



May 2013

To the reader,

Financial acronyms and verbiage can create a confusing backdrop for investing.

The following pages contain definitions, descriptions and examples of many commonly used investment concepts and terms. The material comes directly from Morningstar - one of the premier investment tools, analysis, rating and tracking organizations in the financial market.

It should be noted that John Lococo/First Street Insurance, AIC, and Morningstar are not affiliated. Also, First Street Insurance and John Lococo make no warranty or guarantee regarding the use of this material by the reader in making investment decisions or taking investment actions. It is recommended that the reader consult with their advisors for specific guidance regarding their investment planning and management.

Mutual Funds

Buying a mutual fund is a lot like going in on a group gift or joining a co-op--with people you'll never meet. Mutual funds allow a group of investors to combine their cash and invest it. By pooling their money together, mutual fund investors can sample a broader range of stocks or bonds than they could if they were trying to buy the stocks and bonds on their own.

Many people think of mutual funds as "products." But when you buy a mutual fund, you're actually buying an ownership stake in a corporation that in turn hires a money manager to invest its money. The price of a single ownership stake in a fund is called its net asset value, or NAV. Invest \$1,000 in a fund with an NAV of \$118.74, for example, and you will get 8.42 shares. ($\$1,000 \div \$118.74 = 8.42$.)

The fund manager combines your money with that of other investors. Taken altogether, those investments are called the fund's assets. The fund manager invests the fund's assets, typically by buying stocks, bonds, or a combination of the two. (Some funds buy more complicated security types.) These stocks or bonds are often referred to as a fund's "holdings," and all of a fund's holdings together are its "portfolio."

A fund's type depends on the kinds of securities it holds. For example, a small-company stock fund invests in the stocks of small companies. What you get as an investor or shareholder is a portion of that portfolio. Regardless of how much or how little you invest, your shares are the portfolio in miniature.

For example, Vanguard 500 Index's VFINX three largest holdings are ExxonMobil XOM (3.45% of its portfolio as of March 31, 2011), Apple AAPL (2.65%), and Chevron CVX (1.78%). A \$1,000 investment in that fund means that you own about \$34.50 of ExxonMobil, \$26.50 of Apple, and \$17.80 of Chevron. In fact, you own all 500 stocks in the fund's portfolio.

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903

Fees

These days, every time you purchase something, you get a detailed receipt. With a receipt, you know exactly where your money is going and just how smart—or ridiculous—your spending decisions have been.

Not so with mutual funds. As a mutual fund investor, you'll never write a check to a mutual fund for its services. That means you'll never know exactly where your money is going unless you're very, very vigilant. Any service charges for mutual funds come right off the top of your investment or straight out of your returns. Because costs are deducted this way, many investors aren't even aware of how much they're paying for their mutual funds.

Mutual fund fees can be broken down into two main categories: one-time fees and ongoing annual expenses. Not all funds charge one-time fees, but all funds charge ongoing annual fees of some sort. Return figures that you see for mutual funds in newspapers, annual reports, and financial Web sites typically don't reflect one-time fees, but ongoing expenses are almost always deducted from return figures that you see in public sources.

Modern Portfolio Theory

Nothing ventured, nothing gained. You can't have your cake and eat it, too. Life is a series of trade-offs.

We're all familiar with these mottos, which remind us that to get something, we have to give something up.

Investing requires sacrifices, too. We have give up safety and take on risk to achieve better returns. Modern Portfolio Theory (MPT) tries to make the most of the trade-off, illustrating how to generate as much return as possible for the least amount of risk.

This course will examine the relationship between an investment's risk and its return, how diversification allows you to achieve the maximum amount of return for the least amount of risk, and the role MPT can play in your portfolio.

With any reward—such as a great-performing stock or mutual fund—there's always some element of risk. And the greater the potential reward, the greater the potential risk.

It's hard to imagine a time when the risk/reward relationship was considered revolutionary. But, prior to Harry Markowitz's 1952 dissertation, *Portfolio Selection*, investment theory didn't discuss the risks of investing. Instead, it was flush with ideas for maximizing return.

Markowitz believed, and mathematically proved, that there is a direct relationship between an investment's risk and its reward. He saw risk as an equal partner with expected gain. As such, he argued that investors need to manage the tension between risk and return in the investment process.

Markowitz also argued that investors should be measuring, monitoring, and controlling risk at the portfolio level, not at the individual-security level. As a result, individual securities should be chosen based not only on their own merit, but also on how they affect the portfolio as a whole.

According to MPT, you can limit the volatility of your portfolio by spreading out your risk among different types of investments. In fact, by putting together a basket of risky or volatile stocks, the overall risk of the portfolio would actually be less than any one of the individual stocks in it.

Diversification depends more on how the securities perform relative to one another than on the number of securities you own, though. Markowitz compares a portfolio of 60 railway securities with another portfolio of the same size that includes railroads, utilities, mining, and manufacturing companies. He concludes

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903

that the latter is better diversified. "The reason is that it is generally more likely for firms within the same industry to do poorly at the same time than for firms in dissimilar industries," he says.

The "right" kind of diversification requires that you own securities that don't behave alike. In other words, their price movements have low correlation with each other.

Correlation measures the degree at which two securities move in similar patterns. Its value ranges from -1.0, indicating two securities moving perfectly opposite each other, to 1.0, indicating two securities moving in tandem. So to spread out your risk, you would want the securities in your portfolio to have correlations closer to -1.0 than to 1.0.

According to Markowitz, the goal is to craft an **"efficient" portfolio**. An efficient portfolio is either a portfolio that offers the highest expected return for a given level of risk, or one with the lowest level of risk for a given expected return. The line that connects all these efficient portfolios is the **efficient frontier**. The efficient frontier represents that set of portfolios that has the maximum rate of return for every given level of risk.

No point on the efficient frontier is any better than any other point. Investors must examine their own risk/return preferences to determine where they should invest on the efficient frontier. But, theoretically at least, the efficient frontier allows you to reduce your risk at no cost in return. Or you can increase return at any particular level of risk.

Diversification

If you're having friends over for a barbecue, would you only serve meat? We may be a bunch of Midwesterners at Morningstar, but we're sophisticated enough to expect more than just protein. Instead, you'd probably offer an assortment—some salad, watermelon, maybe lemonade, and so on. In short, you'd diversify your table so that your guests would be satisfied.

Now consider investing. You want to own various types of funds so that your portfolio, as a group of investments, does well. Certain types of investments will do well at certain times while others won't. But if you have enough variety in your portfolio, it is pretty likely you'll always have something that is performing relatively well. Owning various types of funds can help reduce the volatility of your portfolio over the long term.

Let's say that you buy a value fund that owns a lot of cyclical stocks, or stocks that tend to do well when investors are optimistic about the economy. If that were your only fund, your returns wouldn't look very good during a recession. So you decide to diversify by finding a fund heavy in food and drug-company stocks, which tend to do relatively well during recessions. By owning the second fund, you limit your losses in an economic downturn. That is the beauty of Diversification isn't a magic bullet.

Having a diversified portfolio doesn't mean you'll never lose money. Diversification doesn't mean complete protection from short-term dips or market shocks. Diversification does not guarantee that if one investment goes down another investment will go up—it isn't a seesaw.

2008 illustrated this point. The height of the financial crisis was an absolutely wretched time for investors; the average U.S. stock fund lost almost 39% that year. The average foreign-stock fund lost 45%. Funds that bought emerging-markets stocks were down 55%. Real estate funds tumbled almost 40%, while precious metals funds slid 30%. Even bond funds (with the exception of Treasuries) were in negative territory. The lesson: Because all sorts of investments can suffer at the same time, your only sure-fire protection against sudden losses is to put some of your Diversification can occur at several different levels of your portfolio. Some of those levels are more important for mutual fund investors than others.

Diversifying across Investments Say you owned stock in a single company. If the company flourished, so would your investment. But if the company went bankrupt, you could lose all of your investment. To reduce your dependence on that single company, you buy stock in four or five other companies, as well.

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903

Even if one of your holdings sours, your overall portfolio won't suffer as much. By investing in a mutual fund, you're getting this same protection.

Diversifying by Asset Class The three main asset classes are stocks, bonds, and cash. Some financial advisors contend that international stocks, real estate investment trusts, emerging-markets stocks, and the like are also asset classes—but the stocks, bonds, cash division is the most widely accepted. Adding bonds and cash (typically considered to be securities with maturities of one year or less) to a stock-heavy portfolio lowers your overall risk. Adding stocks to a bond- or cash-heavy portfolio increases your total-return potential. For most investors, it is wise to own a mix of all three. How you determine that mix depends on what your goals are and how long you plan to invest.

Diversifying by Subasset Classes Within two of the three main asset classes—stocks and bonds—investors can choose several flavors of investments. With stocks, for example, you may distinguish between U.S. stocks, foreign developed-market stocks, and emerging-markets stocks (typically considered to be stocks from emerging economies, including Latin America, the Pacific Rim, and Eastern Europe). Furthermore, within your U.S. stock allocation, you can have large-growth, large-value, small-growth, or small-value investments. You can also make investments in particular sectors of the market, such as real estate or technology. The possibilities for classification are endless and often overwhelming, even to experienced investors.

So what is the bottom line on diversification? Diversifying across investments and by asset class is crucial. Subasset class diversification is useful, but not everyone needs to own a government-bond fund, an international fund, a small-cap fund, a real-estate fund, and on and on. You should nonetheless consider the various ways that such investments might add diversity to your portfolio—and allow you to rest a little easier.

Benchmarks

Weightlifter Matthias Steiner hoisted more than 1,000 pounds in two lifts to claim the gold medal at the 2008 Beijing Olympics. He didn't lift perfectly at the event, the 310 pound athlete was nonetheless able to best his peers that day to take the top honors.

The maximum weight that you can lift is often regarded as the definitive statement of your strength. Yet what actually constitutes a "good" bench-press depends on the person: A 5'5" man or woman who can bench-press 150 pounds may have a superior strength-to-bodyweight ratio compared with a 6'2" man or woman who can bench-press 250 pounds.

The same relativity holds true when examining a mutual fund's performance. What constitutes a "good" return depends on your needs and the type of fund. That's where benchmarks come in to play.

Start by determining your personal benchmark. In fitness terms, that might mean getting strong enough to carry your 3 year old around town without getting winded, or it might mean building up enough endurance to climb a mountain. In investment terms, it means setting a benchmark for the returns required to reach your investment goal, whether it is a long-term goal (retirement) or a short-term goal (buying a new house in two years).

Say you want to retire in 30 years. You may know how much money you have to invest today, you can anticipate how much you'll be able to invest in the future, and you have a rough idea how much you'll need in retirement. After crunching the numbers, let's say you find that you need a 6% return per year to meet your goal. That's your personal benchmark.

By knowing that benchmark, you can immediately rule out funds that rarely meet that hurdle each year, such as most bond funds. You can also rule out funds that can sometimes return much more than your personal benchmark, because they probably present an added risk. That would include volatile fund types, such as emerging-markets funds or technology sector funds. Why take on all that extra, unnecessary risk?

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903

The most common type of performance benchmark is a market index—a preselected group of securities. Such indexes are usually tracked by the media and the investing community as indicators of the health of national and international stock and bond markets. Of course, there's no consensus on the single best index to use for investing purposes. The Dow Jones Industrial Average (DJIA) may be the index that heads the stock market report on the evening news, but it's rarely used as a performance benchmark for stock mutual funds. Why? Because it's so narrow: It includes just 30 large-company stocks, so it isn't all that indicative of the health of the overall stock market.

The index you'll hear about most often in mutual fund circles is the Standard & Poor's 500 Index, which includes 500 major U.S. companies. The larger the company, the greater its position in the index. Because the stocks in the S&P 500 are chosen to cover a range of industry sectors, the index often paints a clearer picture of the overall market than the Dow Jones Industrial Average.

Yet despite its widespread appeal, the S&P 500's focus on large companies means it's not representative of the entire market and smaller stocks' performance in particular. It's therefore inappropriate to measure a fund that doesn't buy large companies, such as Fidelity Low-Priced Stock FLPSX or T. Rowe Price Small-Cap Stock OTCFX, against this benchmark only. Nor should you compare a foreign-stock fund like Vanguard International Growth VWIGX with the S&P 500; that fund doesn't even own any U.S. stocks. And don't try to stack bond funds up against a stock-fund index like the S&P 500. This advice sounds like common sense, but investors make inappropriate comparisons all the time.

So what indexes can you use to make appropriate comparisons? The Russell 2000 Index, which tracks smaller U.S. companies, is a good tool to evaluate many small-company funds, while the MSCI EAFE(Europe Australia Far East) Index, which follows international stocks, is a good measuring stick for foreign funds. The Barclays Aggregate Bond Index is a good gauge for most taxable-bond funds. There are dozens of other indexes that segment the market even more, focusing on inexpensive large-company stocks or pricey small-company stocks, regions of the world such as Europe or the Pacific Rim, or even particular areas of the bond market. We include appropriate indexes for each fund on Morningstar.com

The second type of benchmark you can use is peer groups, or funds that buy the same types of securities as your fund. Compare funds that buy large, undervalued companies with others with the same style-so-called large-value funds. Or compare those that buy only Latin America stocks with other funds that only buy Latin America stocks. That way, you're comparing apples to apples.

Morningstar categories are suitable peer-group benchmarks for most mutual funds. Depending on what a fund owns, it can land in one of more than 40 Morningstar categories. If a fund's portfolio features large-company stocks with high earnings growth, the fund is categorized as a large-growth fund. If the fund brims with smaller companies that are inexpensive, it lands in the small-cap value category. If U.S. government bonds with comparatively short maturities populate the portfolio, the fund qualifies as a short-term government-bond fund.

What's so great about peer-group comparisons? They give you another way to examine a fund's performance. Consider Fidelity Blue Chip Growth FBGRX. The fund's returns lagged the S&P 500 in the early 2000s. Against that benchmark, the fund looked like a dog. But against its peers, the fund looked pretty good, especially in 2001 and 2002, when it lost less than its rivals. Of course, losing less than other funds is cold comfort for investors, but the fact that Fidelity Blue Chip Growth trailed the S&P 500 in the early 2000s isn't so much a reflection on the fund as it is on the relatively weak performance of large-growth stocks. After all, the S&P follows more than growth stocks; it has a hefty dose of value stocks, too. Fast forward to more recent time: Over the trailing five years through May 2011, large-growth funds have outperformed large-value, and this fund has beaten both the S&P 500 and more than 85% of its peers.

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903

Beta

A measure of a fund's sensitivity to market movements.

The beta of the market is 1.00 by definition. Morningstar calculates beta by comparing a fund's excess return over Treasury bills to the market's excess return over Treasury bills, so a beta of 1.10 shows that the fund has performed 10% better than its benchmark index in up markets and 10% worse in down markets, assuming all other factors remain constant.

Conversely, a beta of 0.85 indicates that the fund's excess return is expected to perform 15% worse than the market's excess return during up markets and 15% better during down markets.

Beta can be a useful tool when at least some of a fund's performance history can be explained by the market as a whole. Beta is particularly appropriate when used to measure the risk of a combined portfolio of mutual funds.

It is important to note that a low beta for a fund does not necessarily imply that the fund has a low level of volatility. A low beta signifies only that the fund's market-related risk is low. (Standard deviation is a measure of a fund's absolute volatility.)

A specialty fund that invests primarily in gold, for example, will usually have a low beta, as its performance is tied more closely to the price of gold and gold-mining stocks than to the overall stock market. Thus, the specialty fund might fluctuate wildly because of rapid changes in gold prices, but its beta will remain low.

R-squared is a necessary statistic to factor into the equation, because it reflects the percentage of a fund's movements that are explained by movements in its benchmark index.

Example: A fund has an alpha of 0.86, a beta of 0.96, and an R-squared of 97. The high R-squared lends further credibility to the accuracy of the fund's alpha and beta. The beta of 0.96 indicates the fund's performance is very close to that of the market, which would be represented by 1.00.

Alpha

A measure of the difference between a fund's actual returns and its expected performance, given its level of risk as measured by beta.

A positive alpha figure indicates the fund has performed better than its beta would predict. In contrast, a negative alpha indicates the fund's underperformance, given the expectations established by the fund's beta.

All MPT statistics (alpha, beta, and R-squared) are based on a least-squares regression of the fund's return over Treasury bills (called excess return) and the excess returns of the fund's benchmark index.

Alpha can be used to directly measure the value added or subtracted by a fund's manager.

Alpha depends on two factors:

- 1) the assumption that market risk, as measured by beta, is the only risk measure necessary
- 2) the strength of the linear relationship between the fund and the index, as it has been measured by R-squared.

In addition, a negative alpha can sometimes result from the expenses that are present in a fund's returns, but not in the returns of the comparison index.



Example: A fund has an alpha of 0.86, a beta of 0.96 and an R-squared of 97. The high R-squared lends further credibility to the accuracy of the fund's alpha and beta. The alpha of 0.86 indicates that the fund produced a return 0.86% higher than its beta would predict.

R-squared

R-squared measures the relationship between a portfolio and its benchmark. It can be thought of as a percentage from 1 to 100.

R-squared is not a measure of the performance of a portfolio. A great portfolio can have a very low R-squared. It is simply a measure of the correlation of the portfolio's returns to the benchmark's returns.

If you want a portfolio that moves like the benchmark, you'd want a portfolio with a high R-squared. If you want a portfolio that doesn't move at all like the benchmark, you'd want a low R-squared.

General Range for R-Squared:

- 70-100% = good correlation between the portfolio's returns and the benchmark's returns
- 40-70% = average correlation between the portfolio's returns and the benchmark's returns
- 1-40% = low correlation between the portfolio's returns and the benchmark's returns

An R-squared of 100 indicates that all movements of a portfolio can be explained by movements in the benchmark. Thus, index funds that invest only in S&P 500 stocks will have an R-squared very close to 100. Conversely, a low R-squared indicates that very few of the portfolio's movements can be explained by movements in its benchmark index. An R-squared measure of 35, for example, means that only 35% of the portfolio's movements can be explained by movements in the benchmark index.

R-squared can be used to ascertain the significance of a particular beta or alpha. Generally, a higher R-squared will indicate a more useful beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance.

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903

Standard Deviation

Standard deviation is probably used more often than any other measure to gauge a fund's risk. Standard deviation simply quantifies how much a series of numbers, such as fund returns, varies around its mean, or average. Investors like using standard deviation because it provides a precise measure of how varied a fund's returns have been over a particular time frame—both on the upside and the downside. With this information, you can judge the range of returns your fund is likely to generate in the future. Morningstar calculates standard deviations for the most recent 36 months of a fund's life. The more a fund's returns fluctuate from month to month, the greater its standard deviation.

For instance, a mutual fund that gained 1% each and every month over the past 36 months would have a standard deviation of zero, because its monthly returns didn't change from one month to the next. But here's where it gets tricky: A mutual fund that lost 1% each and every month would also have a standard deviation of zero. Why? Because, again, its returns didn't vary. Meanwhile, a fund that gained 5% one month, 25% the next, and that lost 7% the next would have a much higher standard deviation; its returns have been more varied.

Standard deviation allows a fund's performance swings to be captured into a single number. For most funds, future monthly returns will fall within one standard deviation of its average return 68% of the time and within two standard deviations 95% of the time.

Let's translate. Say a fund has a standard deviation of four and an average return of 10% per year. Most of the time (or, more precisely, 68% of the time), we can expect the fund's future returns to range between 6% and 14%—or its 10% average plus or minus its standard deviation of four. Almost all of the time (95% of the time), its returns will fall between 2% and 18%, or within two standard deviations of its mean.

Using standard deviation as a measure of risk can have its drawbacks. It's possible to own a fund with a low standard deviation and still lose money. In reality, that's rare. Funds with modest standard deviations tend to lose less money over short time frames than those with high standard deviations. For example, the one-year average standard deviation among ultrashort-term bond funds, which are among the lowest-risk funds around (other than money market funds), is a mere 0.64%.

The bigger flaw with standard deviation is that it isn't intuitive. Sure, a standard deviation of seven is obviously higher than a standard deviation of five, but are those high or low figures? Because a fund's standard deviation is not a relative measure—which means it's not compared with other funds or with a benchmark—it is not very useful to you without some context.

So it's up to you to find an appropriate context for standard deviation. To help determine if your fund's standard deviation is high or low, we suggest you start by looking at the standard deviations of similar funds, those in the same category as the fund you're examining. In May 2011, for example, the average mid-cap growth fund carried a standard deviation of 26.4, while the typical large-value fund's standard deviation was 22.5. You can also compare a fund's standard deviation with that of a relevant index. The S&P 500, a common benchmark for large-cap funds, for example, had a standard deviation of 21.7 in May 2011.

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903



Sharpe Ratio

The Sharpe ratio uses standard deviation to measure a fund's risk-adjusted returns. The higher a fund's Sharpe ratio, the better a fund's returns have been relative to the risk it has taken on. Because it uses standard deviation, the Sharpe ratio can be used to compare risk-adjusted returns across all fund categories.

Developed by its namesake, Nobel Laureate William Sharpe, this measure quantifies a fund's return in excess of our proxy for a risk-free, guaranteed investment (the 90-day Treasury bill) relative to its standard deviation. To calculate a fund's Sharpe ratio, first subtract the return of the 90-day Treasury bill from the fund's returns, then divide that figure by the fund's standard deviation. If a fund produced a return of 25% with a standard deviation of 10 and the T-bill returned 5%, the fund's Sharpe ratio would be 2.0: $(25-5)/10$.

The higher a fund's Sharpe ratio, the better its returns have been relative to the amount of investment risk it has taken. For example, both State Street Global Research SSGRX and Morgan Stanley Inst. European Real Estate MSUAX have enjoyed heady three-year returns of 23.9% through August 2004. But Morgan Stanley sports a Sharpe ratio of 1.09 versus State Street's 0.74, indicating that Morgan Stanley took on less risk to achieve the same return.

The higher a fund's standard deviation, the higher the fund's returns need to be to earn a high Sharpe ratio. Conversely, funds with lower standard deviations can sport a higher Sharpe ratio if they have consistently decent returns. Keep in mind that even though a higher Sharpe ratio indicates a better historical risk-adjusted performance, this doesn't necessarily translate to a lower-volatility fund. A higher Sharpe ratio just means that the fund's risk/return relationship is more proportional or optimal.

John E. Lococo

Registered Representative/Investment Advisory Affiliate
Securities & Advisory Services offered through American Investors Company
Member FINRA/SIPC, Registered Investment Advisor

Offices

888 North First St., Suite D; San Jose, CA 95112
1050 Northgate Dr., Suite 333; San Rafael, CA 94903