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Security Analysis and Business Valuation on Wall Street

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A Comprehensive Guide to Today's Valuation Methods

JEFFREY C. HOOKE

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Second Edition

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Preface

When one hears the term *security analyst*, the impression that comes to mind is a green-eye-shaded number cruncher, hunched over a desk piled high with financial reports and computer screens. Sifting through reams of data, the analyst looks endlessly for undervalued stocks trading on the public exchanges. In a narrow sense that stereotype holds true, but the security analysis profession has spawned a deliberate business valuation process that is copied by many disciplines, including private equity, mergers and acquisitions, corporate appraisals, and government regulators. As a result, the users of the principles of security analysis represent a broad cross section of individuals, such as:

- Equity analysts at mutual funds, pension funds, commercial banks, endowments, insurance companies, hedge funds, and sovereign wealth funds.
- Private equity professionals at buyout funds, venture capital funds, and hedge funds.
- Corporate financial executives.
- Investment bankers involved with mergers and acquisitions (M&A).
- Institutional loan officers working with M&A and buyout transactions.
- Business students at college and MBA schools.
- Investor relations professionals at corporations and public relations firms.
- Business appraisers, including those at appraisal firms, accounting firms, and consultancies.
- Lawyers who work with corporate clients on financial and tax matters.
- Independent public accounting firms that must review securities pricing estimates, business appraisals, and corporate valuation reports.
- Government regulators at the IRS, SEC, FDIC, PCAOB, Comptroller of the Currency, and Federal Reserve (and their international counterparts).
- Bank trust and private wealth advisers.
- Sophisticated individual investors.

Fortunes are made and lost on Wall Street based on advice from security analysts and business valuation experts. They evaluate the prospects of companies issuing common stock, borrowing money, or selling out in M&A transactions. For the serious investor, financial executive, or corporate manager, knowing how professionals price companies is important. After all, an ownership in a business is only worth what someone will pay for it. Since that someone is typically a full-time portfolio manager, private equity firm, hedge fund, or corporate acquirer, understanding the evaluative framework of such practitioners is a prerequisite for optimizing investment results.

The need for this book is more critical now than at any time since the depression-ridden 1930s. Over the past 10 years, we have witnessed two global stock market collapses and a financial crisis that required massive government intervention. A major contributing factor was the failure of investors, lenders, and regulators to adhere to the basic principles of security analysis. The tactics of in-house due diligence, contrary thinking, cross-checking, and recession-tested forecasting were sacrificed at the altars of expediency, cost-cutting, and short-term profit. Hopefully, one result of this trillion-dollar calamity is a renewed emphasis on the fundamentals that withstand the test of time and are outlined in this book.

WHAT IS SECURITY ANALYSIS?

Security analysis is the body of knowledge directed toward the valuation of a company (or its securities) in a rational, systematic way. It has a key principle: Over a long period, such as two to three years, the price of a common stock reflects the business prospects of the issuing firm and its economic environment. Over the short term, however, powerful trading and emotional forces impact share values, so the pricing of an equity (or the overlying business) is often a tug-of-war between the "long-term" and "short-term" groups. Full-time practitioners are well versed in the principles and methods of assessing equity interests in public and private companies. The results of their research are aimed at providing superior investment performance.

Equity Values Reflect Uncertainty

The value of a security (or a company) depends upon so many highly variable factors—and hence, is subject to such rapid changes—that pinpointing the validity of one analyst's reasoning *a priori* is difficult. Furthermore, predictions are confounded by, among other matters, unexpected changes in macroeconomic indicators such as interest rates, unforeseen developments in company-specific matters such as new competitors, and unusual shocks to an industry such as technology advances. All three factors can sharply alter corporate pricing. At other times, an equity value changes for reasons totally unrelated to the general economy, a company's industry, or its underlying business. For example, distinctive patterns in a public stock's trading activity prompt people to buy and sell, strictly on the notion that past trading trends are predictive of future values.

The market price of any business thus represents a jumble of contradictory expectations and hypotheses, influenced constantly by investors processing new data and evaluating changing circumstances. If this analytical process isn't difficult enough, the careful public investor, private equity fund, or corporate acquirer must also consider the human factors that affect financial asset values and react accordingly. From time to time, the emotional sentiments of investors envelop either an individual firm, a specific industry, or the broad market. A herd psychology takes over the pricing, defying rational explanation. Investors seeking an economic justification for the resultant values are best advised to step out of the way of the ensuing stampede.

Since disparate investment styles and unpredictable future events both exercise a major influence on equity prices, it is not surprising that many public and private equity managers cannot consistently select securities that outperform the general market indexes. Indeed, according to a large body of academic theory, beating the market on a regular basis is impossible. Public share prices reflect all available information, and private deals are widely shopped. As a result, no amount of study can achieve above-average investment results, and those managers with superior investment records are simply beneficiaries of the laws of chance. Sooner or later, the odds catch up with them, and their performance returns to norm. The growth of equity index funds and exchange-traded funds is evidence of the acceptance of this theory.

The Rationality Concept

As a field of study, security analysis rejects the idea that public equity investors are doomed to earn the market return over time and nothing more. Rather, it dictates that the selection of specific stocks for purchase or sale should be based upon a rational analysis of investment values. Applying this philosophy in a disciplined manner over the long term produces superior results. Advanced in a comprehensive way by Benjamin Graham and David Dodd in their seminal work, *Security Analysis*, this "rationality concept" has gained a wide following since the book's publication in 1934, and their step-by-step process of corporate valuation has been copied by other disciplines, such as private equity, mergers and acquisitions, and business appraisals.

RECENT TRENDS

When published in 1996, the first edition of *Security Analysis and Business Valuation on Wall Street* was warmly received. *Barron's*, the prestigious financial magazine, called it a "welcome successor to Graham & Dodd," and the CFA Institute, which awards the chartered financial analyst designation, adopted a portion of the book as required reading for the global CFA exam. At the suggestion of several business professors, the first edition was modified into a textbook for MBA students, a rare occurrence for a finance book written by a practitioner. And the book's real-world approach drew international interest: The Chinese translation, for example, had a print run nearing the English version. Nevertheless, since 1996, the landscape for evaluating investments has changed dramatically. These shifts include:

Expansion of the Internet. The expanded use of the Internet and the heightened availability of broadband connections means that new public information is transported instantaneously to market participants. With major investors tied electronically to stock exchanges, trading in the affected securities takes place milliseconds after the information is provided.

Increase in computing power, coupled with a decline in its cost. Immediately upon its arrival, the new information is sliced and diced in innumerable ways by sizable players with massive computing power. Employing sophisticated software that incorporates the principles of security analysis, the computers sift for pricing discrepancies in real time and execute trades accordingly, essentially replacing, for short periods anyway, the humans who programmed them. Once an investor's initial responses are processed, the computers help practitioners consider long-term decisions by processing vast amounts of numerical and related data.

Impact of two market crashes. The market crashes of 2000–2001 and 2008–2009 showed that investors face a more hazardous environment than was apparent at the time of the first edition. The failure of regulators, accounting firms, and credit rating agencies—the market's most important referees—to stem the abuses leading to booms and busts brings new concerns to the practitioner.

Extreme growth in derivatives. Derivative products, such as forwards, futures, options, and swaps, have grown extremely quickly, quintupling in volume over the past 10 years. This is due to improved technology in the structuring and trading of such instruments and the fact that the size of the derivatives market is not limited by the physical supply of the underlying securities. The notional value of U.S. corporate bond swaps, for example, is several times greater than all corporate bonds outstanding, and the notional value of equity derivatives roughly equals the total value of publicly traded U.S. common shares. Derivatives are used for both hedging and speculation.

Heightened use of independent experts. At the time of the first edition, the study of a publicly traded business was heavily dependent on information provided by management. Access to independent sources was limited due to the practical considerations involving the time and cost of developing such contacts. The Internet has reduced much of that dependence. Furthermore, multiple companies now offer investors the opportunity to consult with thousands of experts who offer insights on hundreds of companies and industries, usually at modest fees of a few hundred dollars per hour. Analysts thus gain alternate views regarding corporate tactics and industry trends.

Globalization of security analysis. As the world's major economies become increasingly interdependent, the proper analysis of equity securities requires an international bent that was unnecessary in the late 1990s. Trends in Western Europe, Japan, Australia, and other developed areas become important to the pricing of domestic equities. The popularity of emerging market stocks, a moribund asset class just eight years ago, provides additional challenges.

Boost in private equity and M&A transactions. The assets controlled by private equity have multiplied exponentially, and these funds have closed huge volumes of transactions worldwide. Their analytical approach is closely allied to security analysis. At the same time, public (and private) corporate M&A deals grew many times over, as firms sought growth through buying, rather than building.

Rise of hedge funds and short-selling. At the time of the first edition's publication, hedge funds were bit players in the financial markets, but not for long. The Internet-stock-driven collapse in equity prices from 2000 to 2001 convinced institutional investors that long-only funds had limitations and that market-neutral returns were desirable. With the supposed ability to profit in down markets by selling short and to make money in up markets by going long, hedge funds offered such possibilities, although the 2008 market crash showed these claims to be illusory. Now accounting for up to 50 percent of trading on the New York Stock Exchange, these funds put a spotlight on the practice of short-selling.

Valuation scandals at brokerage firms, accountants, and business appraisers. The great bull market of the late 1990s was fueled in part by equity analysts at the Wall Street brokerages, who issued overly optimistic reports on speculative Internet firms and shaky technology companies. The analysts compromised their research in order to curry favor with their supervisors and to win advisory business for their banking colleagues. In 2003, the brokerages paid $1.4 billion to settle charges that such research misled investors. In accordance with the legal settlement, they instituted a number of reforms. The sell-side analyst community was shaken by these events, and its credibility, which was never pristine, will require years of rehabilitation. At the same time, accountants and business appraisers were signing off on lowball option prices for executives at private firms, and thus distorting accounting results and income tax obligations.

Increased requirement for business valuation reports. These abuses prompted the federal government to institute regulations mandating that public companies (and soon-to-be-public companies) obtain third-party valuations (independent of their outside auditors) for executive options, M&A-related intangible assets, and other items. This requirement spilled over to many private firms using outside auditors.

Growth of index funds, exchange-traded funds, and shadow indexing. Index funds and exchange-traded funds (ETFs) offer low fees and, on behalf of investors, buy a preset basket of stocks corresponding to a broad market index, like the S&P 500, or a specific subindex, like the Russell Mid-Cap. Now representing 30 percent of mutual funds' assets, their growth shows investors' lack of faith in the ability of active managers to select stock portfolios with premium returns. At the same time, many of these managers have little confidence in their own skills; they buy stocks that mimic a given index, cutting their risk of underperformance, but also reducing their likelihood of overperformance. The practice is called *shadow indexing* or *hugging an index*. The dual trends of index funds and shadow indexing provide opportunities for analysts who do their homework, go against passive selection, and take the long view.

WHY STUDY SECURITY ANALYSIS AND BUSINESS VALUATION?

The stock market has a strong impact on economic policy, corporate decision making, retirement planning, and employment, and yet many investors, businesspeople, government officials, and students fail to understand business valuation, which is the conceptual underpinning for stock prices. Indeed, a sizable number consider the exchanges to be floating crap games. Speculative elements play a large role in the equity markets, but the discipline of security analysis warrants the sustained interest of many people.

On the international side, as more large developing countries, like China and India, increasingly rely on equity markets to allocate capital to local businesses, they must build a domestic capacity for business valuation.

OVERVIEW OF THE CONTENTS

To facilitate the reader's understanding of the subject material, *Security Analysis and Business Valuation on Wall Street* is divided into five parts.

Part One: The Investing Environment. Part One provides an overview of the environment in which common stocks are issued, researched, bought, and sold. In addition to examining why investors analyze companies in the first place, we look at the roles of the players, rules and regulations of the equity markets, activities surrounding an initial public offering, and sources of investment information. The prices of publicly traded common stocks are highly influential in setting values for private corporations, which are critical for nonpublic investments, tax and accounting calculations, and a host of other purposes.

Part Two: Performing the Analysis and Writing the Research Report. The investment merits of a particular business are evaluated through a methodical approach. Both the *history* and the *prospects* of the company are considered. The sequence of this study and the format of the evaluation report are discussed in Part Two.

Part Three: Valuation and the Investment Decision. At the conclusion of the report, the equity analyst must answer two questions: (1) Is this company fairly valued? and (2) Based on the previous answer, should I recommend investing in the business? M&A, private equity, and other users have somewhat different actions to consider from their reports. Part Three provides the necessary framework to deliver the answers.

Part Four: Special Cases. The model company for security analysis training is a U.S.-based manufacturer with a history of improving sales and earnings. Most firms don't fit this model. Part Four reviews specific industries, private equity tactics, and international markets.

Part Five: In Conclusion. Part Five looks at how investors are reacting to two major market declines in 10 years. The book closes with some observations and a few maxims.

WHAT'S NEW IN THE SECOND EDITION

The step-by-step methodical process needed to produce a reliable security analysis (or business valuation) has not changed since the first edition, and has remained fundamentally the same over the past 75 years. However, investing environments, valuation techniques, and industry definitions evolve over time, requiring continued modifications to the basic approach.

The second edition contains revisions to add insights and updates on such practical applications. Among them:

- *The investing environment.* Chapters 1 through 4 provide updates on the new environment, such as the dominance of commercial banks on Wall Street, the inability of security analysts to foresee pricing bubbles, the effect of the 2008 crash on the industry, the reliance of institutions on computerized models rather than human analysts, and the continual reluctance of regulators to show initiative in regulating. Chapter 4, "Other Sources of Information," has been revised to capture the use of the Internet and independent data services.

- *Starting the analysis, industry analysis, and company-specific analysis.* Chapters 5, 6, and 7 have been revised and updated. The principal themes remain the same, and the chapters are more concise.
- *Financial statement analysis.* Chapter 8 highlights, once again, the primary elements of this part of the company evaluation process and introduces an entirely new case study from 2008. The chapter reminds practitioners to assume a recession in their forecasts, a necessity ignored by competing books and avoided by many investors in their quest to close transactions. It also points out the use of software to conduct financial statement analysis.
- *The limitations of accounting data.* Chapter 9 includes a discussion on the recent accounting scandals that made the security analyst's job more difficult. The lack of enforcement and punishment ensure that such scandals will repeat themselves in the future.
- *Financial analysis and company classifications.* Chapter 10 explicitly defines pioneer, growth, mature, and declining companies and provides a methodology for placing a subject firm in its category. Despite the wide use of this terminology on Wall Street, many practitioners lack a firm foundation for making such classifications.
- *Valuation methodologies.* These chapters have been updated with new examples and cases. The application of each methodology (discounted cash flow, comparable public companies, comparable M&A transactions, and leveraged buyout) builds the foundation for making a decision, rather than just focusing on the process. Chapter 17 acknowledges changes in leveraged buyout dynamics. Chapter 18 adds commentary on the income tax ramifications of breaking up a conglomerate.
- *The investment recommendation.* Chapter 19 showcases how a proper evaluation report reaches a buy or sell decision by applying the Wall Street approaches explained in the book. The material is updated to 2009.
- *Special industries.* Most companies do not fit the textbook model of a profitable, domestic manufacturer. Chapters 21 to 25 provide new case studies in this regard.
- *International.* Commerce is increasingly global in nature, and the book reviews changes that affect the investment decision process.

In addition, the second edition has four new chapters:

"Intrinsic Value and Discounted Cash Flow" (Chapter 13). Included previously as a part of an earlier chapter, this topic now merits a separate treatment, with added emphasis on the practitioner including a recession scenario in any forecast.

"Discounted Cash Flow: Choosing the Right Discount Rate" (Chapter 14). The popular capital asset pricing model (CAPM) has flaws in its application. Chapter 14 reviews the flaws and provides a case study of using both the

CAPM and an alternate approach to figure an appropriate discount rate for a business. Rather than providing complex theories and formulas for what is essentially a straightforward task, the book explains it in only 10 pages.

"Private Equity." Chapter 20 shows how private equity firms and hedge funds consider investments in private corporations, and how their approach differs from an investor buying a security that is traded publicly on the New York Stock Exchange. As a former private equity investor, I provide the inside scoop.

"Asset Booms and Busts." Having witnessed two market crashes within the past decade, public stock investors, private equity firms, corporate acquirers, and government regulators should work within a framework that anticipates a downturn every 7 to 10 years. I discuss this topic in Chapter 28.

To download a valuation spreadsheet for DCF valuation and comparable companies, visit the companion web site at www.wiley.com/go/hooke. Instructors may also visit the Wiley Higher Ed site (www.wiley.com/college) for additional classroom tools.

For convenience, the pronoun *he* has been used throughout this book to refer nonspecifically to capital markets participants. The material herein will be equally useful to both men and women who evaluate security issuers.

This book does not promise to help you obtain superior stock market results, close better private equity deals, make optimal M&A transactions, or write the best corporate appraisal reports. No book can honestly claim such results. *Security Analysis and Business Valuation on Wall Street* provides a practical, well-rounded view of business valuation and investment decision processes. After completing this book, you are better prepared to make sound judgments and to confront the financial markets' numerous intrigues.

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Chevy Chase, Maryland
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Contents