



Fool.com: Analyzing Stocks [Investing Basics]

Introduction

Investing, like most other things, requires that you have a general philosophy about how to do things in order to avoid careless errors. Would you make a souffle without a recipe? Would you play cello in the London Philharmonic Orchestra without sheet music? Would you aim a shuffleboard disk without figuring out whether you're trying to knock off your own color or your opponent's? We hope not. And while investing is not nearly as difficult as these other challenges (especially the souffle), you certainly need a considered plan before investing your hard-earned savings.

Fundamental Analysis - Buying a Business (Value, Growth, Income, GARP, Quality)

Many people rightly believe that when you buy a share of stock you are buying a proportional share in a business. As a consequence, to figure out how much the stock is worth, you should determine how much the business is worth. Investors generally do this by assessing the company's financials in terms of per-share values in order to calculate how much the proportional share of the business is worth. This is known as "fundamental" analysis by some, and most who use it view it as the only kind of rational stock analysis.

Although analyzing a business might seem like a straightforward activity, there are many flavors of fundamental analysis. Investors often create oppositions and subcategories in order to better understand their specific investing philosophy. In the end, most investors come up with an approach that is a blend of a number of different approaches. Many of the distinctions are more academic inventions than actual practical differences. For instance, value and growth have been codified by economists who study the stock market even though market practitioners do not find these labels to be quite as useful. In the following descriptions, we will focus on what most investors mean when they use these labels, although you always have to be careful to double-check what someone using them really means.

Value. A cynic, as the saying goes, is someone who knows the price of everything and the value of nothing. An investor's purpose, though, should be to know both the price and the value of a company's stock. The goal of the value investor is to purchase companies at a large discount to their intrinsic value - what the business would be worth if it were sold tomorrow. In a sense, all investors are "value" investors - they want to buy a stock that is worth more than what they paid. Typically those who describe themselves as value investors are focused on the liquidation value of a company, or what it might be worth if all of its assets were sold tomorrow. However, value can be a very confusing label as the idea of intrinsic value is not specifically limited to the notion of liquidation value. Novices should understand that although most value investors believe in certain things, not all who use the word "value" mean the same thing.

The person viewed as providing the foundation for modern value investing is Benjamin Graham, whose 1934 book *Security Analysis* (co-written with David Dodd) is still widely used today. Other investors viewed as serious practitioners of the value approach include Sir John Templeton and Michael Price. These value investors tend to have very strict, absolute rules governing how they purchase a company's stock. These rules are usually based on relationships between the current market price of the company and certain business fundamentals. Some examples include:

- [Price/earnings ratios](#) (P/E) below a certain absolute limit
- [Dividend yields](#) above a certain absolute limit

- [Book value](#) per share at a certain level relative to the share price
- Total sales at a certain level relative to the company's [market capitalization](#), or market value

Growth. Growth investing is the idea that you should buy stock in companies whose potential for growth in sales and earnings is excellent. Growth investors tend to focus more on the company's value as an ongoing concern. Many plan to hold these stocks for long periods of time, although this is not always the case. At a certain point, "growth" as a label is as dysfunctional as "value," given that very few people want to buy companies that are not growing. The concept of growth investing crystallized in the 1940s and the 1950s with the work of T. Rowe Price, who founded the mutual fund company of the same name, and Phil Fisher, who wrote one of the most significant investment books ever written, *Common Stocks and Uncommon Profits*.

Growth investors look at the underlying quality of the business and the rate at which it is growing in order to analyze whether to buy it. Excited by new companies, new industries, and new markets, growth investors normally buy companies that they believe are capable of increasing sales, earnings, and other important business metrics by a minimum amount each year. Growth is often discussed in opposition to value, but sometimes the lines between the two approaches become quite fuzzy in practice.

Income. Although today common stocks are widely purchased by people who expect the shares to increase in value, there are still many people who buy stocks primarily because of the stream of [dividends](#) they generate. Called income investors, these individuals often entirely forego companies whose shares have the possibility of [capital appreciation](#) for high-yielding dividend-paying companies in slow-growth industries. These investors focus on companies that pay high dividends like [utilities](#) and [real estate investment trusts](#) (REITs), although many times they may invest in companies undergoing significant business problems whose share prices have sunk so low that the [dividend yield](#) is consequently very high.

GARP. GARP, aside from being the name of the title character to John Irving's *The World According to Garp*, is an acronym for growth at a reasonable price. The world according to GARP investors combines the value and growth approaches and adds a numerical slant. Practitioners look for companies with solid growth prospects and current share prices that do not reflect the intrinsic value of the business, getting a "double play" as earnings increase and the price/earnings (P/E) ratios at which those earnings are valued increase as well. Peter Lynch, who may be familiar to you through his starring role in Fidelity Investments commercials with Lily Tomlin and Don Rickles, is GARP's most famous practitioner.

One of the most common GARP approaches is to buy stocks when the P/E ratio is lower than the rate at which earnings per share can grow in the future. As the company's earnings per share grow, the P/E of the company will fall if the share price remains constant. Since fast-growing companies normally can sustain high P/Es, the GARP investor is buying a company that will be cheap tomorrow if the growth occurs as expected. If the growth does not come, however, the GARP investor's perceived bargain can disappear very quickly.

Because GARP presents so many opportunities to focus just on numbers instead of looking at the business, many GARP approaches, like the nearly ubiquitous [PEG ratio](#) and Jim O'Shaughnessy's work in *What Works on Wall Street* are really hybrids of fundamental analysis and another type of analysis -- quantitative analysis.

Quality. Most investors today use a hybrid of value, growth, and GARP approaches. These investors are looking for high-quality businesses selling for "reasonable" prices. Although they do not have any shorthand rules for what kind of numerical relationships there should be between the share price and business fundamentals, they do share a similar philosophy of looking at the company's valuation and at the inherent quality of the company as measured both quantitatively by concepts like [Return on Equity](#) (ROE) and qualitatively by the competence of management. Many of them describe themselves as value investors, although they concentrate much more on the value of the company as

an ongoing concern rather than on liquidation value.

Warren Buffett of Berkshire Hathaway is probably the most famous practitioner of this approach. He studied under Benjamin Graham at Columbia Business School but was eventually swayed by his partner, Charlie Munger, to also pay attention to Phil Fisher's message of growth and quality.

Arguments Against Fundamental Analysis. Those who do not use fundamental analysis have two major arguments against it. The first is that they believe that this type of investing is based on exactly the kind of information that all major participants in publicly traded markets already know, so therefore it can provide no real advantage. If you cannot get a leg up by doing all of this fundamental work understanding the business, why bother? The second is that much of the fundamental information is "fuzzy" or "squishy," meaning that it is often up to the person looking at it to interpret its significance. Although gifted individuals can succeed, this group reasons, the average person would be better served by not paying attention to this kind of information.

Quantitative Analysis - Buying the Numbers

Pure quantitative analysts look only at numbers with almost no regard for the underlying business. The more you find yourself talking about numbers, the more likely you are to be using a purely quantitative approach. Although even fundamental analysis requires some numerical inputs, the primary concern is always the underlying business, focusing on things like management's expertise, the competitive environment, the market potential for new products, and the like. Quantitative analysts view these things as subjective judgments, and instead focus on the incontrovertible objective data that can be analyzed.

One of the principal minds behind fundamental analysis, Benjamin Graham, was also one of the original proponents of this trend. While running the Graham-Newman partnership, Graham exhorted his analysts to never talk to management when analyzing a company and focus completely on the numbers, as management could always lead one astray.

In recent years as computers have been used to do a lot of number crunching, many "quants," as they like to call themselves, have gone completely native and will only buy and sell companies on a purely quantitative basis, without regard for the actual business or the current valuation - a radical departure from fundamental analysis. "Quants" will often mix in ideas like a stock's [relative strength](#), a measure of how well the stock has performed relative to the market as a whole. Many investors believe that if they just find the right kinds of numbers, they can always find winning investments. D. E. Shaw is widely viewed as the current King of the Quants, using sophisticated mathematical algorithms to find minute price discrepancies in the markets. His partnership sometimes accounts for as much as 50% of the trading volume on the New York Stock Exchange in a single day.

Company Size. Some investors purposefully narrow their range of investments to only companies of a certain size, measured either by [market capitalization](#) or by [revenues](#). The most common way to do this is to break up companies by [market capitalization](#) and call them micro-caps, small-caps, mid-caps, and large-caps, with "cap" being short for "capitalization." Different-size companies have shown different returns over time, with the returns being higher the smaller the company. Others believe that because a company's market capitalization is as much a factor of the market's excitement about the company as it is the size, revenues are a much better way to break up the company universe. Although there is no set breakdown used by all investors, most distinctions look something like this:

MICRO - \$100 million or less

SMALL - \$100 million to \$500 million

MID - \$500 million to \$5 billion

LARGE - \$5 billion or more

The majority of publicly traded companies fall in the micro or small categories. Some statisticians believe that the perceived outperformance of these smaller companies may have more to do with "survivor" bias than actual superiority, as many of the databases used to do this performance testing routinely expunged bankrupt companies until pretty recently. Since smaller companies have higher rates of bankruptcy, excluding this factor helps "juice" up their historical returns as a result. However, this factor is still being debated.

Screen-Based Investing. Many quantitative analysts use "screens" to select their investments, meaning that they use a number of quantitative criteria and examine only the companies that meet these criteria. As the use of computers has become widespread, this approach has increased in popularity because it is easy to do. Screens can look at any number of factors about a company's business or its stock over many time periods.

While some investors use screens to generate ideas and then apply fundamental analysis to assess those specific ideas, others view screens as "mechanical models" and buy and sell purely based on what comes up on the screen. These investors claim that using the screen removes emotions from the investing process. (Those who do not use screens would counter that using a screen mechanically also removes most of the intelligence from the process.) One of the proponents of using screens as a starting point is Eric Ryback, and one of the most famous advocates of screens as a mechanical system is James O'Shaughnessy.

Momentum. Momentum investors look for companies that are not just doing well, but that are flying high enough to get nose bleeds. "Well" is defined as either relative to what investors were expecting or relative to all public companies as a whole. Momentum companies often routinely beat analyst estimates for earnings per share or revenues or have high quarterly and annual earnings and sales growth relative to all other companies, particularly when the rate of this growth is increasing every quarter. This kind of growth is viewed as a sign that things are really, really good for the company. High [relative strength](#) is often a category in momentum screens, as these investors want to buy stocks that have outperformed all other stocks over the past few months.

CANSLIM. CANSLIM is a system pioneered by William J. O'Neil that is a hybrid of quantitative analysis and technical analysis, detailed in his book *How to Make Money in Stocks*. According to *Investor's Business Daily*, O'Neil's newspaper, the "C" and "A" of the CANSLIM formula tell investors to look for companies with accelerating Current and Annual earnings. The "N" stands for New, as in new products, new markets, or new management. "S" stands for Small capitalization and big volume demand. "L" tells investors to figure out whether the company is a Leader or Laggard. "I" has them look for Institutional sponsorship, and "M" concentrates on the direction of the Market. O'Neil originally created *Investor's Business Daily* to be a tool that investors could use to practice CANSLIM, although it has become a very widely read business publication by all types of investors. CANSLIM also includes components of the next type of analysis - technical analysis.

Arguments Against Quantitative Analysis. Because quantitative analysis hinges on screens that anyone can use, as computing horsepower becomes cheaper and cheaper many of the pricing inefficiencies quantitative analysis finds are wiped out soon after they are discovered. If a particular screen has generated 40% returns per year and becomes widely known, and if lots of money flows into the companies that the screen identifies, the returns will start to suffer.

As "fuzzy" as fundamental analysis might be, there are often times that knowing even a little about the company you are buying can help a lot. For instance, if you are using a high-relative-strength screen, you should always check and see if the companies you find have risen in price because of a merger or an acquisition. If this is the case, then the price will probably stay right where it is, even if the "screen" you used to pick this company has generated high annual returns in the past.

Technical Analysis - Buying the Chart

What would you do if you truly believed that all information about publicly traded companies was efficiently distributed and that nobody could get an edge on anyone else by either understanding the business or analyzing the numbers? You might consider simply giving up on beating the market's returns by buying an index fund. Some investors have taken an alternate route, attempting to create a set of tools that might tell them what other investors thought about a stock at any given time, particularly looking for the footprints of large institutional investors that tend to cause the most extreme price changes. Investors who focus on this kind of psychological information call themselves technical analysts and believe that charts can sometimes provide insight into the psychology surrounding a stock. Although there are plenty of pure chartists, some investors just use charts to time investments after looking at them from a fundamental or quantitative perspective.

There is no set of clearly defined approaches to technical analysis, but there are a number of different tools. The most important indicators seem to be specific chart formations that show certain price movements at times when trading [volume](#) is at a certain level. The most common kinds of charts include point and figure charts, logarithmic charts, and Japanese candlesticks, to name a few.

Arguments Against Technical Analysis. Technical analysis assumes that certain chart formations can indicate market psychology about either an individual stock or the market as a whole at key points. However, most of the statistical work done by academics to determine whether the chart patterns are actually predictive has been inconclusive at best, as detailed in Burton Malkiel's *A Random Walk Down Wall Street*. Much of the faith in technical analysis hinges on anecdotal experience, not any kind of long-term statistical evidence, unlike certain quantitative and fundamental methodologies that have been shown in many instances to be pretty predictive. Critics of technical analysis feel that it is basically as useful as reading tea leaves.

Trading - Doing What Works

As trading commissions have fallen and more and more people have gained access to instantaneous data about stock prices, trading has become more and more popular, and very likely much too popular, somewhat like Madonna or Beanie Babies. Traders normally use a hodgepodge of fundamental, quantitative, and technical techniques with a short-term orientation. Trading tends to be a highly charged experience where one looks to make a few percentage points from each trade. Although widespread, trading is far from a systematized, philosophical body of knowledge that is easily explained in a few paragraphs.

Many novice investors, lulled by the apparently easy casino-like gains possible in trading, tend to lose a lot of money before they realize that when there are thousands of other traders out there looking for the same things, it is often those who are fastest, have the most experience, and own the best equipment that make money - normally not the people just starting out. All traders emphasize that successful trading requires careful attention, discipline, and a lot of work, so anyone who thinks that he can use a Quotrek in between meetings to make a fortune might want to reconsider.

Arguments Against Trading. Trading is clearly a time-consuming adventure. Although there are a number of very famous and successful traders, many individuals ignore the fact that these traders are well equipped to trade and have all day to do so. Given the time and effort most successful traders put into their trading, the potential for amateurs to reap the same rewards with less effort and fewer resources is very low. With so much money competing in the one-day to one-year investment time-frame, an individual with a minimal amount of time will probably be more successful finding businesses to own for the long term and not trying to engage in high-octane, almost gambling-like behavior.

Summary and Next Steps

At this point you can probably recite backwards and forwards each element of such alphabet-soup investing

approaches as GARP and CANSLIM. You've gained a general sense of investing philosophies without fancy acronyms, too. We've run down the basics on fundamental, quantitative, and technical approaches to picking stocks. Chances are, like most investors, you'll find elements of several that suit your investing style. As your education continues, you'll develop your own investing philosophy that targets your needs and goals with bull's-eye precision. If you're itching to start putting your newfound philosophy to practice, then join us in [Step 7. Picking a Broker](#) where we cover the nuts and bolts of finding the best broker to execute your investing ideas. See you there.

For further reading about finding good investments, including all of the books mentioned within this step, try our [bookshelf](#).

The Fool's Glossary

Book Value. The current value of an asset on a company's balance sheet according to its accounting conventions. The shareholders' equity on a company's balance sheet is the book value for that entire company. Many times when investors refer to book value, they actually mean book value per share, which is the shareholder's equity (or book value) divided by the number of shares outstanding. As the book value is theoretically what a company could be sold for (liquidation value), this book value number is sometimes used as a rough guide as to whether or not the shares are undervalued.

Capital Appreciation. One of the two components of total return, capital appreciation is how much the underlying value of a security has increased. If you bought a stock at \$10 and it has risen to \$13, you have enjoyed a 30% return from the appreciation of the original capital you invested. Dividend yield is the other component of total return.

Dividend Yield. A ratio of a company's annual cash dividends divided by its current stock price expressed in the form of a percentage. To get the expected annual cash dividend payment, take the next expected quarterly dividend payment and multiply that by four. For instance, if a \$10 stock is expected to pay a 25 cent quarterly dividend next quarter, you just multiple 25 cents by 4 to get \$1 and then divide this by \$10 to get a dividend yield of 10%.

$$\text{Dividend Yield} = \frac{\text{Ann. Div.}}{\text{Price}} = \frac{\$0.25 * 4}{\$10} = 0.10 = 10\%$$

Many newspapers and online quote services will include dividend yield as one of the variables. If you are uncertain whether the current quoted dividend yield reflects a recent increase in the dividend a company may have made, you can call the company and ask them what the dividend per share they expect to pay next quarter will be.

Earnings Per Share (EPS). Earnings, also known as net income or net profit, is the money that is left over after a company pays all of its bills. For many investors, earnings are the most important factor in analyzing a company. To allow for apples-to-apples comparisons, those who look at earnings use earnings per share (EPS).

You calculate the earnings per share by dividing the dollar amount of the earnings a company reports over the past 12 months by the number of shares it currently has outstanding. Thus, if XYZ Corp. has 1 million shares outstanding and has earned \$1 million in the past 12 months, it has an EPS of \$1.00.

$$\frac{\$1,000,000}{1,000,000 \text{ shares}} = \$1.00 \text{ in earnings per share (EPS)}$$

Market Capitalization. The current market value of all of a company's shares outstanding. To calculate market value, you take the number of shares outstanding and multiply them by the current price of each share. You can find

information about shares outstanding from the company's last quarterly report or any online quote service.

For instance, if a company has 10 million shares outstanding and trades at \$13 per share, the market capitalization is \$130 million.

$$\begin{aligned}\text{Market Cap.} &= \text{Shares Outstanding} * \text{Share Price} \\ &= 10 \text{ million} * \$13 = \$130 \text{ million}\end{aligned}$$

Price/Earnings Ratio (P/E). Earnings per share alone mean absolutely nothing. In order to get a sense of how expensive or cheap a stock is, you have to look at those earnings relative to the stock price. To do this, most investors employ the price/earnings (P/E) ratio. The P/E ratio takes the stock price and divides it by the last four quarters' worth of earnings. If XYZ Corp. is currently trading at \$15 a share with \$1.00 of earnings per share (EPS), it would have a P/E of 15.

$$\frac{\$15 \text{ share price}}{\$1.00 \text{ in trailing EPS}} = 15 \text{ P/E}$$

Real Estate Investment Trusts (REITs). REITs are a specialized form of equity that allows investors to own a portion of a group of real estate properties, although many investors think of them as an alternative to bonds. REITs have become increasingly popular over the past decade. Granted special tax status by the Internal Revenue Service, REITs pay out at least 95% of their earnings in the form of dividends to shareholders, often offering healthy dividend yields of the same magnitude as bonds. Even better, as REITs acquire more property and increase the value of the properties they own, the value of the equity increases as well, providing a nice total return. For more information on REITs, check [the website](#) for the National Association of REITs (NAREIT).

Relative Strength. Relative strength, also known as relative price strength, rates the performance of a stock versus the performance of the market as a whole over a given time period. The rating system gives a numerical grade - just like the ones Mr. Spicer used to scrawl in bright red ink on your algebra quizzes - to the performance of a stock over a given period, normally the past 12 months. Thus, relative strength is a momentum indicator.

The most popular form of relative strength ratings are those published in *Investor's Business Daily*, which go from 1 to 99. A relative strength of 95, for example, indicates a wonderful stock, one that has outperformed 95% of all other U.S. stocks over the past year. However, given that relative strength is only a mathematical relationship between the stock's performance and an index's performance, many others have created their own relative strength measures.

Revenues. Also known as sales, revenues are how much the company has sold over a given period. Annual revenues would be the sales for a given year, whereas quarterly revenues would be the sales for a given quarter.

Sales. Also known as revenues, sales are literally how much the company has sold over a given period. Annual sales would be the sales for a given year, whereas quarterly sales would be the sales for a given quarter.

Utilities. A business that provides a service essential to almost everyone is called a utility. These businesses are almost always under some form of regulation by the government and normally have a monopoly position in a certain region. Electric companies, natural gas providers, and local phone companies are often referred to as utilities.

Volume. The number of shares traded on a given day is known as the volume. Many investors look at volume over a month or a year to come up with average daily volume. Market watchers will say a company has traded at a certain number of times the average daily volume, giving the investor a sense of how active the stock was on a certain day relative to previous days. When major news is announced, a stock can trade as much as 20 or 30 times its average

daily volume, particularly if the average daily volume is very low.

The average number of shares traded gives an investor an idea of a company's liquidity - how easy it is to buy and sell a particular stock. Highly liquid stocks trade easily in large batches with low transaction costs. Illiquid stocks trade infrequently and large sales often cause the price to rise or fall dramatically. Illiquid stocks on the Nasdaq also tend to carry the largest spreads, the difference between the buying price and the selling price.