Leveraged Buyouts
Founded in 1807, John Wiley & Sons is the oldest independent publishing company in the United States. With offices in North America, Europe, Australia, and Asia, Wiley is globally committed to developing and marketing print and electronic products and services for our customers’ professional and personal knowledge and understanding.

The Wiley Finance series contains books written specifically for finance and investment professionals as well as sophisticated individual investors and their financial advisors. Book topics range from portfolio management to e-commerce, risk management, financial engineering, valuation, and financial instrument analysis, as well as much more.

Leveraged Buyouts

A Practical Guide to Investment Banking and Private Equity

PAUL PIGNATARO

WILEY
This book is dedicated to every investor in the pursuit of enhancing wealth. Those who have gained, and those who have lost—this continuous struggle has confounded the minds of many. This book should be one small tool to help further said endeavor; and if successful, the seed planted will contribute to a future of more informed investors and smarter markets.
# Contents

**Preface**

The Heinz Case Study  
How This Book Is Structured

**PART ONE**

**Leveraged Buyout Overview**

- **CHAPTER 1**
  - **Leveraged Buyout Theory**
    - Cash Availability, Interest, and Debt Pay-Down  
    - Operation Improvements  
    - Multiple Expansion  
    - What Makes Good Leveraged Buyout?  
    - Exit Opportunities  
    - Is Heinz a Leveraged Buyout?  

- **CHAPTER 2**
  - **What Is Value?**
    - Book Value  
    - Market Value  
    - Enterprise Value  
    - Multiples  
    - Three Core Methods of Valuation  

- **CHAPTER 3**
  - **Leveraged Buyout Analysis**
    - Purchase Price  
    - Sources and Uses of Funds  
    - IRR Analysis
PART TWO

Leveraged Buyout Full-Scale Model

CHAPTER 4

Assumptions

Purchase Price
Sources of Funds
Uses of Funds

CHAPTER 5

The Income Statement

Revenue
Cost of Goods Sold
Operating Expenses
Other Income
Depreciation and Amortization
Interest
Taxes
Nonrecurring and Extraordinary Items
Distributions
Shares
Heinz Income Statement
Last Twelve Months (LTM)
Income Statement—Projections

CHAPTER 6

The Cash Flow Statement

Cash Flow from Operating Activities
Cash Flow from Investing Activities
Cash Flow from Financing Activities
Financial Statement Flows Example
Heinz Cash Flow Statement
Heinz Last Twelve Months (LTM) Cash Flow
Cash Flow Statement Projections

CHAPTER 7

The Balance Sheet

Assets
Liabilities
Heinz Balance Sheet
## Contents

**CHAPTER 8**  
Balance Sheet Adjustments 199  
Goodwill 200  
Heinz Balance Sheet Adjustments 208

**CHAPTER 9**  
Depreciation Schedule 221  
Straight-Line Depreciation 222  
Accelerated Depreciation 222  
Deferred Taxes 227  
Projecting Depreciation 231  
Projecting Amortization 241  
Projecting Deferred Taxes 244

**CHAPTER 10**  
Working Capital 247  
Asset 247  
Liability 247  
Operating Working Capital 248  
Heinz’s Operating Working Capital 251  
Projecting Operating Working Capital 262  
Operating Working Capital and the Cash Flow Statement 271

**CHAPTER 11**  
Balance Sheet Projections 279  
Cash Flow Drives Balance Sheet versus Balance Sheet Drives Cash Flow 283  
Balancing an Unbalanced Balance Sheet 301

**CHAPTER 12**  
Debt Schedule and Circular References 309  
Debt Schedule Structure 309  
Modeling the Debt Schedule 310  
Circular References 329  
Automatic Debt Pay-Downs 337  
Basic Switches 339  
Finalizing the Model 339

**CHAPTER 13**  
Leveraged Buyout Returns 351  
Enter Value 351  
Returns to 3G Capital 355
### Contents

Multiple Expansion 361  
Debt Pay-Down 364  
Conclusion 364

**PART THREE**

**Advanced Leveraged Buyout Techniques** 365

**CHAPTER 14**

*Accelerated Depreciation* 367  
MACRS 367  
Accelerated versus Straight-Line Depreciation 372

**CHAPTER 15**

*Preferred Securities, Dividends, and Returns to Berkshire Hathaway* 377  
Preferred Securities 377  
Preferred Dividends 378  
Returns to Berkshire Hathaway 388

**CHAPTER 16**

*Debt Covenant Ratios, and Debt Fee Amortization* 395  
Coverage Ratios 395  
Leverage Ratios 397  
Debt Fee Capitalization and Amortization 399

**CHAPTER 17**

*Paid-in-Kind Securities* 409

**APPENDIXES**

*Appendix 1: Model Quick Steps* 417  
*Appendix 2: Financial Statement Flows* 419  
Income Statement to Cash Flow 419  
Cash Flow to Balance Sheet 420  
*Appendix 3: Excel Hot Keys* 421

About the Companion Website 423  
About the Author 425  
Index 427
In the 1970s and 1980s, the corporate takeover market began to surge. As a means to continue to enhance corporate wealth and leadership, growth through mergers or acquisitions flooded the corporate environment. Although such mergers and acquisitions had existed for decades, the mid-1970s led the multibillion-dollar hostile takeover race. This was followed by a surge in the 1980s of the leveraged buyout, a derivative of the takeover, culminating with the most noted leveraged buyout of its time, the $25 billion buyout of RJR Nabisco by Kohlberg Kravis Roberts in 1989.

A leveraged buyout, most broadly, is the acquisition of a company using a significant amount of debt to meet the acquisition cost. Arguably, the increase in leveraged buyouts in the 1980s was partly due to greater access to the high-yield debt markets (so-called junk bonds), pioneered by Michael Milken. Access to such aggressive types of lending allowed buyers to borrow more money to fund such large acquisitions. The more debt borrowed, the less equity needed out-of-pocket, leading to potentially higher returns. This concept of higher returns for less equity sparked interest among many funds and even individual investors, and extended worldwide. From buyouts of small $10 million businesses to the recent $25 billion potential buyout of Dell, small investors, funds, and enthusiasts alike have been fascinated by the mechanics, aggressiveness, and high-return potential of leveraged buyouts.

This book seeks to give any investor the fundamental tools to help analyze a leveraged buyout and determine if the potential returns are worth the investment. These fundamental tools are used by investment banks and private equity funds worldwide. We will evaluate the potential leveraged buyout of the H.J. Heinz Company, determining its current financial standing, projecting its future performance, and estimating the potential return on investment using the exact same methods used by the bulge bracket investment banks and top private equity firms. We will have you step into the role of an analyst on Wall Street to give you a firsthand perspective and understanding of how the modeling process works, and to give you the tools to create your own analyses. Whether you are an investor looking to make your own acquisitions or a fund, these analyses are invaluable in the process. This book is ideal for both those wanting to create their
own analyses and those wanting to enter the investment banking or private equity field. This is also a guide designed for investment banking or private equity professionals themselves if they need a thorough review or simply a leveraged buyout modeling refresher.

THE HEINZ CASE STUDY

PITTSBURGH & OMAHA, Neb. & NEW YORK--(BUSINESS WIRE)—H.J. Heinz Company (NYSE: HNZ) ("Heinz") today announced that it has entered into a definitive merger agreement to be acquired by an investment consortium comprised of Berkshire Hathaway and 3G Capital.

Under the terms of the agreement, which has been unanimously approved by Heinz's Board of Directors, Heinz shareholders will receive $72.50 in cash for each share of common stock they own, in a transaction valued at $28 billion, including the assumption of Heinz’s outstanding debt. The per share price represents a 20% premium to Heinz’s closing share price of $60.48 on February 13, 2013, a 19% premium to Heinz’s all-time high share price, a 23% premium to the 90-day average Heinz share price and a 30% premium to the one-year average share price.

(Heinz Press Release, February 14, 2013)

In this press release dated February 14, 2013, Heinz announces the possibility of being acquired by both Berkshire Hathaway and 3G Capital. We will analyze this potential buyout of Heinz throughout this book. Heinz manufactures thousands of food products on six continents, and markets these products in more than 200 countries worldwide. The company claims to have the number-one or number-two brand in 50 countries. Each year Heinz produces 650 million bottles of ketchup and approximately two single-serve packets of ketchup for every man, woman, and child on the planet. The company employs 32,000 people worldwide.

What is the viability of such a buyout? How are Berkshire Hathaway and 3G Capital finding value in such an investment? What are their potential returns? There is a technical analysis used by Wall Street analysts to help answer such questions. We will walk you through the complete buyout analysis as a Wall Street analyst would conduct that analysis.
It is important to note that the modeling methodology presented in this book is just one view. The analysis of Heinz and the results of that analysis do not directly reflect my belief, but rather, a possible conclusion for instructional purposes only based on limiting the most extreme of variables. There are other possibilities and paths that I have chosen not to include in this book. Many ideas presented here are debatable, and I welcome the debate. The point is to understand the methods and, further, the concepts behind the methods to equip you properly with the tools to drive your own analyses.

**HOW THIS BOOK IS STRUCTURED**

This book is divided into three parts:

1. Leveraged Buyout Overview
2. Leveraged Buyout Full-Scale Model
3. Advanced Leveraged Buyout Techniques

In Part One, we explain the concepts and mechanics of a leveraged buyout. Before building a complete model, it is important to step through, from a high level, the purposes of a leveraged buyout and the theory of how a leveraged buyout works. A high-level analysis helps us to understand the importance of key variables and is crucial to understanding how various assumption drivers affect potential returns.

In Part Two, we build a complete leveraged buyout model of Heinz. We analyze the company’s historical performance and step through techniques to make accurate projections of the business’s future performance. The goal of this part is not only to understand how to build a model of Heinz, but to extract the modeling techniques used by analysts and to apply those techniques to any investment.

Part Three also adds more modeling complexity, ideal for those who already have basic experience modeling leveraged buyouts. Adjusting scenarios, advanced securities such as paid-in-kind (PIK) securities and preferred dividends, and the capitalization and amortization of debt fees add more complexity and will further your understanding of using leveraged buyouts in practice.

The book is designed to have you build your own leveraged buyout model on Heinz step-by-step. The model template can be found on the companion website associated with this book and is titled “NYSF_Leveraged_Buyout_Model_Template.xls” To access the site, see the About the Companion Website section at the back of this book.