

Introduction

In the constantly evolving world of finance, a solid technical foundation is an essential tool for success. Due to the fast-paced nature of this world, however, no one has been able to take the time to properly codify the lifeblood of the corporate financier's work—namely, valuation. We have responded to this need by writing the book that we wish had existed when we were trying to break into Wall Street. *Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions* is a highly accessible and authoritative book written by investment bankers that explains how to perform the valuation work at the core of the financial world. This book fills a noticeable gap in contemporary finance literature, which tends to focus on theory rather than practical application.

In the aftermath of the subprime mortgage crisis and ensuing credit crunch, the world of finance is returning to the fundamentals of valuation and critical due diligence for mergers & acquisitions (M&A), capital markets, and investment opportunities. This involves the use of more realistic assumptions governing approach to risk as well as a wide range of valuation drivers, such as expected financial performance, discount rates, multiples, leverage levels, and financing terms. While valuation has always involved a great deal of “art” in addition to time-tested “science,” the artistry is perpetually evolving in accordance with market developments and conditions. In this sense, our book is particularly topical—in addition to detailing the technical fundamentals behind valuation, we infuse practical judgment skills and perspective to help guide the science.

The genesis for this book stemmed from our personal experiences as students seeking to break into Wall Street. As we both independently went through the rigorous process of interviewing for associate and analyst positions at investment banks and other financial firms, we realized that our classroom experience was a step removed from how valuation and financial analysis is performed in real world situations. This was particularly evident during the technical portion of the interviews, which is often the differentiator for recruiters trying to select among dozens of qualified candidates.

Faced with this reality, we searched in vain for a practical how-to guide on the primary valuation methodologies used on Wall Street. At a loss, we resorted to compiling bits and pieces from various sources and ad hoc conversations with friends and contacts already working in investment banking. Needless to say, we didn't feel as prepared as we would have liked. While we were fortunate enough to secure job offers, the process left a deep impression on us. In fact, we continued to refine the comprehensive preparatory materials we had created as students, which served as the foundation for this book.

Once on Wall Street, we both went through mandatory training consisting of crash courses on finance and accounting, which sought to teach us the skill set

necessary to become effective investment bankers. Months into the job, however, even the limitations of this training were revealed. Actual client situations and deal complexities, combined with evolving market conditions, accounting guidelines, and technologies stretched our knowledge base and skills. In these situations, we were forced to consult with senior colleagues for guidance, but often the demands of the job left no one accessible in a timely manner. Given these realities, it is difficult to overstate how helpful a reliable handbook based on years of “best practices” and deal experience would have been.

Consequently, we believe this book will prove invaluable to those individuals seeking or beginning careers on Wall Street—from students at undergraduate universities and graduate schools to “career changers” looking to break into finance. For working professionals, this book is also designed to serve as an important reference material. Our experience has demonstrated that given the highly specialized nature of many finance jobs, there are noticeable gaps in skill sets that need to be addressed. Furthermore, many professionals seek to continuously brush up on their skills as well as broaden and refine their knowledge base. This book will also be highly beneficial for trainers and trainees at Wall Street firms, both within the context of formal training programs and informal on-the-job training.

Our editorial contributors from private equity firms and hedge funds have also identified the need for a practical valuation handbook for their investment professionals and key portfolio company executives. Many of these professionals come from a consulting or operational background and do not have a finance pedigree. Furthermore, the vast majority of buy-side investment firms do not have in-house training programs and rely heavily upon on-the-job training. This book will serve as a helpful reference guide for individuals joining, or seeking jobs at, these institutions.

This book also provides essential tools for professionals at corporations, including members of business development, finance, and treasury departments. These specialists are responsible for corporate finance, valuation, and transaction-related deliverables on a daily basis. They also work with investment bankers on various M&A transactions (including leveraged buyouts (LBOs) and related financings), as well as initial public offerings (IPOs), restructurings, and other capital markets transactions. Similarly, this book is intended to provide greater context for the legions of attorneys, consultants, and accountants focused on M&A, corporate finance, and other transaction advisory services.

Given the increasing globalization of the financial world, this book is designed to be sufficiently universal for use outside of North America. Our work on cross-border transactions—including in rapidly developing markets such as Asia, Latin America, Russia, and India—has revealed a tremendous appetite for skilled resources throughout the globe. Therefore, this book fulfills an important need as a valuable training material and reliable handbook for finance professionals in these markets.

STRUCTURE OF THE BOOK

This book focuses on the primary valuation methodologies currently used on Wall Street, namely comparable companies analysis, precedent transactions analysis, discounted cash flow analysis, and leveraged buyout analysis. These methodologies are

used to determine valuation for public and private companies within the context of M&A transactions, LBOs, IPOs, restructurings, and investment decisions. They also form the cornerstone for valuing companies on a standalone basis, including an assessment of whether a given public company is overvalued or undervalued. Using a step-by-step, how-to approach for each methodology, we build a chronological knowledge base and define key terms, financial concepts, and processes throughout the book. We also provide context for the various valuation methodologies through a comprehensive overview of the fundamentals of LBOs and an organized M&A sale process, including key participants, financing sources and terms, strategies, milestones, and legal and marketing documentation.

This body of work builds on our combined experience on a multitude of transactions, as well as input received from numerous investment bankers, investment professionals at private equity firms and hedge funds, attorneys, corporate executives, peer authors, and university professors. By drawing upon our own transaction and classroom experience, as well as that of a broad network of professional and professorial sources, we bridge the gap between academia and industry as it relates to the practical application of finance theory. The resulting product is accessible to a wide audience—including those with a limited finance background—as well as sufficiently detailed and comprehensive to serve as a primary reference tool and training guide for finance professionals.

This book is organized into three primary parts, as summarized below.

Part One: Valuation (Chapters 1–3)

Part One focuses on the three most commonly used methodologies that serve as the core of a comprehensive valuation toolset—comparable companies analysis (Chapter 1), precedent transactions analysis (Chapter 2), and discounted cash flow analysis (Chapter 3). Each of these chapters employs a user-friendly, how-to approach to performing the given valuation methodology while defining key terms, detailing various calculations, and explaining advanced financial concepts.

At the end of each chapter, we use our step-by-step approach to determine a valuation range for an illustrative target company, ValueCo Corporation (“ValueCo”), in accordance with the given methodology. The Base Case set of financials for ValueCo that forms the basis for our valuation work throughout the book is provided in Exhibits I.I to I.III. In addition, all of the valuation models and output pages used in this book are accessible in electronic format on our website, www.wiley.com/go/investmentbanking.

Chapter 1: Comparable Companies Analysis Chapter 1 provides an overview of comparable companies analysis (“comparable companies” or “trading comps”), one of the primary methodologies used for valuing a given focus company, division, business, or collection of assets (“target”). Comparable companies provides a market benchmark against which a banker can establish valuation for a private company or analyze the value of a public company at a given point in time. It has a broad range of applications, most notably for various M&A situations, IPOs, restructurings, and investment decisions.

The foundation for trading comps is built upon the premise that similar companies provide a highly relevant reference point for valuing a given target as they

share key business and financial characteristics, performance drivers, and risks. Therefore, valuation parameters can be established for the target by determining its relative positioning among peer companies. The core of this analysis involves selecting a universe of comparable companies for the target. These peer companies are benchmarked against one another and the target based on various financial statistics and ratios. Trading multiples—which utilize a measure of value in the numerator and an operating metric in the denominator—are then calculated for the universe. These multiples provide a basis for extrapolating a valuation range for the target.

Chapter 2: Precedent Transactions Analysis Chapter 2 focuses on precedent transactions analysis (“precedent transactions” or “transaction comps”) which, like comparable companies, employs a multiples-based approach to derive an implied valuation range for a target. Precedent transactions is premised on multiples paid for comparable companies in prior transactions. It has a broad range of applications, most notably to help determine a potential sale price range for a company, or part thereof, in an M&A or restructuring transaction.

The selection of an appropriate universe of comparable acquisitions is the foundation for performing precedent transactions. The best comparable acquisitions typically involve companies similar to the target on a fundamental level. As a general rule, the most recent transactions (i.e., those that have occurred within the previous two to three years) are the most relevant as they likely took place under similar market conditions to the contemplated transaction. Potential buyers and sellers look closely at the multiples that have been paid for comparable acquisitions. As a result, bankers and investment professionals are expected to know the transaction multiples for their sector focus areas.

Chapter 3: Discounted Cash Flow Analysis Chapter 3 discusses discounted cash flow analysis (“DCF analysis” or the “DCF”), a fundamental valuation methodology broadly used by investment bankers, corporate officers, academics, investors, and other finance professionals. The DCF has a wide range of applications, including valuation for various M&A situations, IPOs, restructurings, and investment decisions. It is premised on the principle that a target’s value can be derived from the present value of its projected *free cash flow* (FCF). A company’s projected FCF is derived from a variety of assumptions and judgments about its expected future financial performance, including sales growth rates, profit margins, capital expenditures, and net working capital requirements.

The valuation implied for a target by a DCF is also known as its *intrinsic value*, as opposed to its market value, which is the value ascribed by the market at a given point in time. Therefore, a DCF serves as an important alternative to market-based valuation techniques such as comparable companies and precedent transactions, which can be distorted by a number of factors, including market aberrations (e.g., the post-subprime credit crunch). As such, a DCF plays a valuable role as a check on the prevailing market valuation for a publicly traded company. A DCF is also critical when there are limited (or no) “pure play” peer companies or comparable acquisitions.

Part Two: Leveraged Buyouts (Chapters 4 & 5)

Part Two focuses on leveraged buyouts, which comprised a large part of the capital markets and M&A landscape in the mid-2000s. This was due to the proliferation of private investment vehicles (e.g., private equity firms and hedge funds) and their considerable pools of capital, as well as structured credit vehicles (e.g., collateralized debt obligations). We begin with a discussion in Chapter 4 of the fundamentals of LBOs, including an overview of key participants, characteristics of a strong LBO candidate, economics of an LBO, exit strategies, and key financing sources and terms. Once this framework is established, we apply our step-by-step how-to approach in Chapter 5 to construct a comprehensive LBO model and perform an LBO analysis for ValueCo. LBO analysis is a core tool used by bankers and private equity professionals alike to determine financing structure and valuation for leveraged buyouts.

Chapter 4: Leveraged Buyouts Chapter 4 provides an overview of the fundamentals of leveraged buyouts. An LBO is the acquisition of a target using debt to finance a large portion of the purchase price. The remaining portion of the purchase price is funded with an equity contribution by a financial sponsor (“sponsor”). In this chapter, we provide an overview of the economics of LBOs and how they are used to generate returns for sponsors. We also dedicate a significant portion of Chapter 4 to a discussion of LBO financing sources, particularly the various debt instruments and their terms and conditions.

LBOs are used by sponsors to acquire a broad range of businesses, including both public and private companies, as well as their divisions and subsidiaries. Generally speaking, companies with stable and predictable cash flows as well as substantial assets represent attractive LBO candidates. However, sponsors tend to be flexible investors provided the expected returns on the investment meet required thresholds. In an LBO, the disproportionately high level of debt incurred by the target is supported by its projected FCF and asset base, which enables the sponsor to contribute a small equity investment relative to the purchase price. This, in turn, enables the sponsor to realize an acceptable return on its equity investment upon exit, typically through a sale or IPO of the target.

Chapter 5: LBO Analysis Chapter 5 removes the mystery surrounding LBO analysis, the core analytical tool used to assess financing structure, investment returns, and valuation in leveraged buyout scenarios. These same techniques can also be used to assess refinancing opportunities and restructuring alternatives for corporate issuers. LBO analysis is a more complex methodology than those previously discussed as it requires specialized knowledge of financial modeling, leveraged debt capital markets, M&A, and accounting. At the center of LBO analysis is a financial model, which is constructed with the flexibility to analyze a given target under multiple financing structures and operating scenarios.

As with the methodologies discussed in Part One, LBO analysis is an essential component of a comprehensive valuation toolset. On the debt financing side, LBO analysis is used to help craft a viable financing structure for the target on the basis of its cash flow generation, debt repayment, credit statistics, and investment returns over the projection period. Sponsors work closely with financing providers (e.g.,

investment banks) to determine the preferred financing structure for a particular transaction. In an M&A advisory context, LBO analysis provides the basis for determining an implied valuation range for a given target in a potential LBO sale based on achieving acceptable returns.

Part Three: Mergers & Acquisitions (Chapter 6)

Part Three focuses on the key process points and stages for running an effective M&A sale process, the medium whereby companies are bought and sold in the marketplace. This discussion serves to provide greater context for the topics discussed earlier in the book as theoretical valuation methodologies are tested based on what a buyer will actually pay for a business or collection of assets. We also describe how valuation analysis is used to frame the seller's price expectations, set guidelines for the range of acceptable bids, evaluate offers received, and, ultimately, guide negotiations of the final purchase price.

Chapter 6: M&A Sale Process The sale of a company, division, business, or collection of assets is a major event for its owners (shareholders), management, employees, and other stakeholders. It is an intense, time-consuming process with high stakes, usually spanning several months. Consequently, the seller typically hires an investment bank ("sell-side advisor") and its team of trained professionals to ensure that key objectives are met—namely an optimal mix of value maximization, speed of execution, and certainty of completion, among other deal-specific considerations. Prospective buyers also often hire an investment bank ("buy-side advisor") to perform valuation work, interface with the seller, and conduct negotiations, among other critical tasks.

The sell-side advisor is responsible for identifying the seller's priorities from the onset and crafts a tailored sale process accordingly. From an analytical perspective, a sell-side assignment requires a comprehensive valuation of the target using those methodologies discussed in this book. Perhaps the most basic decision, however, relates to whether to run a broad or targeted auction, or pursue a negotiated sale. Generally, an auction requires more upfront organization, marketing, process points, and resources than a negotiated sale with a single party. Consequently, Chapter 6 focuses primarily on the auction process.

VALUECO SUMMARY FINANCIAL INFORMATION

Exhibits I.I through I.III display the historical and projected financial information for ValueCo. These financials—as well as the various valuation multiples, financing terms, and other financial statistics discussed throughout the book—are purely illustrative and designed to represent normalized economic and market conditions.

EXHIBIT I.III ValueCo Summary Historical Balance Sheet Data

(\$ in millions)

	Fiscal Year Ending December 31			As of	FYE
	2005A	2006A	2007A	9/30/2008A	2008E
Cash and Cash Equivalents	\$22.6	\$11.9	\$14.0	\$7.9	\$25.0
Accounts Receivable	123.2	141.1	152.6	161.3	165.0
Inventories	94.6	104.0	115.6	122.2	125.0
Prepaid and Other Current Assets	7.1	8.5	9.3	9.8	10.0
Total Current Assets	\$247.5	\$265.5	\$291.5	\$301.3	\$325.0
Property, Plant and Equipment, net	649.0	650.0	650.0	650.0	650.0
Goodwill and Intangible Assets	175.0	175.0	175.0	175.0	175.0
Other Assets	75.0	75.0	75.0	75.0	75.0
Total Assets	\$1,146.5	\$1,165.5	\$1,191.5	\$1,201.3	\$1,225.0
Accounts Payable	65.2	66.0	69.4	73.3	75.0
Accrued Liabilities	69.9	83.2	92.5	97.8	100.0
Other Current Liabilities	15.6	20.4	23.1	24.4	25.0
Total Current Liabilities	\$150.7	\$169.6	\$185.0	\$195.6	\$200.0
Total Debt	450.0	400.0	350.0	300.0	300.0
Other Long-Term Liabilities	25.0	25.0	25.0	25.0	25.0
Total Liabilities	\$625.7	\$594.6	\$560.0	\$520.6	\$525.0
Noncontrolling Interest	-	-	-	-	-
Shareholders' Equity	520.8	570.9	631.5	680.7	700.0
Total Liabilities and Equity	\$1,146.5	\$1,165.5	\$1,191.5	\$1,201.3	\$1,225.0