

PART **One**

The Investing Environment

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CHAPTER 1

Why Analyze a Security?

This chapter covers the origin and evolution of security analysis, which focused initially on publicly traded stocks and bonds. The herd psychology and gamesmanship that are endemic to the capital markets are discussed, along with modern valuation approaches.

Some investors analyze securities to reduce the risk and the gambling aspects of investing. They need the confidence supplied by their own work. Other investors seek value where others haven't looked. They're on a treasure hunt. Still others have fiduciary reasons. Without documentation to justify an investment decision, clients can sue them for malpractice should investment performance waver. Many investors analyze shares for the thrill of the game. They enjoy pitting their investment acumen against other professionals.

Security analysis is a field of study that attempts to evaluate businesses and their securities in a rational way. By performing a rigorous analysis of the factors affecting a company's worth, security analysts seek to find equities that present a good value relative to other investments. In doing such work, professional analysts refute the efficient market theory, which suggests that a monkey throwing darts at the *Wall Street Journal* will, over time, have a performance record equal to the most experienced money manager. In fact, the proliferation of business valuation techniques as well as advances in regulation and information flow contributes to the market's transparency. Nevertheless, on a regular basis, pricing inefficiencies occur. An astute observer takes advantage of the discrepancies.

THE ORIGINS OF SECURITY ANALYSIS

Benjamin Graham and David Dodd made the business of analyzing investments into a profession. With the publication of their book, *Security Analysis*, in 1934, they offered investors a logical and systematic way in which to evaluate the many securities competing for their investment dollars and their process was eventually copied by M&A, private equity, and other business valuation professionals. Before then, methodical and reasoned analysis was in short supply on Wall Street. The public markets were dominated by speculation. Stocks were frequently purchased

on the basis of hype and rumor, with little business justification. Even when the company in question was a solid operation with a consistent track record, participants failed to apply quantitative measures to their purchases. Procter & Gamble was a *good company* whether its stock was trading at 10 times or 30 times earnings, but was it a *good investment* at 30 times earnings, relative to other equities? Investors lacked the skills to answer this question. *Security Analysis* endeavored to provide these skills.

The systematic analysis in place at the time tended to be centered in bond rating agencies and legal appraisals. Moody's Investors Service and Standard & Poor's started assigning credit ratings to bonds in the early 1900s. The two agencies based their ratings almost entirely on the bond's collateral protection and the issuer's historical track record; they gave short shrift to qualitative indicators such as the issuer's future prospects and management depth. In a bond market dominated by railroad and utility bonds, the rating agencies' methodology lacked transferability to other industries and the equity markets. On the equity side, in-depth evaluations of corporate shares were found primarily in legal appraisals, typically required for estate tax calculations, complicated reorganization plans, and contested takeover bids. Like credit ratings, the equity appraisals suffered from an overdependence on historical data at the expense of a careful consideration of future prospects.

Graham and Dodd suggested that certain common stocks were prudent investments, if investors took the time to analyze them properly (see Exhibit 1.1). Many finance professors and businesspeople were surprised at this notion, thinking the two academics were brave to make such a recommendation. Only five years earlier, the stock market had suffered a terrible crash, signaling the beginning of a wrenching economic depression causing massive business failures and huge job losses.

The market drop of 1929–1933 outpaced the 2007–2009 crash. On October 28, 1929, the Dow Jones Industrial Average fell 13 percent and an additional 12 percent the next day. The two-day drop of 23 percent followed a decline that began on September 3, when the Industrial Average peaked at 381, and then declined 22 percent in the weeks preceding October 28. The market staged modest recoveries in 1930 and 1931, but the 1929 drop presaged a gut-wrenching descent in stock prices, which wasn't complete until February 1933. Over the three-year period, the Dow dropped by 87 percent. The index didn't return to its 1929 high until 1954, 25 years later. In contrast, the Dow's sizeable decline from 2007 to 2009 was 54 percent, and the 1999–2002 bear market represented a 34 percent drop.

At the time of the publication of *Security Analysis*, equity prices had doubled from 1933's terrible bottom, but they were only one-quarter of the 1929 high. Shaken

EXHIBIT 1.1 Graham and Dodd Approach to Stock Selection

1. Study the available facts.
2. Prepare an organized report.
3. Project earnings and related data.
4. Draw valuation conclusions based on established principles and sound logic.
5. Make a decision.

by the volatile performance of equities, the public considered equity investment quite speculative. Not only was there a dearth of conservative analysis, but the market was still afflicted with unregulated insider trading, unethical sales pitches, and unscrupulous brokers. For two professionals to step into this area with a scholarly approach was radical indeed.

The publication of *Security Analysis* coincided with the formation of the Securities and Exchange Commission (SEC). Designed to prevent a repeat of the 1920s abuses, the SEC was given broad regulatory powers over a wide range of market activities. It required security issuers to disclose all material information and to provide regular public earnings reports. This new information provided a major impetus to the security analysis profession. Previously, issuers were cavalier about what information they provided to the public. Analysts, as a result, operated from half-truths and incomplete data. With the regulators' charge of full disclosure for publicly traded corporations, practitioners had access to more raw material than ever before. Added to this company-specific data was the usual storehouse of economic, market, and industry material available for study. It soon became clear that a successful analyst needed to allocate his time and resources efficiently among sources of information to produce the best results.

NO PROFIT GUARANTEE

It is important to remember that security analysis doesn't presume an absolute value for a given security, nor does it guarantee the investor a profit. After undertaking the effort to study a stock, an analyst derives a range of value, since the many variables involved reduce the element of certainty. After an investigation, assume the analyst concludes that Random Corp. shares are worth \$8 to \$10 per share. This conclusion isn't worth much if the stock is trading at \$9, but it is certainly valuable if the stock is trading at \$4, far below the range, or at \$20, which is far above. In such cases, the difference between the conclusion and the market prompts an investment decision, either *buy* or *sell* (see Exhibit 1.2).

If the analyst acts on his conclusion and buys Random Corp. stock at \$4 per share, he has no assurance that the price will reach the \$8 to \$10 range. The broad market might decline without warning or Random Corp. might suffer an unexpected business setback. These variables can restrict the stock from reaching appraised value. Over time, however, the analyst believes that betting on such large differences provides superior investment results.

	\$0	\$8	\$10	\$20	
Buy	Buy the stock when its price is way below your appraisal.	Your valuation conclusion is \$8 to \$10 per share.	Sell the stock when its price substantially exceeds your appraisal.		Sell

EXHIBIT 1.2 Random Corp. Stock

DAY-TO-DAY TRADING AND SECURITY ANALYSIS

For the most part, participants in the stock market behave rationally. Day-to-day trading in most stocks causes few major price changes, and those large interday differentials can usually be explained by the introduction of new information. A lot of small price discrepancies are attributable to a few professionals having a somewhat different interpretation of the same set of facts available to others. This results in one investor believing a stock's price will change due either to (1) the market conforming to his opinion of the stock's value over time, or (2) the future of the underlying business unfolding as he anticipates.

In the first instance, perhaps the investor's research uncovered a hidden real estate value on the company's balance sheet. The general public is unaware of this fact. As soon as others acknowledge the extra value, the stock price should increase. In the second situation, the investor has more optimistic growth assumptions than the market. Should the investor's predictions come true, the stock price should increase accordingly. Perhaps 300,000 individuals follow the markets full-time, so there are plenty of differing views. Even a small segment of investors with conflicting opinions can cause significant trading activity in a stock.

It is not unusual that investors using similar methods of analysis come up with valuations that differ by 10 to 15 percent. This small percentage is sufficiently large to cause active trading. As we discuss later, the popular valuation techniques require a certain amount of judgment with respect to sifting information and applying quantitative analysis, so reasonable people can easily derive slightly dissimilar values for the same stock. As these differences become more profound, the price of a given stock becomes more volatile, and divergent valuations do battle in the marketplace. Today, this price volatility is evident in many high-tech stocks. The prospects of the underlying businesses are hard to appraise, even for experienced professionals.

HERD PSYCHOLOGY AND SECURITY ANALYSIS

Ideally, a security analyst studies the known facts of a business, considers its prospects, and prepares a careful evaluation. From this effort a buy or sell recommendation is derived for the company's shares. This valuation model, while intrinsically sensible, understates the need to temper a rational study with due regard for the vagaries of the stock market.

At any given time, the price behavior of certain individual stocks and selected market sectors is governed by forces that defy a studied analysis. Key elements influencing equity values in these instances may be the emotions of the investors themselves. Market participants are human beings, after all, and are subject to the same impulses as anyone. Various emotions affect the investor's decision-making process, but two sentiments have the most lasting impact: *fear* and *greed*. Investors in general are scared of losing money, and all are anxious to make more profits. These feelings become accentuated in the professional investor community, whose members are caught up in the treadmill of maintaining good short-term performance.

Of the two emotions, fear is by far the stronger, as evidenced by the fact that stock prices fall faster than they go up. Afraid of losing money, people demonstrate a

classic herd psychology upon hearing bad news, and often rush to sell a stock before the next investor. Many stocks drop 20 to 30 percent in price on a single day, even when the fresh information is less than striking. In the crash of 1987, the Dow Jones Index fell 23 percent in one day on no real news. Buying frenzies, in contrast, take place over longer stretches of time, such as weeks or months. Exceptions include the shares of takeover candidates and initial public offerings.

True takeover stocks are identified by a definitive offer from a respectable bidder. Because the offers typically involve a substantial price premium for control, investors rush in to acquire the takeover candidate's shares at a price slightly below the offer. The size of the discount reflects uncertainties regarding the timing and ultimate completion of the bid, but a seasoned practitioner can make a reasoned decision. Occurring as frequently as real bids are rumored bids. Here, speculators acting on takeover rumors inflate a stock's price in anticipation of a premium-priced control offer. Frequently, the rumors are from questionable sources, such as a promoter trying to sell his own position in the stock, so the price run-up is driven primarily by emotion, game theory, and momentum investing.

All of these factors play a role in the next hard-to-analyze business—the initial public offering (IPO). Many IPOs rise sharply in price during their first few days of trading, such as Chipotle Mexican Grill. It went public in January 2006 at \$22 per share, and jumped 100 percent to \$44 per share on the first day of trading. Within three months the stock was selling for \$63. Unlike existing issues, an IPO has no trading history, so the underwriters setting the offering price make an educated guess on what its value is. At times this guess is conservative and the price rises accordingly. More frequently, the lead underwriters lowball the IPO price in order to ensure that the offering is fully sold, protecting themselves from their moral obligation to buy back shares from unsatisfied investors if the price were to fall steeply.

When underwriters get their publicity machines working and an IPO becomes hot, a herd psychology can infect investors, who then scramble over one another to buy in anticipation of a large price jump. At this point, a dedicated evaluation of the IPO has little merit. For a hot deal, many equity buyers operate by game theory—what's the other guy thinking and what's he going to pay for this issue? Others use momentum investing logic: I must buy the stock because others are buying it.

MOMENTUM INVESTORS

Extremely influential in short-term pricing moves, momentum investors predict individual stock values based on trading patterns that have happened repeatedly, either in the relevant stock or in similar situations. Thus, if they notice the beginning of a downward price trend, they may sell the stock in anticipation of the pattern reaching completion. Naturally, the selling pattern may be a self-fulfilling prophecy as other momentum investors are motivated by the increased selling activity and follow suit.

Often lumped together with emotional investors by the media, momentum players attempt to take advantage of the common belief that stocks move in discernible patterns. Two of Wall Street's oldest expressions, "You can't fight the tape" and "You can't buck the trend," are evidence of the futility of injecting a security

analysis bias into any price move driven by emotional and momentum factors. The herd instinct that is set off by such behavior has contributed to several market crashes in the past, and stock exchanges reserve the right to stop computerized program trading, which activates upon the observance of such trends, if market indexes drop too much in a given day.

GAME THEORY AND SECURITY ANALYSIS

The average portfolio manager does not have a controlling position in his shareholdings. Public corporations are owned by numerous other equity investors, perhaps numbering in the thousands. With this diversity of ownership, the portfolio manager's return in a given stock, or in the general market, is dependent on the behavior of his rival investors. If he holds on to a stock because he thinks it's a good investment, while others are selling because they think the opposite, he loses in the short run. Future results of the company may bear out his original analysis, but in the present he looks bad. This is a dangerous position in the investment industry, which tends to measure results quarter by quarter rather than year by year. For this reason, knowing how others think and react to events is critical to success.

Some investors bring this dynamic into the realm of game theory and attempt to influence the market's thought processes. Several examples are instructive:

- *False takeover.* An investor with a reputation for hostile takeovers acquires a position in a company's shares. He files a public notice or leaks his interest to the rumor mill. As other investors react to a potential takeover, they buy the stock and its price increases. In this case, the takeover artist has no intention of bidding for the company. He sells his shares into the buying activity sparked by his original interest, thus realizing a quick profit from speculative expectations. Equity analyst Clinton Morrison remarked, "It's called a self-fulfilling prophecy. You advertise your position and then you sell into it."
- *Phony promotion.* A key market player, such as a large fund manager, indicates publicly his strong interest in a certain industry sector, such as cable television. As other investors follow the fund manager's direction by purchasing cable TV stocks, the manager busily unloads his own holdings into the trading strength. As an example, one large fund manager was criticized in 2007 for advocating a software stock in public, when his fund was selling it in private.
- *Story stocks.* A professional investor establishes a significant position in a little-known company. Using financial publicists, stock newsletters, and aggressive brokers, he weaves a story behind the scenes about the company's unrecognized earnings potential. Although the analysis is sketchy, the growth story is entertaining. Carlton Lutts, editor of the *Cabot Market Letter*, summarized such game theory dynamics well: "A stock, like love, thrives on romance and dies on statistics." As the drum beating becomes louder and louder, a cross section of investors takes notice. They buy in and the price climbs. When the professional's profit objective is reached, he bails out of his position and winds down the publicity machine. Shortly thereafter the stock price collapses. This strategy is most effective with early stage companies and technology firms. Their

business prospects are difficult to analyze, making fanciful forecasts hard to dispute. Sometimes, just the rumor of an important investor is enough. In 2007, Macy's stock jumped eight points on rumors that Edward Lampert, the hedge fund guru, was building a position. When these rumors proved untrue, the stock fell 20 percent in days.

In each of the preceding situations, the outcome of a competitive move by one investor depends on the reactions of his rivals, much like a good chess game. A seemingly irrational reaction by competitors may make a fine strategic move unsuccessful. What happens if a professional feeds the takeover rumor mill and no one buys? The risk of the game is that his competitors don't act as expected. This risk decreases if he commands a visible leadership role in the market and has a strong public relations operation. Carl Icahn, for example, is a top game player, running a fund with billions under management and having a history of shaking things up. Of course, the selection of the target stock must be made carefully. Competitors may see through a promoter's strategy or simply ignore the new information presented to them.

THE PREMISE OF SECURITY ANALYSIS

Practicing security analysts acknowledge the impact of human emotions, herd behavior and game theory on stock prices, and they factor these elements into their investment conclusions. Generally, such influences are short-term in nature and, sooner or later, most share prices reflect a rational view of underlying economic values. This rational view is far from absolute. Investment evaluation is not an exact science, and reasonable people examining the same facts are bound to have differences. Over the long haul, an analytical approach toward stock selection offers superior results, as occasional instances of price irrationality provide obvious opportunities. Maintaining a discipline in emotional markets is one of the analyst's hardest challenges. Few people want to face the ridicule of going against the crowd by sticking to accepted standards, despite the fact that equity investors invariably return to normal measures of determining value after periodic infatuations with untested themes. These notions of rationality and consistency form the bedrock of the security analysis profession.

A large part of a stock's price is set by expectations of its future growth in earnings. While a competent study of the past frequently provides the basis for an earnings projection, even the most talented practitioner has a limited ability to predict the growth rate of a given company for years ahead. This implies that a major portion of any analyst's valuation is the product of educated guessing. As with similar vocations, many conclusions look terribly wrong with 20/20 hindsight. Sometimes the actual earnings of a company come in substantially lower than forecast data, and the stock price drops accordingly. An analyst who recommended the stock has made a mistake. But level-headed investors, realizing the field's limitations, don't demand perfection. Rather, excellence can be achieved by partial success. In baseball, a .300 hitter fails 7 out of 10 times at bat, yet he is among the best. For security analysts, the grading process is more complicated than baseball, but a professional who is right 60 to 70 percent of the time is considered exceptional. Luck plays a role in compiling

this kind of track record, but over time the importance of chance diminishes in favor of skill.

Graham and Dodd summarized the analyst's requirements many years ago in *Security Analysis*:

To do these jobs credibly the analyst needs a wide equipment. He must understand security forms, corporate accounting, the basic elements that make for the success or failure of various kinds of businesses, the general workings not only of our total economy but also of its major segments, and finally the characteristic fluctuations of our security markets. He must be able to dig for facts, to evaluate them critically, and to apply his conclusions with good judgment and a fair amount of imagination. He must be able to resist human nature itself sufficiently to mistrust his own feelings when they are part of mass psychology. He must have courage commensurate with his competence.¹

SCIENTIFIC METHOD

According to serious practitioners, security analysis is a quasi-science, like medicine or economics. Its systematized knowledge is derived from the observance of decades of stock market data and the application of common sense. The field's basic tenets have thus been tested by the use of the scientific method, which calls for carrying out three basic steps to reach a conclusion. Exhibit 1.3 summarizes the scientific method alongside its application in the securities market.

Two supermarket stocks can serve as an example. Suppose the respective shares of Safeway and Kroger, two national chains, have the key financial characteristics shown in Exhibit 1.4. Safeway's stock is trading at 15 times earnings. Given the similarity, what should be the price/earnings (P/E) multiple of Kroger's stock? All things being equal, Kroger shares should have a 15 P/E multiple, meaning a \$30 price (i.e., 15 P/E times \$2 EPS equals \$30). Thus, if the Kroger shares are trading at \$25, the stock is a buy. In practice, analysts take the \$30 theoretical value as a starting

EXHIBIT 1.3 Scientific Method Applied to the Securities Market

Scientific Method	Securities Market Example
Step 1: Formulate a hypothesis.	Two similar stocks should have similar prices.
Step 2: Collect data, make observations, and test hypothesis.	Observe historical price performance of the two stocks. Determine if their prices converge over time.
Step 3: Conclude the validity or predictive ability of the hypothesis.	Sooner or later, two similar stocks will have similar prices. By following this conclusion, an investor looks for two similar stocks with <i>different</i> prices. He predicts that the cheaper of the two stocks will rise in price. He acts upon his prediction by buying the cheaper stock.

EXHIBIT 1.4 Similar Stock Hypothesis—Two Supermarket Stocks

	Safeway	Kroger
<i>Financial Data</i>		
Five-year compound annual growth in earnings per share	12%	12%
Expected annual growth rate in earnings per share	11%	11%
Debt-to-equity ratio	20%	20%
Earnings per share (EPS)	\$1	\$2
<i>Share Data</i>		
Price-to-EPS ratio (P/E)	15×	?
Share price	\$15	?

Note: The earnings growth rates and debt-to-equity ratios are identical. The P/E ratios should be similar, all things being equal.

point. They then study the future prospects of each company. Certain factors may justify the \$25 value, despite the apparent similarities.

The “similar stock/similar price” supposition is easy to describe and it makes sense. Unfortunately, proving this theory and other basic tenets of security analysis in a scientific manner is difficult. In a true science like physics, observations are repeated in a laboratory environment to verify their accuracy (e.g., a ball is dropped in a vacuum 100 times to confirm the pull of gravity). Security analysis theories, in contrast, are subject to the vagaries of the stock market, which has far too many uncontrolled variables to provide the appropriate conditions for a truly scientific test.

Even the “similar supermarket” example is hard to prove scientifically. Finding two publicly traded supermarket chains with identical financial results is impossible, and most chains have significant differences in market conditions, business operations, and managerial styles. Even with two firms that resemble each other in financial and business attributes, the scientific method is problematic. Much of a company’s value is represented by its future potential to generate earnings, as opposed to its present condition and past history. Determining the consensus view of a company’s future is accurately described as educated guesswork, rather than scientific deduction.

Despite the drawbacks of injecting scientific methods into the stock market, investors and finance professors keep trying. Certain of their theories are proven academically, while others have a commonsense appeal that heightens their acceptance. For example, most professionals consider the next two hypotheses to be valid:

- True Companies with low interest coverage ratios go bankrupt more frequently than those with high interest coverage ratios.
- True Companies with high P/E ratios have better growth records than those with low P/E ratios.

A combination of academic proofs, commonsense ideas, and intuitive beliefs supports these and other notions of security analysis. The systematic application of these concepts has evolved into a rational discipline, which one studies like other quasi-scientific fields such as medicine, economics, or sociology.

EXHIBIT 1.5 Common Business Valuation Approaches

1. *Intrinsic value.* The worth of a business equals the net present value of its future dividends.
 2. *Relative value.* Determine a company's value by comparing it to similar companies' values.
 3. *Acquisition value.* Calculate a company's share price by determining its worth to a third-party acquirer, such as another operating business.
 4. *Leveraged buyout value.* One prospective price for a business is its value in a leveraged buyout.
 5. *Technical analysis value.* A share price can be predicted by examining its historical trading pattern and applying it to the future.
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SECURITY ANALYSIS TECHNIQUES

As we have discussed earlier, emotions and trend followers influence the values of companies, but an underlying discipline governs share prices. Over time, this discipline, which is founded in security analysis, tends to correct stock market excesses. Thus, if a hot stock such as sensor maker MEMSIC goes public at a valuation of \$300 million despite the fact that the company has little revenue and no earnings, inevitably the stock price goes back to earth, as investors lose their fervor and evaluate the business in terms of its risk-adjusted potential. VISICU Software was a *good* company but a *speculative* stock in April 2006, when its initial public offering sold at \$16 per share and soon rose to \$24 per share. One year later, it was a good firm but a better equity value at \$8 per share, which was in line with the company's future prospects.

Frequently, the life cycle of pricing excesses begins with a security being bid up to an irrational price level by anticipation investors and momentum players, who are then battled by more scientifically inclined investors. The latter argue for a realistic valuation based on time-honored value anchors, which are derived from the five valuation approaches set forth in Exhibit 1.5.

BASIC VALUATION APPROACHES

Of the five principal approaches to business valuation, the first four lend themselves to the scientific method—the intrinsic value, relative value, acquisition value, and leveraged buyout approaches. All four approaches forecast stock prices on the basis of historical economic, capital market, industry, and corporate statistics, which are then used to establish predictive trends for firm operating results and share prices. The principal decision variables are earnings projections and comparable company values.

Under the *intrinsic value* method, future dividends are derived from earnings forecasts and then discounted to the present, thereby establishing a *present value* for the stock. If the stock is trading at a price lower than this calculation, it is a *buy*; if the market price is higher than the intrinsic value, the stock is a *sell*. For most businesspeople, the intrinsic value approach (i.e., discounted cash flow) is their

first introduction to security analysis since it is the approach emphasized by business schools and most valuation books. The intrinsic value concept makes economic sense and is theoretically sound, but in the real world its applicability is limited. No professional investor places much weight on projections extending past two or three years, and dividend discount rates are hard to pinpoint. Furthermore, even devoted advocates of this technique are hesitant to promote its use for analyses involving (1) growth companies that don't pay dividends, (2) established companies that are consistent money-losers, or (3) complex companies that are liquidation or restructuring candidates.

The *relative value* approach considers intrinsic values too difficult to determine, owing to the arguments over hard-to-make projections and controversial discount rates. Instead, various valuation parameters of a given publicly traded stock, such as its P/E, price/book, and price/sales ratios, are compared to the stocks of companies in the same industry. If the value ratio of the stock being evaluated is substantially lower than its peer group, and if there is no justifiable reason for the discrepancy, the relative value approach views the stock as a buy. Stock valuations are therefore made in a manner similar to many other asset appraisals. In real estate, for example, the value of a house is established by comparing the target house to nearby houses that have sold recently.

The relative value approach is attractive to analysts because it takes most of the guesswork out of relying on future projections and discount rates. Its weaknesses stem from three factors. First, few publicly traded companies have exact comparables, leaving a lot of room for subjectivity in the appraisal. Second, investors are in the market to make money in absolute terms, while the relative value method focuses on *relative* performance. Suppose an entire industry is the subject of speculative interest, and its share prices crash when expected operating results fail to materialize. The relative value picks fall 20 percent, but the industry's decline is 30 percent. The successful relative value investor is losing less money than other investors committed to the industry, but he's still losing money. Third, relative value places a heavy emphasis on contrasting the historical operating results of similar businesses, when future prospects are critical. Driving by looking in the rearview mirror is a perilous investment tactic.

The *acquisition value* approach suggests that a publicly traded stock should never trade at less than 70 to 75 percent of its worth to a sophisticated and well-financed third party. The analyst evaluates industry acquisition prices in comparison to the relevant company, and he tests it for feasibility as a leveraged buyout or liquidation candidate. If the stock trades at less than 70 percent of its acquisition value, it is probably a buy. By relying on data about so-called comparable companies, the acquisition value approach suffers from the same weaknesses as the relative value method, with the further proviso that comparable public M&A deals are rare in many situations.

The *leveraged buyout* (LBO) approach is a subset of the larger M&A methodologies. However, many businesses lack the attributes of an LBO candidate, often rendering this approach unworkable. Also, strategic buyers tend to pay more than LBO funds, so this approach is seen as a low-end acquisition value.

The fifth approach, *technical analysis*, has a wide following but it lacks the broad institutional acceptance of the first four approaches. Often referred to as Wall Street's version of "voodoo economics," technical analysis is concerned solely with

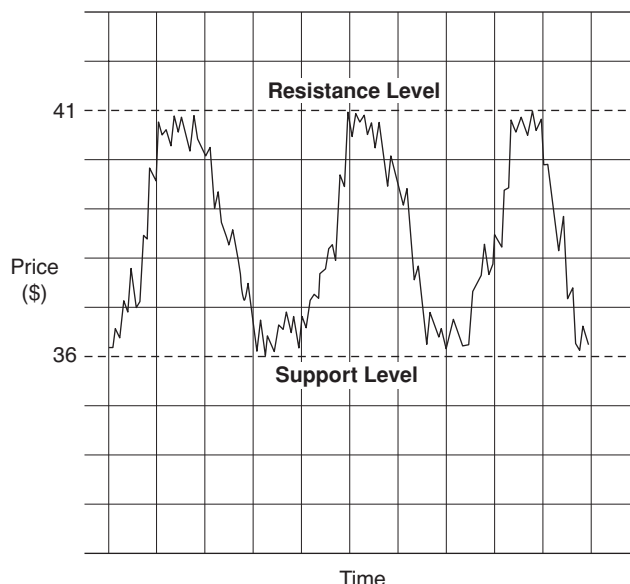


EXHIBIT 1.6 Technical Analysis—Consolidation Pattern

the price and volume trading patterns of a stock. This technique does not consider a company's operating history, its earning potential, or other microeconomic factors as relevant to the valuation process. Rather, the technician believes that trading patterns reflect all logical and emotional forces affecting a stock price. An analysis of these patterns, usually in conjunction with industry and market trading indicators, provides predictive trends that enable the technician to forecast stock prices.

Suppose a stock price fluctuates in a small range over a period of months, after it has made a big upward move. This behavior is called a *consolidation* pattern because the stock is consolidating its previous gain. Once the stock price breaks through the top end of this consolidation range, this is a buy signal because technical theory says it is poised for another run-up (see Exhibit 1.6). Numerous investors and academics have tested this and other technical theories and concluded that there is no evidence to support these claims. Nevertheless, Wall Street is one place where perception easily becomes reality. Since thousands of investors believe in technical analysis, market participants are sensitive to technical opinions in evaluating stock prices. Equity research reports usually include charts outlining the trading activity of the stock in question, and most professional money managers use such charts as one ingredient in buy/sell decisions.

OTHER VALUATION APPROACHES

Technical analysis represents a systemized body of knowledge and numerous books review its procedures. Nevertheless, it straddles the line between rational inquiry and educated speculation. Three other common stock-picking approaches that fall into

EXHIBIT 1.7 Stock-Picking Alternatives to Security Analysis and Technical Analysis

1. *Momentum investing.* Momentum investors attempt to follow buying or selling binges for individual stocks, regardless of the economic rationale behind the price move.
 2. *Paired trading.* Paired trading investors track the traditional pricing relationship between two securities that may or may not have business similarities. If the relationship changes for no discernable reason, a transaction is triggered.
 3. *Market anticipation.* Valuation parameters change precipitously among industries and companies. Anticipation investors try to predict dramatic changes before the market consensus.
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a similar category are *momentum investing*, *paired trading*, and *market anticipation* (see Exhibit 1.7).

All three approaches require a sophisticated knowledge of the market's inner workings and an experienced hand in equity trading. They are best employed by professional traders, who participate in the securities markets on a full-time basis and are thus in a position to react quickly to the sharp price movements endemic to these investment strategies.

Momentum Investing

Conventional security analysis is sometimes characterized as the art of buying low and selling high. Momentum investing, in contrast, is frequently referred to as *buying high and selling higher*, because its adherents look to buy shares that are rising quickly in price. Because momentum investors pay close attention to trading trends and give short shrift to the underlying company's sales or earnings, they represent a subset of the technical community. Having played a major role in many share price run-ups, they are a key source of market volatility, often through automated program trading. Such trading is typically initiated by a series of signals such as an upward 90-day moving price average, a large positive net cash flow into the stock, or a big jump in trading volume.

Paired Trading

With the huge advances in computing power, investors can now examine the historical pricing relationships among thousands of securities and track the consistency of these relationships on a real-time basis. Should a traditional pricing relationship distort for no discernible reason, the investor may buy or sell one of the affected securities in the expectation that the relationship will revert to the norm. In some cases, the securities might be similar, such as Ford and General Motors common stock, while in other cases the securities could be dissimilar.

Market Anticipation

The market anticipation approach acknowledges that most stocks are fairly priced by the many security analysts using the intrinsic value, relative value, and acquisition value methods. At some future point, however, the consensus view on any given

stock's earnings power or business risk changes, providing impetus to a higher (or lower) stock price. A typical pronouncement from a market anticipation analyst might be, "The Starbucks shares will increase in value as the market realizes the reduced volatility of the company's earning stream." Such conclusions carry little analytical weight and are most effective when repeated loudly and continually, thus echoing the "squeaky wheel gets the grease" tactic used by promoters in any business.

Despite the speculative nature of this approach, even the most rigorous disciples of security analysis are cognizant of the sometimes relentless drum beating of market anticipation investors, who are trying desperately to influence the consensus decision on a stock's value. Their influence has been strong in certain cases and has been observed in the rise and fall of numerous high-flyer stocks, the peak prices of which defy rational explanation for periods of time. Consider USEC, the uranium processor, which had a rocket-like rise from \$7 to \$25 in 2007, only to plummet to \$9 that same year. Alibaba.com, a Chinese Internet company, had a market value of \$26 billion in 2008, indicating valuation ratios (e.g., a 320 P/E) far higher than those of more established firms such as Yahoo! and eBay.

SUMMARY

Security analysis is a field of study that maintains that stocks can be valued in a methodical and sensible way. While acknowledging the stock market's periodic spasms of emotion and irrationality, it suggests that, sooner or later, the price of a security (or a business) approaches its economic value, as determined by a reasonable person with the requisite background in business operations, economics, finance, and accounting. This value cannot be pinpointed definitively because security analysis is not a science. Its results are dependent on its surrounding environment, which constantly changes with new information regarding developments of the business in question. As a quasi-science, security analysis has its limitations, yet it provides a reasonable framework for comparing and contrasting investment opportunities. As a result, security analysis is widely accepted in the institutional community and it is the primary means for justifying investment decisions.

Despite its lack of exactitude, security analysis provides careful investors with sufficient tools to recognize pricing anomalies in the market, and then to benefit from them by making the appropriate buy/sell decision. These evaluation tools provide the pricing anchors from which a rational decision can be reached, and they include the intrinsic value, relative value, and acquisition value methods. Technical analysis, a popular stock-picking technique based on trading patterns, is often used as a complement to these approaches.

Because so much of a typical share's value is based on hard-to-predict future results, the stock market is fertile ground for unscrupulous promoters who exaggerate the prospects of investments in which they have a financial interest. The rumor mongering and tub thumping of these players sometimes has the desired effect of inflating the price of a stock. The impact is transitory in nature and share prices generally return to a modest valuation range in which reasonable people achieve a consensus. Within this band, however, investors still face uncertainty so investment selection remains a challenging activity.