification at two levels: across asset classes and within asset classes.

Asset allocation, or the mix of investments across stocks, bonds, cash, and alternatives, such as real estate, hedge funds, and private equity, accounts for more than 90% of the variability of a portfolio's returns. Each of these asset classes reacts differently to economic and market forces, so spreading assets across multiple asset classes can help smooth out the portfolio's returns across market cycles. Accordingly, determining the appropriate asset allocation is a critical first step in the investment planning process, and this involves understanding the investor's long-term goals, time horizon, risk tolerance, risk capacity, liquidity needs, and overall balance sheet.

In addition to achieving diversification across asset classes, investors also should look to diversify their holdings within each asset class. While it is impossible to diversify away market or systematic risk, investors can significantly reduce their exposure to company-specific or non-systematic risk by ensuring that no one company or issuer represents too large of a portion of their overall portfolio. Equity

diversification involves investing in stocks of companies representing different industries, market capitalizations, investment styles (growth vs. value), and geographic regions. Fixed-income diversification involves investing in bonds of varying maturities, quality (credit ratings), and geographic regions.

Delineating Between Risk Tolerance and Risk Capacity

As important as it is for investors to know the composition of their portfolios, it is equally important for investors to understand their ability to deal with risk from both an emotional and a financial standpoint.

Risk tolerance refers to an investor's emotional reactions to gains, losses, and uncertainty. For some people, the uneasiness of knowing that they could lose 20% of their capital would be unacceptable, regardless of how much potentially could be gained by taking on that risk. Other people, however, are comfortable with assuming more risk as long as they feel that the potential upside is worth it. There is no right or wrong level of risk tolerance that investors should have; it is an entirely personal decision that is a function of one's temperament, personality, and experiences.

While determining risk tolerance is largely a matter of psychology, determining risk capacity is mostly a matter of mathematics. Risk capacity essentially measures how much wealth an investor could afford to lose and still achieve most of his or her financial goals. This is a function of the investor's time horizon, liquidity needs, overall balance sheet, income, and cash flow. All of the investor's assets, liabilities, expenditures, and sources of income—not just those related to the investment portfolio—need to be part of the analysis because each contributes to the investor's risk profile.

Managing Risk (continued)

To illustrate this point, consider the CEO of a pharmaceuticals company who receives a majority of her total compensation in the form of company stock options and has a large percentage of her total net worth invested in undeveloped real estate. It is important that the CEO's wealth advisor take these two facts into consideration when developing the investment strategy. To account for the CEO's concentrated equity position represented by the stock options, the advisor may decide to underweight the portfolio's exposure to the healthcare sector. To account for the fact that undeveloped real estate is illiquid and relatively high-risk, the advisor may lessen the portfolio's risk exposure and look to invest in more income-producing securities, such as bonds and dividend-paying stocks.

Maintaining Communication with Advisors

The final core tenet of risk management involves maintaining a dialogue with an investor's wealth advisors. Managing risk is a dynamic, ongoing process and an investor's risk-management strategy needs to evolve along with changes to his or her goals, family circumstances, time horizon, and financial situation. Consider, for example, a couple who is expecting twins when they were planning to have only one more child.

This exciting news means that the couple would have to double their 529 plan contributions to fully fund their children's college education. Or, going back to the pharmaceuticals CEO, consider the new opportunities that may arise if the company's stock price unexpectedly doubled on news of a positive drug trial. Suddenly, retiring five years earlier or starting a philanthropic family foundation could become viable options. This jump in stock price also means that the CEO's equity exposure to the healthcare industry suddenly increased as well.

Changes such as these can significantly alter investors' risk capacity, as well as their risk tolerance. By meeting regularly with their wealth advisor, investors can ensure that their financial portfolio and risk-management strategy remain aligned with their evolving personal and financial situation.

Risk Management at William Blair

Helping our clients understand and manage risk, both in their portfolios and in all aspects of their financial lives, is a central part of William Blair's approach to wealth management. To learn more about how we help clients assess risk and manage it in a way that aligns with their goals and objectives, please do not hesitate to contact us.

EXHIBIT 4

Risk Tolerance vs. Risk Capacity: Questions for Assessing Your Risk Profile

Risk tolerance refers to an investor's ability to handle risk from an emotional standpoint, whereas risk capacity deals with an investor's ability to handle risk from a financial standpoint. Here are the types of questions that wealth advisors may ask to determine each aspect of an investor's risk profile:

Risk Tolerance

In any given year if your portfolio declined in value by 20%, how do you think you would respond?

Which statement best describes your approach to investing?

- Conservative I'm not comfortable with volatility and I'm willing to forgo higher return potential for stability
- Moderate I'm willing to accept sporadic, small declines, but expect long-term returns somewhere between the historical returns for stocks and bonds
- Aggressive I'm willing to accept some years of significant declines in exchange for potentially exceeding the stock market's historical rate of return over the long run

Risk Capacity

What are your short-term, immediate, and long-term goals?

What is your time frame for achieving those goals?

What are your annual spending needs to support your current lifestyle?

At what age do you expect to retire, and what changes to your lifestyle do you expect during retirement?

What assets, liabilities, and sources of income do you have outside of your investment portfolio?

