

FOREWORD BY WARREN E. BUFFETT

**BENJAMIN GRAHAM
DAVID L. DODD**

SECURITY ANALYSIS

◉ SIXTH EDITION ◉



UPDATED WITH NEW COMMENTARY BY
**SETH A. KLARMAN, JAMES GRANT,
BRUCE GREENWALD, AND OTHERS**

PRAISE FOR THE SIXTH EDITION OF *SECURITY ANALYSIS*

“The sixth edition of the iconic *Security Analysis* disproves the adage ‘tis best to leave well enough alone.’ An extraordinary team of commentators, led by Seth Klarman and James Grant, bridge the gap between the simpler financial world of the 1930s and the more complex investment arena of the new millennium. Readers benefit from the experience and wisdom of some of the financial world’s finest practitioners and best informed market observers. The new edition of *Security Analysis* belongs in the library of every serious student of finance.”

David F. Swensen
Chief Investment Officer
Yale University
author of *Pioneering Portfolio Management*
and *Unconventional Success*

“The best of the past made current by the best of the present. Tiger Woods updates Ben Hogan. It has to be good for your game.”

Jack Meyer
Managing Partner and CEO
Convexity Capital

“*Security Analysis*, a 1940 classic updated by some of the greatest financial minds of our generation, is more essential than ever as a learning tool and reference book for disciplined investors today.”

Jamie Dimon
Chairman and CEO
JPMorgan Chase

“While Coca-Cola found it couldn’t improve on a time-tested classic, Seth Klarman, Jim Grant, Bruce Greenwald, et al., prove that a great book can be made even better. Seth Klarman’s preface should be required reading for all investors, and collectively, the contributing editors’ updates make for a classic in their own right. The enduring lesson is that an understanding of human behavior is a critical part of the process of security analysis.”

Brian C. Rogers
Chairman
T. Rowe Price Group

“A classic has now been updated by some of the greatest and most thoughtful investors of our time. The book was a must read and has now been elevated to a new level.”

Daniel S. Och
Senior Managing Member
Och-Ziff Capital Management Group

“Readers will find the updated version of Graham and Dodd’s *Security Analysis* to be much improved from earlier editions. While the timeless advice from two of the greatest value investors continues to resonate, the essays that are contributed by some of the world’s top value investors add immeasurably to the read. These investors practice what they preach in their essays and combine to make this edition the best ever! I highly recommend this volume to all investors—old and young—who will benefit from the tried and true principles of the past and the updated applications to today’s turbulent markets!”

Morris Smith
Private Investor
Former Manager
Fidelity Magellan Fund

“No book empowers you with better tools for intelligent investing than *Security Analysis*. Seth Klarman and his fabulous team have produced a nonpareil edition of Ben Graham’s classic for the new millennium.”

Mason Hawkins
Chairman, Longleaf Partners
Southeastern Asset Management

“The ideas of Graham and Dodd have withstood all kinds of market conditions and 75 years of scrutiny—making them ever more relevant for modern-day investing. The essays by Klarman and other storied value investors lucidly illustrate that while the capital markets landscape may be vastly changed from years past, basic investor traits are not, and disciplined application of the principles of *Security Analysis* continues to provide an important edge in investing.”

André F. Perold
George Gund Professor of Finance and Banking
Harvard Business School

This page intentionally left blank

SECURITY ANALYSIS

SECURITY ANALYSIS PRIOR EDITIONS

Graham and Dodd: *Security Analysis*, First Edition (1934)

Graham and Dodd: *Security Analysis*, Second Edition (1940)

Graham and Dodd: *Security Analysis*, Third Edition (1951)

Graham, Dodd, Cottle, and Tatham: *Security Analysis*, Fourth Edition (1962)

Graham, Dodd, Cottle, Murray, Block, & Leibowitz: *Security Analysis*, Fifth Edition (1988)

SECURITY ANALYSIS

Principles and Technique

BENJAMIN GRAHAM

Investment Fund Manager;

Lecturer in Finance

Columbia University

AND

DAVID L. DODD

Associate Professor of Finance

Columbia University

Sixth Edition



New York Chicago San Francisco Lisbon London Madrid
Mexico City Milan New Delhi San Juan Seoul
Singapore Sydney Toronto

Copyright © 2009, 1988, 1962, 1951, 1940, 1934 by The McGraw-Hill Companies, Inc. All rights reserved. Manufactured in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

0-07-164293-5

The material in this eBook also appears in the print version of this title: 0-07-159253-9.

All trademarks are trademarks of their respective owners. Rather than put a trademark symbol after every occurrence of a trademarked name, we use names in an editorial fashion only, and to the benefit of the trademark owner, with no intention of infringement of the trademark. Where such designations appear in this book, they have been printed with initial caps.

McGraw-Hill eBooks are available at special quantity discounts to use as premiums and sales promotions, or for use in corporate training programs. For more information, please contact George Hoare, Special Sales, at george_hoare@mcgraw-hill.com or (212) 904-4069.

TERMS OF USE

This is a copyrighted work and The McGraw-Hill Companies, Inc. ("McGraw-Hill") and its licensors reserve all rights in and to the work. Use of this work is subject to these terms. Except as permitted under the Copyright Act of 1976 and the right to store and retrieve one copy of the work, you may not decompile, disassemble, reverse engineer, reproduce, modify, create derivative works based upon, transmit, distribute, disseminate, sell, publish or sublicense the work or any part of it without McGraw-Hill's prior consent. You may use the work for your own noncommercial and personal use; any other use of the work is strictly prohibited. Your right to use the work may be terminated if you fail to comply with these terms.

THE WORK IS PROVIDED "AS IS." MCGRAW-HILL AND ITS LICENSORS MAKE NO GUARANTEES OR WARRANTIES AS TO THE ACCURACY, ADEQUACY OR COMPLETENESS OF OR RESULTS TO BE OBTAINED FROM USING THE WORK, INCLUDING ANY INFORMATION THAT CAN BE ACCESSED THROUGH THE WORK VIA HYPERLINK OR OTHERWISE, AND EXPRESSLY DISCLAIM ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. McGraw-Hill and its licensors do not warrant or guarantee that the functions contained in the work will meet your requirements or that its operation will be uninterrupted or error free. Neither McGraw-Hill nor its licensors shall be liable to you or anyone else for any inaccuracy, error or omission, regardless of cause, in the work or for any damages resulting therefrom. McGraw-Hill has no responsibility for the content of any information accessed through the work. Under no circumstances shall McGraw-Hill and/or its licensors be liable for any indirect, incidental, special, punitive, consequential or similar damages that result from the use of or inability to use the work, even if any of them has been advised of the possibility of such damages. This limitation of liability shall apply to any claim or cause whatsoever whether such claim or cause arises in contract, tort or otherwise.

DOI: 10.1036/0071592539

To obtain material from the disk that
accompanies the printed version of
this eBook, please [click here](#).

BENJAMIN GRAHAM AND DAVID DODD forever changed the theory and practice of investing with the 1934 publication of *Security Analysis*. The nation, and indeed the rest of the world, was in the grips of the Great Depression, a period that brought unprecedented upheaval to the financial world. In 1940, the authors responded with a comprehensive revision. The second edition of *Security Analysis* is considered by many investors to be the definitive word from the most influential investment philosophers of our time.

Around the world, *Security Analysis* is still regarded as the fundamental text for the analysis of stocks and bonds. It is also considered to be the bible of value investing. To commemorate the 75th Anniversary of *Security Analysis*, McGraw-Hill is proud to publish this sixth edition.

Using the text of the 1940 edition, this new edition features lively and practical essays written by a stellar team that includes today's leading value investors, a prominent academic, and leading financial writers. The result is a contemporary bible of value investing.

The sixth edition, with a new design that pays homage to the original 1940 design, includes a CD that contains chapters from the original 1940 second edition. This book was printed and bound by R.R. Donnelley in Crawfordsville, Indiana.

*“Many shall be restored that now are fallen,
and many shall fall that now are in honor.”*

HORACE—ARS POETICA.

CONTENTS

Foreword • *by Warren E. Buffett* xi

Preface to the Sixth Edition | The Timeless Wisdom of Graham and Dodd • *by Seth A. Klarman* xiii

PREFACE TO THE SECOND EDITION xli

PREFACE TO THE FIRST EDITION xliii

Introduction to the Sixth Edition | Benjamin Graham and *Security Analysis: The Historical Backdrop* • *by James Grant* 1

INTRODUCTION TO THE SECOND EDITION 21

PART I

SURVEY AND APPROACH

Introduction to Part I | The Essential Lessons
by Roger Lowenstein 39

Graham and Dodd chapters:

1. THE SCOPE AND LIMITS OF SECURITY ANALYSIS. THE CONCEPT OF INTRINSIC VALUE 61
2. FUNDAMENTAL ELEMENTS IN THE PROBLEM OF ANALYSIS. QUANTITATIVE AND QUALITATIVE FACTORS 75
3. SOURCES OF INFORMATION 89
4. DISTINCTIONS BETWEEN INVESTMENT AND SPECULATION 100
5. CLASSIFICATION OF SECURITIES 112

PART IIFIXED-VALUE INVESTMENTS

Introduction to Part II | Unshackling Bonds • *by Howard S. Marks* 123

Graham and Dodd chapters:

- 6. THE SELECTION OF FIXED-VALUE INVESTMENTS 141
- 7. THE SELECTION OF FIXED-VALUE INVESTMENTS: SECOND AND THIRD PRINCIPLES 151
- 8. SPECIFIC STANDARDS FOR BOND INVESTMENT 169
- 9. SPECIFIC STANDARDS FOR BOND INVESTMENT (*CONTINUED*) *see accompanying CD*
- 10. SPECIFIC STANDARDS FOR BOND INVESTMENT (*CONTINUED*) 180
- 11. SPECIFIC STANDARDS FOR BOND INVESTMENT (*CONTINUED*) *see accompanying CD*
- 12. SPECIAL FACTORS IN THE ANALYSIS OF RAILROAD AND PUBLIC-UTILITY BONDS *see accompanying CD*
- 13. OTHER SPECIAL FACTORS IN BOND ANALYSIS *see accompanying CD*
- 14. THE THEORY OF PREFERRED STOCKS *see accompanying CD*
- 15. TECHNIQUE OF SELECTING PREFERRED STOCKS FOR INVESTMENT 190
- 16. INCOME BONDS AND GUARANTEED SECURITIES 202
- 17. GUARANTEED SECURITIES (*CONTINUED*) 215
- 18. PROTECTIVE COVENANTS AND REMEDIES OF SENIOR SECURITY HOLDERS 229
- 19. PROTECTIVE COVENANTS (*CONTINUED*) 242
- 20. PREFERRED-STOCK PROTECTIVE PROVISIONS. MAINTENANCE OF JUNIOR CAPITAL *see accompanying CD*
- 21. SUPERVISION OF INVESTMENT HOLDINGS 252

PART IIISENIOR SECURITIES WITH SPECULATIVE FEATURES

Introduction to Part III | “Blood and Judgement” • *by J. Ezra Merkin* 265

Graham and Dodd chapters:

- 22. PRIVILEGED ISSUES 289
- 23. TECHNICAL CHARACTERISTICS OF PRIVILEGED SENIOR SECURITIES 299
- 24. TECHNICAL ASPECTS OF CONVERTIBLE ISSUES 313
- 25. SENIOR SECURITIES WITH WARRANTS. PARTICIPATING ISSUES. SWITCHING AND HEDGING *see accompanying CD*
- 26. SENIOR SECURITIES OF QUESTIONABLE SAFETY 323

PART IV

THEORY OF COMMON-STOCK INVESTMENT.
THE DIVIDEND FACTOR

Introduction to Part IV | Go with the Flow • *by Bruce Berkowitz* 339

Graham and Dodd chapters:

- 27. THE THEORY OF COMMON-STOCK INVESTMENT 348
- 28. NEWER CANONS OF COMMON-STOCK INVESTMENT 366
- 29. THE DIVIDEND FACTOR IN COMMON-STOCK ANALYSIS 376
- 30. STOCK DIVIDENDS *see accompanying CD*

PART V

ANALYSIS OF THE INCOME ACCOUNT. THE EARNINGS
FACTOR IN COMMON-STOCK VALUATION

Introduction to Part V | The Quest for Rational Investing
by Glenn H. Greenberg 395

Graham and Dodd chapters:

- 31. ANALYSIS OF THE INCOME ACCOUNT 409
- 32. EXTRAORDINARY LOSSES AND OTHER SPECIAL ITEMS IN THE INCOME ACCOUNT 424
- 33. MISLEADING ARTIFICES IN THE INCOME ACCOUNT. EARNINGS OF SUBSIDIARIES 435
- 34. THE RELATION OF DEPRECIATION AND SIMILAR CHARGES TO EARNING POWER 453
- 35. PUBLIC-UTILITY DEPRECIATION POLICIES *see accompanying CD*
- 36. AMORTIZATION CHARGES FROM THE INVESTOR'S STANDPOINT *see accompanying CD*
- 37. SIGNIFICANCE OF THE EARNINGS RECORD 472
- 38. SPECIFIC REASONS FOR QUESTIONING OR REJECTING THE PAST RECORD 487
- 39. PRICE-EARNINGS RATIOS FOR COMMON STOCKS. ADJUSTMENTS FOR CHANGES IN CAPITALIZATION 496
- 40. CAPITALIZATION STRUCTURE 507
- 41. LOW-PRICED COMMON STOCKS. ANALYSIS OF THE SOURCE OF INCOME 520

PART VI

BALANCE-SHEET ANALYSIS. IMPLICATIONS OF ASSET VALUES

Introduction to Part VI | Deconstructing the Balance Sheet
by Bruce Greenwald 535

Graham and Dodd chapters:

- 42. BALANCE-SHEET ANALYSIS. SIGNIFICANCE OF BOOK VALUE 548
- 43. SIGNIFICANCE OF THE CURRENT-ASSET VALUE 559
- 44. IMPLICATIONS OF LIQUIDATING VALUE. STOCKHOLDER-MANAGEMENT
RELATIONSHIPS 575
- 45. BALANCE-SHEET ANALYSIS (*CONCLUDED*) 591

PART VII

ADDITIONAL ASPECTS OF SECURITY ANALYSIS. DISCREPANCIES BETWEEN PRICE AND VALUE

Introduction to Part VII | The Great Illusion of the Stock Market and
the Future of Value Investing • *by David Abrams* 617

Graham and Dodd chapters:

- 46. STOCK-OPTION WARRANTS *see accompanying CD*
- 47. COST OF FINANCING AND MANAGEMENT 633
- 48. SOME ASPECTS OF CORPORATE PYRAMIDING 644
- 49. COMPARATIVE ANALYSIS OF COMPANIES IN THE SAME FIELD 654
- 50. DISCREPANCIES BETWEEN PRICE AND VALUE 669
- 51. DISCREPANCIES BETWEEN PRICE AND VALUE (*CONTINUED*) 688
- 52. MARKET ANALYSIS AND SECURITY ANALYSIS 697

PART VIII

GLOBAL VALUE INVESTING

Globetrotting with Graham and Dodd • *by Thomas A. Russo* 711

APPENDIX *see accompanying CD*

- About This Edition 725
- Acknowledgments 727
- About the Contributors 729
- About the Authors 733
- Index 735

If it should become the standard policy to disburse the major portion of each year's earnings (as is done abroad), then the rate of dividend will vary with business conditions. This would apparently introduce an added factor of instability into stock values. But the objection to the present practice is that it *fails* to produce the stable dividend rate which is its avowed purpose and the justification for the sacrifice it imposes. Hence instead of a dependable dividend that mitigates the uncertainty of earnings we have a frequently arbitrary and unaccountable dividend policy that aggravates the earnings hazard. The sensible remedy would be to transfer to the stockholder the task of averaging out his own annual income return. Since the common-stock investor must form some fairly satisfactory opinion of average earning power, which transcends the annual fluctuations, he may as readily accustom himself to forming a similar idea of average *income*. As in fact the two ideas are substantially identical, dividend fluctuations of *this kind* would not make matters more difficult for the common-stock investor. In the end such fluctuations will work out more to his advantage than the present method of attempting, usually unsuccessfully, to stabilize the dividend by large additions to the surplus account.⁸ On the former basis, the stockholder's average income would probably be considerably larger.

A Paradox. Although we have concluded that the payment of a liberal portion of the earnings in dividends adds definitely to the attractiveness of a common stock, it must be recognized that this conclusion involves a curious paradox. Value is increased by taking away value. The more the stockholder subtracts in dividends from the capital and surplus fund the larger value he places upon what is left. It is like the famous legend of the Sibylline Books, except that here the price of the remainder is *increased* because part has been taken away.

approval of a rate greater than that recommended by the directors. Despite the latter proviso, the mere fact that the dividend policy is submitted to the stockholders for their specific approval or criticism carries an exceedingly valuable reminder to the management of its responsibilities, and to the owners of their rights, on this important question.

Although this procedure is not required by the Companies Act in all cases, it is generally followed in England. See Companies Act of 1929, Sections 6–10; Table A to the Companies Act of 1929, pars. 89–93; *Palmer's Company Law*, pp. 222–224, 13th ed., 1929.

⁸ For a comprehensive study of the effects of withholding earnings on the regularity of dividend payments, see O. J. Curry, *Utilization of Corporate Profits in Prosperity and Depression*, Ann Arbor, 1941.

This point is well illustrated by a comparison of Atchison and Union Pacific—two railroads of similar standing—over the ten-year period between January 1, 1915, and December 31, 1924.

Item	Per share of common	
	Union Pacific	Atchison
Earned, 10 years 1915–1924	\$142.00	\$137
Net adjustments in surplus account	<u>dr. 1.50*</u>	<u>cr. 13</u>
<i>Total available for stockholders</i>	\$140.50	\$150
Dividends paid	\$97.50	\$60
Increase in market price	<u>33.00</u>	<u>25</u>
<i>Total realizable by stockholders</i>	\$130.50	\$85
Increase in earnings, 1924 over 1914	9%†	109%†
Increase in book value, 1924 over 1914	25%	70%
Increase in dividend rate, 1924 over 1914	25%	none
Increase in market price, 1924 over 1914	28%	27%
Market price, Dec. 31, 1914	116	93
Market price, Dec. 31, 1924	149	118
Earnings, year ended June 30, 1914	\$13.10	\$7.40
Earnings, calendar year 1924	14.30	15.45

* Excluding about \$7 per share transferred from reserves to surplus.

† Calendar year 1924 compared with year ended June 30, 1914.

It is to be noted that because Atchison failed to increase its dividend the market price of the shares failed to reflect adequately the large increase both in earning power and in book value. The more liberal dividend policy of Union Pacific produced the opposite result.

This anomaly of the stock market is explained in good part by the underlying conflict of the two prevailing ideas regarding dividends which we have discussed in this chapter. In the following brief summary of the situation we endeavor to indicate the relation between the theoretical and the practical aspects of the dividend question.

Summary

1. In some cases the stockholders derive positive benefits from an ultraconservative dividend policy, *i.e.*, through much larger eventual earnings and dividends. In such instances the market's judgment proves to be wrong in penalizing the shares because of their small dividend. The price of these shares should be higher rather than lower on account of the fact that profits have been added to surplus instead of having been paid out in dividends.

2. Far more frequently, however, the stockholders derive much greater benefits from dividend payments than from additions to surplus. This happens because either: (*a*) the reinvested profits fail to add proportionately to the earning power or (*b*) they are not true "profits" at all but reserves that *had* to be retained merely to protect the business. In this majority of cases the market's disposition to emphasize the dividend and to ignore the additions to surplus turns out to be sound.

3. The confusion of thought arises from the fact that the stockholder votes in accordance with the first premise and invests on the basis of the second. If the stockholders asserted themselves intelligently, this paradox would tend to disappear. For in that case the withholding of a large percentage of the earnings would become an exceptional practice, subject to close scrutiny by the stockholders and presumably approved by them from a considered conviction that such retention would be beneficial to the owners of the shares. Such a ceremonious endorsement of a low dividend rate would probably and properly dispel the stock market's scepticism on this point and permit the price to reflect the earnings that are accumulating as well as those which were paid out.

The foregoing discussion may appear to conflict with the suggestion, advanced in the previous chapter, that long-term increases in common-stock values are often due to the reinvestment of undistributed profits. We must distinguish here between the two lines of argument. Taking our standard case of a company earning \$10 per share and paying dividends of \$7, we have pointed out that the repeated annual additions of \$3 per share to surplus should serve to increase the value of the stock over a period of years. This may very well be true, and at the same time the rate of increase in value may be substantially less than \$3 per annum compounded. If we take the reverse case, *viz.*, \$3 paid in dividends and \$7

added to surplus, the distinction is clearer. Undoubtedly the large addition to surplus will expand the value of the stock, but quite probably also this value will fail to increase at the annual rate of \$7 compounded. Hence the argument against reinvesting large proportions of the yearly earnings would remain perfectly valid. Our criticism is advanced against the latter type of policy, *e.g.*, the retention of 70% of the earnings, and not against the normal reinvestment of some 30% of the profits.

Dividend Policies since 1934. If the dividend practice of American corporations were to be judged solely by the record during 1934–1939, the criticism expressed in this chapter would have to be softened considerably. In these recent years there has been a definite tendency towards greater liberality in dividend payments, particularly by companies that do not have clearly defined opportunities for profitable expansion. Retention of earnings by rapidly growing enterprises, *e.g.*, airplane manufacturers, is hardly open to objection. Since the end of 1932, on the other hand, General Motors Corporation has disbursed about 80% of earnings to common-stock holders, with no wide deviation in any year through 1939. In 1939 the Treasury Department announced that it would use 70% as a rough or preliminary test to decide whether or not a company is subject to the penalty taxes for improper accumulation of surplus.

As far as stock prices are concerned, it can hardly be said that they have been unduly influenced by arbitrary dividend policies in these recent years. For not only have the policies themselves been far less arbitrary than in former times, but there has been a definite tendency in the stock market to subordinate the dividend factor to the reported and prospective earnings.

The Undistributed-profits Tax. The more liberal dividends of recent years have been due in part to the highly controversial tax on undistributed profits. This was imposed by Congress in 1936, on a graduated scale running from 7 to 27%. Following violent criticism, the tax was reduced to a vestigial 2½% in 1938 and repealed entirely the following year. Its main object was to compel companies to distribute their earnings, so that they might be subject to personal income taxes levied against the stockholders. A secondary objective appears to have been to restrict the accumulation of corporate surpluses, which were thought by some to be injurious, either because they withheld purchasing power from individuals or because they were conducive to unwise expansion. But the tax was

widely and violently condemned, chiefly on the ground that it prevented the creation of surplus or reserve funds essential to meet future losses or emergencies or expansion needs. It was said to lay a heavy penalty on corporate thrift and prudence and to bear with particular severity on small or new corporations which must rely largely on retained profits for their growth.

Law Objectionable but Criticized on Wrong Grounds. In our own opinion the law was a very bad one, but it has been criticized largely on the wrong grounds. Its objective, as first announced, was to tax corporations exactly as if they were partnerships and hence to equalize the taxation basis of corporate and unincorporated businesses. Much could be said in favor of this aim. But as the bill was finally passed it effectively superposed partnership taxation on top of corporate taxation, thus heavily discriminating against the corporate form and especially against small stockholders. Nor was it a practicable tax as far as wealthy holders were concerned, because the extremely high personal tax rates, combined with the corporation taxes (state and federal), created an over-all burden undoubtedly hostile to individual initiative. Fully as bad were the technical details of the tax law, which compelled distributions in excess of actual accounting profits, disregarded very real capital losses and allowed no flexibility in the treatment of inventory values.

Despite the almost universal opinion to the contrary, we do not believe that the undistributed profits tax really prevented the reinvestment of earnings, except to the extent that these were diminished by personal income taxes—as they would be in an unincorporated business. Corporations had available a number of methods for retaining or recovering these earnings, without subjecting them to the penalty tax. These devices included (1) declaration of taxable stock dividends (*e.g.*, in preferred stock); (2) payment of “optional” dividends, so contrived as to impel the stockholders to take stock rather than cash; (3) offering of additional stock on attractive terms at the time of payment of cash dividends. Critics of the tax have asserted that these methods are inconvenient or impracticable. Our own observation is that they were quite practicable and were resorted to by a fair number of corporations in 1936 and 1937,⁹ but that they were

⁹ See Rolbein, David L., “Noncash Dividends and Stock Rights as Methods for Avoidance of the Undistributed Profits Tax,” XII *The Journal of Business of the University of Chicago* 221–264,

avoided by the majority, either from unfamiliarity or from a desire to throw as harsh a light as possible upon the law.

Proper Dividend Policy. In view of the scepticism that we have expressed as to whether or not stockholders are really benefited by dividend-withholding policies, we may be thought sympathetic to the idea of preventing reinvestment of profits by imposing penalty taxes thereon. This is far from true. Dividend and reinvestment policies should be controlled not by law but by the intelligent decision of stockholders. Individual cases may well justify retention of earnings to an extent far greater than is ordinarily desirable. The practice should vary with the circumstances; the policy should be determined and proposed in the first instance by the management; but it should be subject to independent consideration and appraisal by stockholders in their own interest, as distinguished from that of the corporation as a separate entity or the management as a special group.

July, 1939. For more comprehensive surveys of this tax see Alfred G. Buehler, *The Undistributed Profits Tax*, New York, 1937 (an adverse appraisal), and Graham, Benjamin, "The Undistributed Profits Tax and the Investor," LXVI *Yale Law Journal* 1-18, November, 1936, elaborating the views expressed above.

PART V

ANALYSIS OF THE
INCOME ACCOUNT.
THE EARNINGS
FACTOR IN
COMMON-STOCK
VALUATION

This page intentionally left blank

THE QUEST FOR RATIONAL INVESTING

BY GLENN H. GREENBERG

T rue confession: I never read *Security Analysis* while at Columbia Business School. Never even took a securities analysis course. Instead, some invisible hand guided me into stock research and later money management, where I have labored for the past 33 years. It wasn't until perhaps the middle of my investment career that I decided it was time to pick up Graham and Dodd and see what all the buzz was about. The first 300 pages dealt with fixed income securities, which I have seldom owned and were of little interest to me. The equity section seemed dated: topics such as determining the earnings power of industrial cyclical and the appropriate depreciation of utility plant and equipment conjured up sepia-tone images of a bygone era. I was running my own investment business and in need of immediate investment ideas. Could this book help me find my next winner? Not likely, I decided. So imagine my reaction years later when an editor from McGraw-Hill called to ask me to write this introduction. After a long, long silence I asked if he could send me a copy.

Rereading Graham and Dodd felt a little bit like reading Polonius's charge to his son in *Hamlet* as he departs to pursue his studies abroad ("neither a borrower nor a lender be" and "to thine own self be true"). Yes, the advice was sound, but it seemed so obvious. In Part V, we are counseled against placing too much emphasis on near-term earnings and warned not to trust unscrupulous management. We are cautioned about

manipulation of financial statements and urged to appreciate the qualitative aspects of a business we invest in. A bright line is drawn for us separating speculation from investment. The appropriate level of debt in the capital structure, how to think about commodity-based investments, and the manic-depressive nature of markets are all addressed—well of course these ideas sound familiar because they have been interwoven through so many annual letters by Warren Buffett and cited by other great investors who credit Graham and Dodd for some portion of their investment success. As implied by the title of this part, Graham and Dodd do present detailed discussion and analysis of the income statement accounts, but it is the more general investment precepts that I and others treasure. This work is the more remarkable because it was written during the uniquely depressed circumstances of 1934, a nation of 25% unemployment with most businesses struggling to survive. Yet Graham and Dodd were able to codify the principles that have inspired great investors through 75 years of remarkable prosperity. Their insights are as applicable now as ever.

The purpose of Part V is to explore analysis of the income accounts in order to estimate the earnings power of the business and thereby determine if the stock is undervalued. There is no magic formula for this task: the future may resemble the past—or it may not! Virtually every page of this part is filled with useful analysis of company financials and great clarity of thought on a wide variety of industries. Financial analysis, not the CEO's letter, is key to assessing a business. There is a total absence of terms like "story," "concept," "paradigm," or "trend" to justify an investment. We all want to buy low and sell high, but first we must develop confidence in the sustainability of a business in order to arrive at a sound judgment about what constitutes "low" and "high."

Estimating average future earnings is not easy. In the 1930s there was tremendous volatility in earnings because of the operating leverage inher-

ent in manufacturing and resource businesses. The challenge in determining earnings power in today's more stable economy is different but no less daunting. There are global competitors and disruptive new technologies. Financial companies have developed extraordinary new products, which have been profitable to date but now face testing. Technology firms have to constantly reinvent themselves. Even the most stable businesses may surprise. I recall visiting Coca-Cola in late 1993. It was generally hailed as the finest business in the world because of its pricing power and boundless international growth opportunities. Valued at 18 times earnings, it was a bargain provided that earnings could grow over 15% annually for an extended period of time. It never occurred to anyone that this incredible franchise would have flattish earnings from 1996 through 2002.

How We Invest

At my firm, Chieftain Capital Management, we evaluate an investment opportunity based on the predictability of the business and a dispassionate calculation of its expected rate of return. We read all of a company's public filings, we analyze its industry and competitors (of which, ideally, there should not be many), we talk to its management team and industry experts, and we gather any other relevant data we can find, distilling it all into a historical analysis of the performance of the business. Obvious questions arise: Can margins continue to rise? Is the business becoming more capital intensive? Why are sales slowing? And so on. This analysis becomes the basis for further discussions with management and ultimately our projections of future results.

We and other investors today tend to focus on cash flow after capital expenditures (free cash flow), instead of earnings, to evaluate the investment merits of a business. One advantage of this approach is that it helps shortcut a good many games that management can play in reporting profits. Moreover, earnings are seldom synonymous with cash available

for shareholders, and it is the latter that should matter to investors. It has always struck me as curious that the first questions asked by a private investor are, how much money must I put up, how much cash will I get back, and how fast? Why should investors in publicly traded stocks ask different questions?

Finally, we calculate the rate of return implied by the free cash flows we expect the business to generate, in perpetuity, taking into account the investments the company needs to make to continue its growth. We generally will not buy a stock unless it is priced to give us at least a 15% rate of return. Obviously, there is much judgment involved in determining such a hurdle rate, and it must be refined to reflect the quality of the business and expected returns from alternative investment opportunities. In 1974 our investment hurdle would have been much higher—perhaps 25%—because there were so many undervalued stocks to choose from and interest rates were higher. By insisting on a very high rate of return, compared to the high-single-digit return we calculate to be offered by the broader market, we give ourselves significant margin for error. Our goal is to set the bar very high knowing that there will be few times when we find a great business selling at a price that will also give us a great rate of return. We seldom find a stock meeting these criteria, so when we do, we build a large position: never less than 5% of our assets and often as much as 25%. We sell a stock when the return in our model drops to 10%—even though our alternative may be cash earning less than 5%. At all times we are mindful that our approach is only as good as our assumptions about the future, and small changes in our assumptions, such as the growth rate of cash flows over the long term, can dramatically alter prospective returns.

A recent reminder of the importance of assumptions is a purchase we made in early 2007 of Ryanair, the world's largest airline as measured by passengers. The Irish company sports by far the lowest fares of anyone in

the short-haul business in the European markets it serves. In 10 years, it has grown its passengers tenfold and yet it has only a 7% share of the market. Last year its average fare was 44 euros, which compares with 66 euros for easyJet, 91 for Aer Lingus, and well over 100 euros for all the flag carriers. Even so, Ryanair has averaged 20% net margins over the past decade, versus low single digits for its rivals. We paid 16 times the current year's earnings estimates and felt this price was justified by Ryanair's huge cost advantages and growth prospects. Then the price of oil doubled again. The shares have declined 30% since our initial investment, and the profit outlook has dimmed.

Still, the business franchise is intact. Nothing has happened that makes us believe the long-term value of our investment has diminished. In fact, during this period of adversity, other low-cost carriers are expected to cease operations. Lenders are likely to be cautious in funding possible new entrants, and consumers may wish to trade down to take advantage of Ryanair's low fares. Over time, a company with this kind of cost advantage must take market share and earn attractive returns.

The process I have just described is our attempt to cover the bases outlined by the authors of *Security Analysis*. For Graham and Dodd, step 1 is careful quantitative analysis with particular attention to identifying real, not accounting, earnings. Accounting has always presented management with opportunities to misrepresent results. In 1934, companies ran nonrecurring gains through the profit-and-loss statement and stretched out depreciation schedules to make earnings look better than they were. Managers would charge certain losses directly to shareholders' equity, bypassing (and inflating) net income in the process. In addition to earnings, Graham and Dodd were also attuned to the importance of free cash flow, as in their discussion of the Eureka Pipe Line (Chapter 36 on accompanying CD). Just as Graham and Dodd illustratively juxtapose the perspectives of the private businessperson and the public investor, my

partners and I often ask ourselves the question: If this were a private business, how would we measure its value?

Accounting Challenges

Today, the accounting challenges for the investor are far more difficult. The Financial Accounting Standards Board (FASB) has issued any number of accounting mandates that muddy the waters. For example, while I certainly oppose excessive granting of stock options to management and employees, there are numerous difficulties in accounting for them as a current expense as prescribed by the recent FASB statement 123R. First off, stock options are a noncash obligation and may never cost the shareholder a penny—but under 123R even a deeply out-of-the-money option will still result in an expense years after being awarded to an employee. Second, stock options are already reflected in the diluted share base used to calculate the earnings-per-share (EPS) figures most investors focus on; by further burdening net income with an expense for options, diluted EPS under today's accounting clearly reflects double counting. Finally, valuing options requires numerous assumptions and thus opens the door to manipulation. By the way, the previous approach to accounting for stock options was even odder: options granted with a strike price equal to the market price had no expense impact, but those granted below market would, in some cases, result in an expense every year thereafter that the underlying stock rose. There is equal confusion to be found in the FASB approach to accounting for derivatives, hedging, pensions, leases, and recognition of profits for carried interests, to name a few. Now companies can even record a profit if their debt gets downgraded. Sometimes accounting rules seem designed to carry us *very* far from economic reality, and some managers are quite amenable to taking investors on such a journey.

Having analyzed the historical record, the second and far greater challenge is to determine “the utility of this past record as an indication of

future earnings.” Graham and Dodd call it a “qualitative survey of the enterprise.” Is the future of the business adequately predictable so as to permit a long-term investment? Is the business growing so rapidly as to attract numerous competitors? Is it subject to being undermined by a new technology or changing consumer taste? Will it be squashed by imports or Wal-Mart or by a business model enabled by the Internet? In other words, how predictable are future cash flows? And how do we feel about the corporate culture and management leadership? Can they be relied on to be shrewd, rational, and motivated to maximize the value of our investment? Or do they have a different agenda? Will management *itself* follow the Graham and Dodd principles in investing the shareholders’ money?

Whose Company Is It?

This last point is particularly important. Often managers get confused and believe that it is *their* company, which they can run to satisfy their personal needs—and few such managers would acknowledge that this applies to them. We spend a lot of time getting to know the stewards of the companies in which we invest to ascertain their personal priorities. Small observations can sometimes provide a clue. A CEO who won’t answer tough questions directly is a warning sign. A deeply tanned CEO wearing a lot of gold jewelry is not likely to be someone we feel we can trust.

Worse yet is a CEO who undervalues his stock by offering it in exchange for shares of a company with less attractive business prospects than his own. This happened in 2004 when Comcast CEO Brian Roberts made a surprise offer to purchase Disney in an all-stock deal that would have been hugely dilutive to free cash flow and would have radically changed the nature of the company. Clearly the motivation of the management was to build an empire by owning an American icon rather

than to build the value of its own business, on a per share basis, for the investors. We sold a large portion of our Comcast shares upon learning of the offer. Worried about dilution of the value of the company, others did the same, driving down the stock price by over 20%. Roberts subsequently withdrew the Disney offer since he no longer had a sufficiently valuable stock with which to make the acquisition.

Similarly, it can be disheartening to discuss the concept of share repurchases with some managers. If we ask whether the cash return on a capital project is as good as the return from buying back stock, they generally look at us as though we're speaking in a foreign tongue.

This qualitative assessment allows the discriminating investor to single out truly *good* businesses. Few investors active today lived as I did through the bear market of 1973 to 1974 or the crash of 1987, when the market lost 30% of its value in only a few days. As I watched the disasters around me, I made a promise to myself to avoid any stock that I would not feel comfortable holding through another 1987-like crash. The reason is simple: in the aftermath of a collapse, much wealth has evaporated and confidence is circling the drain. Wild rumors are flying—and many may just be true. Without confidence in the staying power of a business, the overwhelming tendency is simply to follow the crowd and sell. Many who do sell are so shell-shocked that they are afraid to buy again until well after a recovery has occurred. Trading on emotions is nearly always the wrong thing to do, especially for those investors who have carefully done their homework. Certainly a good business can hit a rough patch, but it is not unusual for such a business to regain its footing. Sometimes huge stock declines occur for no apparent reason.

I recall that shortly after making a new investment in LabCorp in August 2002, the company reported quarterly earnings that were 6% shy of Street estimates. The stock, for which we had paid \$34, or 12 times the next year's free cash flow, fell as low as \$18 in October 2002. Of course,

of error or disappointment. It runs considerably less risk of confusion between “confidence in the future” and mere speculative enthusiasm.

Large Profits Frequently Transitory. More frequently we have the opposite type of situation from that just discussed. Here the analyst finds reason to question the indefinite continuance of past prosperity.

Examples: Consider a company like J. W. Watson (“Stabilator”) Company, engaged chiefly in the manufacture of a single type of automotive accessory. The success of such a “gadget” is normally short-lived; competition and changes in the art are an ever present threat to the stability of earning power. Hence in such a case the student could have pointed out that the market price, bearing the usual ratio to current and average earnings, reflected a quite unwarranted confidence in the permanence of profits that by their nature were likely to be transitory. Some of the pertinent data relative to this judgment are given in the table below, with respect to this company.⁸

THE J. W. WATSON COMPANY

Year	Net for common	Per share	Price range for common	Dividend
1932	\$214,026(d)	\$1.07(d)	$\frac{3}{8}-\frac{1}{8}$	None
1931	240,149(d)	1.20(d)	$2-\frac{1}{8}$	None
1930	264,269(d)	1.32(d)	6-1	None
1929	323,137(d)	1.61(d)	$14\frac{7}{8}-1\frac{5}{8}$	None
1928	348,930(d)	1.74(d)	$20-5\frac{1}{4}$	50 cents
1927	503,725	2.16	$25\frac{3}{4}-18\frac{7}{8}$	50 cents
1926	577,450*	2.88*	(Issue not quoted prior to 1927)	
1925	502,593*	2.51*		
1924	29,285*	0.15*		
1923	173,907*	0.86*		
1922	142,701*	0.71*		

* Earnings are for predecessor companies, applied to 1932 capitalization.

⁸ The common stock of the company was originally offered in September 1927 at \$24.50 per share, a price 17.3 times the average earnings of the predecessor companies during the preceding five years. This relatively high price was accounted for in part by the apparently

A similar consideration would apply to the exhibit of Coty, Inc., in 1928. Here was a company with an excellent earnings record, but the earnings were derived from the popularity of a trade-marked line of cosmetics. This was a field in which the variable tastes of femininity could readily destroy profits as well as build them up. The inference that rapidly rising profits in previous years meant much larger profits in the future was thus especially fallacious in this case, because *by the nature of the business* a peak of popularity was likely to be reached at some not distant point, after which a substantial falling off would be, if not inevitable, at least highly probable. Some of the data appearing on the Coty exhibit are as follows:

Year	Net income	Earned per share (adjusted)
1923	\$1,070,000	\$0.86
1924	2,046,000	1.66
1925	2,505,000	2.02
1926	2,943,000	2.38
1927	3,341,000	2.70
1928	4,047,000	3.09
1929	4,058,000	2.73

At the high price of 82 in 1929, Coty, Inc., was selling in the market for about \$120,000,000, or thirty times its *maximum* earnings. The actual investment in the business (capital and surplus) amounted to about \$14,000,000.

Subsequent earnings were as shown in the table following.

COTY, INC.

Year	Net income	Earned per share
1930	\$1,318,000	\$0.86
1931	991,000	0.65
1932	521,000	0.34 (low price in 1932–1½)

favorable “trend” of earnings, in part by the high recent and current earnings and in part by the reckless standards of appraisal beginning to prevail at the time.

See pp. 438–440 of the 1934 edition of this work for a companion case—The Gabriel Company.

A third variety of this kind of reasoning could be applied to the brewery-stock flotations in 1933. These issues showed substantial current or prospective earnings based upon capacity operations and the indicated profit per barrel. Without claiming the gift of second sight, an analyst could confidently predict that the flood of capital being poured into this new industry would ultimately result in overcapacity and keen competition.

Hence a continued large return on the actual cash investment was scarcely probable; it was likely, moreover, that many of the individual companies would prove financial failures, and most of the others would be unable to earn enough to justify the optimistic price quotations engendered by their initial success.⁹

⁹ See Appendix Note 55, p. 792 on accompanying CD, for brief comments on the subsequent performance of the brewery issues of 1933.

Chapter 38

SPECIFIC REASONS FOR QUESTIONING OR REJECTING THE PAST RECORD

IN ANALYZING AN INDIVIDUAL company, each of the governing elements in the operating results must be scrutinized for signs of possible unfavorable changes in the future. This procedure may be illustrated by various examples drawn from the mining field. The four governing elements in such situations would be: (1) life of the mine, (2) annual output, (3) production costs and (4) selling price. The significance of the first factor has already been discussed in connection with charges against earnings for depletion. Both the output and the costs may be affected adversely if the ore to be mined in the future differs from that previously mined in location, character or grade.¹

Rate of Output and Operating Costs. *Examples: Calumet and Hecla Consolidated Copper Company.* The reports of this copper producer for 1936 and previous years illustrate various questions with respect to ore reserves. The income account for 1936 may be summarized as follows:

Copper produced	78,500,000 lb.
Copper sold	95,200,000 lb. @ 9.80 cents
Profit before depreciation and depletion	\$3,855,000
Depreciation	1,276,000
Depletion	1,726,000
Earned per share after depreciation but before depletion on 2,006,000 shares	\$1.29

¹ When ore reserves are stated only as so many tons, or so many years of life, these data may be misleading in the absence of assurance regarding the *quality* of ore remaining. *Example:* The depletion charges of Alaska Juneau Gold Mining Company suggested a remaining life of some 85 years from 1934. The registration statement however, claimed only some 25 years of life from 1934. The implication (confirmed upon inquiry) is that the longer "life" included much low-grade ore of noncommercial character.

Early in 1937 the stock sold at \$20 per share, a valuation of \$40,000,000 for the company, or \$30,000,000 for the mining properties plus \$10,000,000 for the working capital.

A detailed analysis of the make-up of the 1936 earnings would have shown them to be derived from four separate sources, approximately as follows:

Source of copper	Number of pounds, millions	Profit before depreciation and depletion	
		Cents per pound (approximate)	Total (approximate)
Copper previously produced	17.3	4.5	\$ 775,000
Conglomerate mine	36.3	3.6	1,305,000
Ahmeek mine	23.0	3.3	760,000
Reclamation plants	19.2	5.3	1,015,000
	95.8	4.0	\$3,855,000

Of these four sources of profit, all but the smallest were definitely limited in life. The sale of copper produced in prior years was obviously non-recurring. The mainstay of the company’s production for 70 years—the Conglomerate Branch—was facing exhaustion “in the course of 12 or 14 months.” The reclamation-plant copper, recovered by reworking old tailings and providing the cheapest metal, was limited to a life of 5 to 7 years. There remained as the only more permanent source of future output the Ahmeek Mine, which was the highest cost operation and which had therefore been shut down from April 1932 through 1935. (There were also certain other high-cost properties that were still shut down in 1936.)

Analysis would indicate, therefore, that probably not more than a total of some 7 to 8 millions in profit could be expected in the future from the Conglomerate and the reclamation operations. Hence, aside from new developments of a speculative character, the greater part of the 40 millions of valuation for the company would have to be supported by earnings from higher cost properties *which had contributed only a minor part of the 1936 results.*²

² In the 1934 edition of this book we discussed a similar situation existing in this company in 1927, at which time the largest part of the profits were being contributed by the reclamation-plant operations, which were known to have a limited life.

Freeport Sulphur Company. The exhibit of the then Freeport Texas Company in 1933 supplies the same type of problem for the analyst, and it also raises the question of the propriety of the use, under such circumstances, of the past earnings record to support the sale of new securities. An issue of \$2,500,000 of 6% cumulative convertible preferred stock was sold at \$100 per share in January 1933 in order to raise funds to equip a new sulphur property leased from certain other companies.

The offering circular stated among other things:

1. That the sulphur reserves had an estimated life of at least 25 years based upon the average annual sales for 1928–1932;
2. That the earnings for the period 1928–1932 averaged \$2,952,500, or 19.6 times the preferred-dividend requirement.

The implication of these statements would be that, assuming no change in the price received for sulphur, the company could confidently be expected to earn over the next 25 years approximately the amounts earned in the past.

The facts in the case, however, did not warrant any such deduction. The company's past earnings were derived from the operation of two properties, at Bryanmound and at Hoskins Mound, respectively. The Bryanmound area was owned by the company and had contributed the bulk of the profits. But by 1933 its life was "definitely limited" (in the words of the listing application); *in fact the reserves were not likely to last more than about three years*. The Hoskins Mound was leased from the Texas Company. After paying \$1.06 per ton fixed royalty, no less than 70% of the remaining profits were payable to Texas Company as rental.³ One half of Freeport's sales were required to be made from sulphur produced at Hoskins. The new property at Grande Eaille, La., now to be developed, would require royalty payments amounting to some 40% of the net earnings.

When these facts are studied, it will be seen that the earnings of Freeport Texas for 1928–1932 had no direct bearing on the results to be expected from future operations. The sulphur reserves, stated to be good for 25 years, represented mineral located in an entirely different place and

³ The rate had been 50% until Freeport recouped its capital expenditures on the property. Illustrative of the general theme of this chapter is the break in Freeport's price from $109\frac{1}{4}$ to $65\frac{5}{8}$ in January–February 1928 coincident with the change in the royalty rate. The student may examine a similar development in the case of Texas Gulf Sulphur, occurring in 1934–1935.

to be extracted under entirely different conditions from those obtaining in the past. A large profit-sharing royalty would be payable on the sulphur produced from the new project, whereas the old Bryanmound was owned outright by Freeport and hence its profits accrued 100% to the company.

In addition to this known element of higher cost, great stress must be laid also upon the fact that the major future profits of Freeport were now expected from a *new project*. The Grande Ecaille property was not yet equipped and in operation, and hence it was subject to the many hazards that attach to enterprises in the development stage. The cost of production at the new mine might conceivably be much higher, or much lower, than at Bryanmound. From the standpoint of security analysis the important point is that, where two quite different properties are involved, you have two virtually separate enterprises. Hence the 1928–1932 record of Freeport Texas was hardly more relevant to its future history than were the figures of some entirely different sulphur company, e.g., Texas Gulf Sulphur.

Returning once more to the business man's viewpoint on security values, the Freeport Texas exhibit suggests the following interesting line of reasoning. In June 1933 this enterprise was selling in the market for about \$32,000,000 (25,000 shares of preferred at 125 and 730,000 shares of common at 40). The major portion of its future profits were expected to be derived from an investment of \$3,000,000 to equip a new property leased from three large oil companies. Presumably these oil companies drove as good a bargain for themselves as possible in the terms of the lease. The market was in effect placing a valuation of some \$20,000,000, or more, upon a new enterprise in which only \$3,000,000 was to be invested. It was possible, of course, that this enterprise would prove to be worth much more than six times the money put into it. But from the standpoint of ordinary business procedure the payment of such an enormous premium for anticipated future results would appear imprudent in the extreme.⁴

Evidently the stock market—like the heart, in the French proverb—has reasons all its own. In the writers' view, where these reasons depart

⁴ Since the Freeport Texas preferred issue was relatively small, representing less than one-tenth of the total market value of the company, this analysis would not call into question the safety of the senior issue, but reflects only upon the soundness of the valuation accorded the common stock—judged by investment standards. After 1933 the company did in fact encounter serious problems of production, which held down the earnings and depressed the market price, but these problems were later solved. Yet the maximum earnings attained by 1940—\$3.30 per share in 1937—could scarcely justify the price of 49 paid by speculators in 1933.

violently from sound sense and business experience, common-stock buyers must inevitably lose money in the end, even though large speculative gains may temporarily accrue, and even though certain fortunate purchases may turn out to be permanently profitable.

The Future Price of the Product. The three preceding examples related to the future continuance of the rate of output and the operating costs upon which the past record of earnings was predicted. We must also consider such indications as may be available in regard to the *future selling price* of the product. Here we must ordinarily enter into the field of surmise or of prophecy. The analyst can truthfully say very little about future prices, except that they fall outside the realm of sound prediction. Now and then a more illuminating statement may be justified by the facts. Adhering to the mining field for our examples, we may mention the enormous profits made by zinc producers during the Great War, because of the high price of spelter. Butte and Superior Mining Company earned no less than \$64 per share before depreciation and depletion in the two years 1915–1916, as the result of obtaining about 13 cents per pound for its output of zinc, against a prewar average of about 5¼ cents. Obviously the future earning power of this company was almost certain to shrink far below the war-time figures, nor could these properly be taken together with the results of any other years in order to arrive at the average or supposedly “normal” earnings.⁵

Change in Status of Low-cost Producers. The copper-mining industry offers an example of wider significance. An analysis of companies in this field must take into account the fact that since 1914 a substantial number of new low-cost producers have been developed and that other companies have succeeded in reducing extraction costs through metallurgical improvements. This means that there has been a definite lowering of the “center of gravity” of production costs for the entire industry. Other things being equal, this would make for a lower selling price in the future than obtained in the past. (Such a development is more strikingly illustrated by the crude-rubber industry.) Differently stated, mines that formerly rated as low-cost producers, *i.e.*, as having costs well below the average, may have lost this advantage, unless they have also greatly improved their technique

⁵ The same type of reasoning clearly applies to the *volume of business* due to war conditions, as well illustrated by the exhibits of airplane companies in 1939–1940.

of production. The analyst would have to allow for these developments in his calculations, by taking a cautious view of future copper prices—at least as compared with the prewar or the predepression average.⁶

Anomalous Prices and Price Relationships in the History of the I.R.T. System. The checkered history of the Interborough Rapid Transit System in New York City has presented a great variety of divergences between market prices and the real or relative values ascertainable by analysis. Two of these discrepancies turn upon the fact that *for specific reasons* the then current and past earnings should not have been accepted as indicative of future earning power. In abbreviated form the details of these two situations are as follows:

For a number of years prior to 1918 the Interborough Rapid Transit Company was very prosperous. In the 12 months ended June 30, 1917, it earned \$26 per share on its capital stock and paid dividends of \$20 per share. Nearly all of this stock was owned by Interborough Consolidated Corporation, a holding concern (previously called Interborough-Metropolitan Corporation) which in turn had outstanding collateral trust bonds, 6% preferred stock and common stock. Including its share of the undistributed earnings of the operating company it earned about \$11.50 per share on its preferred stock and about \$2.50 on the common. The preferred sold in the market at 60, and the common at 10. These issues were actively traded in, and they were highly recommended to the public by various financial agencies which stressed the phenomenal growth of the subway traffic.

A modicum of analysis would have shown that the real picture was entirely different from what appeared on the surface. New rapid transit facilities were being constructed under contract between the City of New York and the Interborough (as well as others under contract between the City and the Brooklyn Rapid Transit Company). As soon as the new lines were placed in operation, which was to be the following year, the earnings available for Interborough were to be limited under this contract to the figure prevailing in 1911–1913, *which was far less than the current*

⁶ On the other hand, the rise in the price of gold in 1933 invalidated *for statistical purposes* previous earnings of gold producers based on \$20.67 gold. Whether or not the future price of gold will remain at \$35 is anyone's guess, but there seems no reason to make any calculations based on the old value.

profits. The City would then be entitled to receive a high return on its enormous investment in the new lines. If and after all such payments were made in full, including back accruals, the City and the Interborough would then share equally in surplus profits. However, the preferential payments due the City would be so heavy that experts had testified that under the most favorable conditions it would be *more than 30 years* before there could be any surplus income to divide with the company.

The subjoined brief table shows the significance of these facts.

INTERBOROUGH RAPID TRANSIT SYSTEM

Item	Actual earnings 1917	<i>Maximum earnings when contract with City became operative</i>
Balance for I.R.T. stock	\$9,100,000	\$5,200,000
Share applicable to Interborough Consolidated Corp.	8,800,000	5,000,000
Interest on Inter. Consol. bonds	3,520,000	3,520,000
Balance for Inter. Consol. pfd.	5,280,000	1,480,000
Preferred dividend requirements	2,740,000	2,740,000
Balance for Inter. Consol. common	2,540,000	1,260,000(<i>d</i>)
Earned per share, Inter. Consol. pfd.	\$11.50	\$3.25
Earned per share, Inter. Consol. common	2.50	nil

The underlying facts proved beyond question, therefore, that instead of a brilliant future being in store for Interborough, it was destined to suffer a severe loss of earning power within a year's time. It would then be quite impossible to maintain the \$6 dividend on the holding company's preferred stock, and no earnings at all would be available for the common for a generation or more. On this showing it was mathematically certain that both Interborough Consolidated stock issues were worth far less than their current selling prices.⁷

⁷ Indications pointed strongly to manipulative efforts by insiders in 1916–1917 to foist these shares upon the public at high prices before the period of lower earnings began. The payment of full dividends on the preferred stock, during an interlude of large earnings known to be temporary, was inexcusable from the standpoint of corporate policy but understandable as a

The sequel not only bore out this criticism, which it was bound to do, but demonstrated also that where an *upper limit* of earnings or value is fixed, there is usually danger that the actual figure will be less than the maximum. The opening of the new subway lines coincided with a large increase in operating costs, due to war-time inflation; and also, as was to be expected, it diminished the profits of the older routes. Interborough Rapid Transit Company was promptly compelled to reduce its dividend, and it was omitted entirely in 1919. In consequence the holding company, Interborough Consolidated, suspended its preferred dividends in 1918. The next year it defaulted the interest on its bonds, became bankrupt and disappeared from the scene, *with the complete extinction of both its preferred and common stock*. Two years later Interborough Rapid Transit Company, recently so prosperous, barely escaped an imminent receivership by means of a “voluntary” reorganization which extended a maturing note issue. When this extended issue matured in 1932, the company was again unable to pay, and this time receivers took over the property.

During the ten-year period between the two receivership applications another earnings situation developed, somewhat similar to that of 1917.⁸ In 1928 the Interborough reported earnings of \$3,000,000, or \$8.50 per share for its common stock, and the shares sold as high as 62. But these earnings included \$4,000,000 of “back preferential” from the subway division. The latter represented a limited amount due the Interborough Rapid Transit out of subway earnings to make good a deficiency in the profits of the early years of operating the new lines. On June 30, 1928 the amount of back preferential remaining to be paid the company was only

device to aid in unloading stock. These dividend distributions were not only unfair to the 4½% bondholders, but, because of certain prior developments, they were probably illegal as well. (Reference to this aspect of the case was made in Chap. 20 on accompanying CD).

⁸ See Appendix Note 56, p. 792 on accompanying CD, for a concise discussion of the numerous anomalies in price between various Interborough System securities, *viz.*:

1. Between Interborough Metropolitan 4½s and Interborough Consolidated Preferred in 1919.
2. Between I.R.T. 5s and I.R.T. 7s in 1920.
3. Between I.R.T. stock and Manhattan “Modified” stock in 1929.
4. Between I.R.T. 5s and I.R.T. 7s in 1933.
5. Between Manhattan “Modified” and Manhattan “Unmodified” stock in 1933.

\$1,413,000. Hence all the profits available for Interborough stock were due to a special source of revenue that could continue for only a few months longer. Heedless speculators, however, were capitalizing as permanent an earning power of Interborough stock which analysis would show was of entirely nonrecurrent and temporary character.

Chapter 39

PRICE-EARNINGS RATIOS FOR COMMON STOCKS. ADJUSTMENTS FOR CHANGES IN CAPITALIZATION

IN PREVIOUS CHAPTERS various references have been made to Wall Street's ideas on the relation of earnings to values. A given common stock is generally considered to be worth a certain number of times its current earnings. This number of times, or multiplier, depends partly on the prevailing psychology and partly on the nature and record of the enterprise. Prior to the 1927–1929 bull market ten times earnings was the accepted standard of measurement. More accurately speaking, it was the common point of departure for valuing common stocks, so that an issue would have to be considered exceptionally desirable to justify a higher ratio, and conversely.

Beginning about 1927 the ten-times-earnings standard was superseded by a rather confusing set of new yardsticks. On the one hand, there was a tendency to value common stocks in general more liberally than before. This was summarized in a famous dictum of a financial leader implying that good stocks were worth fifteen times their earnings.¹ There was also the tendency to make more sweeping distinctions in the valuations of different kinds of common stocks. Companies in especially favored groups, *e.g.*, public utilities and chain stores, in 1928–1929, sold at a very high multiple of current earnings, say, twenty-five to forty times. This was true also of the “blue chip” issues, which comprised leading units in miscellaneous fields. As pointed out before, these generous valuations

¹ The wording of this statement, as quoted in the *Wall Street Journal* of March 26, 1928, was as follows: “ ‘General Motors shares, according to the Dow, Jones & Co. averages,’ Mr. Raskob remarked, ‘should sell at fifteen times earning power, or in the neighborhood of \$225 per share, whereas at the present level of \$180 they sell at approximately only twelve times current earnings.’ ”

were based upon the assumed continuance of the upward trend shown over a longer or shorter period in the past. Subsequent to 1932 there developed a tendency for prices to rule higher in relation to earnings because of the sharp drop in long-term interest rates.

Exact Appraisal Impossible. Security analysis cannot presume to lay down general rules as to the “proper value” of any given common stock. Practically speaking, there is no such thing. The bases of value are too shifting to admit of any formulation that could claim to be even reasonably accurate. The whole idea of basing the value upon current earnings seems inherently absurd, since we know that the current earnings are constantly changing. And whether the multiplier should be ten or fifteen or thirty would seem at bottom a matter of purely arbitrary choice.

But the stock market itself has no time for such scientific scruples. It must make its values first and find its reasons afterwards. Its position is much like that of a jury in a breach-of-promise suit; there is no sound way of measuring the values involved, and yet they must be measured somehow and a verdict rendered. Hence the prices of common stocks are not carefully thought out computations but the resultants of a welter of human reactions. The stock market is a voting machine rather than a weighing machine. It responds to factual data not directly but only as they affect the decisions of buyers and sellers.

Limited Functions of the Analyst in Field of Appraisal of Stock Prices. Confronted by this mixture of changing facts and fluctuating human fancies, the securities analyst is clearly incapable of passing judgment on common-stock prices generally. There are, however, some concrete, if limited, functions that he may carry on in this field, of which the following are representative:

1. He may set up a basis for *conservative* or *investment* valuation of common stocks, as distinguished from speculative valuations.
2. He may point out the significance of: (a) the capitalization structure; and (b) the source of income, as bearing upon the valuation of a given stock issue.
3. He may find unusual elements in the balance sheet which affect the implications of the earnings picture.

A Suggested Basis of Maximum Appraisal for Investment. The investor in common stocks, equally with the speculator, is dependent on

future rather than past earnings. His fundamental basis of appraisal must be an intelligent and conservative estimate of the future earning power. But his *measure* of future earnings can be conservative only if it is limited by actual performance over a period of time. We have suggested, however, that the profits of the most recent year, taken singly, might be accepted as the gage of future earnings, *if* (1) general business conditions in that year were not exceptionally good, (2) the company has shown an upward trend of earnings for some years past and (3) the investor's study of the industry gives him confidence in its continued growth. In a very exceptional case, the investor may be justified in counting on higher earnings in the future than at any time in the past. This might follow from developments involving a patent or the discovery of new ore in a mine or some similar specific and significant occurrence. But in most instances he will derive the investment value of a common stock from the average earnings of a period between five and ten years. This does not mean that all common stocks with the same average earnings should have the same value. The common-stock investor (*i.e.*, the *conservative* buyer) will properly accord a more liberal valuation to those issues which have current earnings above the average or which may reasonably be considered to possess better than average prospects or an inherently stable earning power. But it is the essence of our viewpoint that some moderate upper limit must *in every case* be placed on the multiplier in order to stay within the bounds of conservative valuation. We would suggest that *about 20 times average earnings* is as high a price as can be paid in an *investment* purchase of a common stock.

Although this rule is of necessity arbitrary in its nature, it is not entirely so. Investment presupposes demonstrable value, and the typical common stock's value can be demonstrated only by means of an established, *i.e.*, an average, earning power. But it is difficult to see how average earnings of *less than* 5% upon the market price could ever be considered as vindicating that price. Clearly such a price-earnings ratio could not provide that *margin of safety* which we have associated with the investor's position. It might be accepted by a purchaser in the expectation that future earnings will be larger than in the past. But in the original and most useful sense of the term such a basis of valuation is *speculative*.² It falls outside the purview of common-stock investment.

² See Appendix Note 57, p. 794 on accompanying CD, for a discussion of the relationship between bond-interest rates and the "multiplier" for common stocks.

Higher Prices May Prevail for Speculative Commitments. The intent of this distinction must be clearly understood. We do not imply that it is a mistake to pay more than 20 times average earnings for any common stock. We do suggest that such a price would be speculative. The purchase may easily turn out to be highly profitable, but in that case it will have proved a wise or fortunate speculation. It is proper to remark, moreover, that very few people are consistently wise or fortunate in their speculative operations. Hence we may submit, as a corollary of no small practical importance, *that people who habitually purchase common stocks at more than about 20 times their average earnings are likely to lose considerable money in the long run.* This is the more probable because, in the absence of such a mechanical check, they are prone to succumb recurrently to the lure of bull markets, which always find some specious argument to justify paying extravagant prices for common stocks.

Other Requisites for Common Stocks of Investment Grade and a Corollary Therefrom. It should be pointed out that if 20 times average earnings is taken as the *upper limit* of price for an investment purchase, then ordinarily the price paid should be substantially less than this maximum. This suggests that about 12 or 12½ times average earnings may be suitable for the typical case of a company with neutral prospects. We must emphasize also that a reasonable ratio of market price to average earnings is not the only requisite for a common-stock investment. It is a necessary but not a sufficient condition. The company must be satisfactory also in its financial set-up and management, and not unsatisfactory in its prospects.

From this principle there follows another important corollary, *viz.: An attractive common-stock investment is an attractive speculation.* This is true because, if a common stock can meet the demand of a conservative investor that he get full value for his money *plus* not unsatisfactory future prospects, then such an issue must also have a fair chance of appreciating in market value.

Examples of Speculative and Investment Common Stocks. Our definition of an investment basis for common-stock purchases is at variance with the Wall Street practice in respect to common stocks of high rating. For such issues a price of considerably more than 20 times average earnings is held to be warranted, and furthermore these stocks are designated as “investment issues” regardless of the price at which they

between corporation and banker, it was scarcely to be hoped that the interests of the security buyer would be adequately protected. Allowance must be made besides for the generally distorted and egotistical views prevalent in the financial world during 1928 and 1929.

Developments since 1929. For a time it appeared that the demoralizing influence of investment-trust financing was likely to spread to the entire field of common-stock flotations and that even the leading banking houses were prepared to sell shares of new or virtually new commercial enterprises, without past records and on the basis entirely of their expected future earnings. (There were definite signs of this tendency in the beer-and liquor-stock flotations of 1933.) Fortunately, a reversal of sentiment has since taken place, and we find that the relatively few common-stock issues sponsored by the first-line houses are now similar in character and arrangements to those of former days.⁵

However, there has been a fair amount of activity in the common-stock flotation field since 1933, carried on by houses of secondary size or standing. Most of these issues represent shares of new enterprises, which in turn tend to fall in whatever industrial group is easiest to exploit at the time. Thus in 1933 we had many gold-, liquor- and beer-stock flotations, and in 1938–1939 there was a deluge of airplane issues. The formation of new investment companies, on the other hand, appears to be a perennial industry. In surveying such common-stock flotations, the starting point must be the realization that the investment banker behind them is not acting primarily in behalf of his clients who buy the issue. For on the one side the new corporation is not an independent entity, which can negotiate at arm's-length with various bankers representing clients with money to invest, and on the other side, the banker is himself in part a promoter, in part a proprietor of the new business. In an important sense, he is raising funds from the public *for himself*.

New Role of Such Investment Bankers. More exactly stated, the investment banker who floats such issues is operating in a double guise. He makes a deal on his own behalf with the originators of the enterprise, and then he makes a separate deal with the public to raise from them the funds he has promised the business. He demands—and no doubt is

⁵ See, for example, the offerings of New Idea Company common in 1937, General Shoe Company common in 1938, Julius Garfinckel and Company in 1939.

entitled to—a liberal reward for his pains. But the very size of his compensation introduces a significant change in his relationship to the public. For it makes a very real difference whether a stock buyer can consider the investment banker as essentially his agent and representative or must view the issuing house as a promoter-proprietor-manager of a business, endeavoring to raise funds to carry it on.

When investment banking becomes identified with the latter approach, the interests of the general public are certain to suffer. The Securities Act of 1933 aims to safeguard the security buyer by requiring full disclosure of the pertinent facts and by extending the previously existing liability for concealment or misrepresentation. Although full disclosure is undoubtedly desirable, it may not be of much practical help except to the skilled and shrewd investor or to the trained analyst. It is to be feared that the typical stock buyer will neither read the long prospectus carefully nor understand the implications of all it contains. Modern financing methods are not far different from a magician's bag of tricks; they can be executed in full view of the public without its being very much the wiser. The use of stock options as part of the underwriter-promoter's compensation is one of the newer and more deceptive tricks of the trade.

Two examples of new enterprise financing, in 1936 and 1939, will be discussed in some detail, with the object of illustrating both the character of these flotations and the technique of analysis required to appraise them.⁶

Example A: American Bantam Car Corporation, July 1936. This offering consisted of 100,000 shares of 6% Cumulative Convertible Preference stock, sold to the public at \$10 per share, its par value. Each share was convertible into 3 shares of common stock. The "underwriters" received a gross commission of \$2 per share, or 20% of the selling price; however, this compensation was for selling effort only, without any guarantee to take or place the shares.

The new company had acquired the plant of the American Austin Car Company, which had started out in 1929 with \$3,692,000 in cash capital and had ended in bankruptcy. The organizers of the Bantam

⁶ In the 1934 edition we analyzed, at this point, the offering of stock in Mouquin, Inc. (liquor importers) made in September 1933 at \$6.75 per share. The facts showed that the public was asked to place a valuation of \$1,670,000 on an enterprise with physical assets of \$424,000 and no earnings record. The company passed out of existence in 1937, and the public's investment was wiped out.

enterprise bought in the Austin assets, subject to various liabilities, for only \$5,000. They then turned over their purchase, plus \$500 in cash, to the new company for 300,000 shares of its common stock. In other words, the entire common issue cost the promoters \$5,500 cash plus their time and effort.

The prospectus stated—what was an obvious fact—that the preference stock was “offered as a speculation.” That speculation could work out successfully only if the conversion privilege proved valuable, since the mere 6% return on a preferred stock was scarcely an adequate reward for the risk involved. (The character of the risk was shown clearly enough in the enormous losses of the predecessor company.) But note that before the conversion privilege could be worth anything, the common stock would have to sell for more than $\$3\frac{1}{3}$ per share—and *in that case the \$5,500 investment of the organizers would be worth over \$1,000,000*. In other words, before the public could make *any* profit, the organizers would have to multiply their stake 180 *times*.

Sequel. By June 30, 1939, the company had accumulated a deficit of \$750,000; it was compelled to borrow money from the R.F.C., and the preferred-stock holder no longer had any equity in current assets. The price of the preference stock declined to 3, but at the same time the common was quoted at $\frac{3}{4}$ bid. This meant (if the quoted price could be trusted) that, although the public had lost 70% of its investment, the organizers’ \$5,500 contribution had still a nominal market value of \$225,000.

Example B: Aeronautical Corporation of America, December 1939. This company offered to the public 60,000 shares of new common stock at \$6.25 per share. The “underwriters,” who made no firm commitment to take any shares, received on the sale of each share the following three kinds of compensation: (1) 90 cents in cash; (2) $\frac{1}{20}$ of a share of stock, ostensibly worth 31 cents, donated by the principal stockholders; (3) a warrant to buy $\frac{1}{2}$ share of stock at prices varying between \$6.25 and \$8.00 per share. If the common stock was fairly worth the \$6.25 offering price, these warrants were undoubtedly worth at least \$1 per share called for. This would mean an aggregate commission for selling effort of \$2.34 per share, or more than one-third the amount paid over by the public.

The company had been in business since 1928 and had been manufacturing its light Aeronca planes since 1931. Its business had grown steadily from \$124,000 sales in 1934 to about \$850,000 sales in 1939.

However, the enterprise had been definitely unprofitable to the end of 1938, showing an aggregate deficit at that time of over \$500,000 (including development expense written off). In 9½ months to October 15, 1939, it had earned \$50,000. Prior to this offering of new shares to the public there were outstanding 66,000 shares of stock, which had a net asset value of only \$1.28 per share. In addition to the warrants for 30,000 shares to be given the underwriters, there were like warrants for 15,000 shares in the hands of the officers.

There seemed strong reason to believe that the company occupied a favorable position in a growing industry. But analysis would show that the participation of the public in any future increase in earnings was seriously diluted in three different ways: by the cash selling expense subtracted from the price to be paid for the new stock, by the small tangible assets contributed by the original owners for their stock interest and by the warrants which would siphon off part of any increased value. To show the effect of this dilution, let us assume that the company proves so successful that its fair value is twice its tangible assets after completion of this financing—say, about \$1,000,000 as compared with \$484,000 of tangible assets. What could then be the value of the stock for which the public paid \$6.25? If there were no warrants outstanding, this value would be about \$8 per share on 126,000 shares. But allowing for a value of say \$2.00 per share for the warrants, the stock itself would be worth only \$7.25 per share. Hence even a very substantial degree of success on the part of this enterprise would add a mere 16% to the value of the public's purchase. Should things go the other way, a very large part of the investment would soon be dissipated.

Should the Public Finance New Ventures? Fairly complete observation of new-enterprise financing registered with the S.E.C. since 1933 has given us a pessimistic opinion as to its soundness and its economic value to the nation. The venturing of capital into new businesses is essential to American progress, but no substantial contribution to the upbuilding of the country has ever been made by *new ventures publicly* financed. Wall Street has always realized that the capital for such undertakings should properly be supplied on a private and personal basis—by the organizers themselves or people close to them. Hence the sale of shares in new businesses has never been a truly reputable pursuit, and the leading banking houses will not engage in it. The less fastidious channels

through which such financing is done exact so high an over-all selling cost—to the public—that the chance of success of the new enterprise, small enough at best, is thereby greatly diminished.

It is our considered view that the nation's interest would be served by amending the Securities Act so as to prohibit the public offering of securities of new and definitely unseasoned ventures. It would not be easy to define precisely the criteria of "seasoning,"—e.g., size, number of years' operation without loss—and it may be necessary to vest some discretion on this score with the S.E.C. We think, however, that borderline and difficult cases will be relatively few in number (although our second example above belongs, perhaps, in this category). We should be glad to see the powers and duties of the S.E.C. diminished in many details of minor significance; but on this point of protecting a public incapable of protecting itself, our view leans strongly towards more drastic legislation.

Blue-sky Promotions. In the "good old days" fraudulent stock promoters relied so largely upon high pressure salesmanship that they rarely bothered to give their proposition any semblance of serious merit. They could sell shares in a mine that was not even a "hole in the ground" or in an invention the chief recommendation for which was the enormous profit made by Henry Ford's early partners. The victim was in fact buying "blue sky" and nothing else. Any one with the slightest business sense could have detected the complete worthlessness of these ventures almost at a glance; in fact, the glossy paper used for the prospectus was in itself sufficient to identify the proposition as fraudulent.

The tightening of federal and state regulations against these swindles has led to a different type of security promotion. Instead of offering something entirely worthless, the promoter selects a real enterprise that he can sell at much more than its fair value. By this means the law can be obeyed and the public exploited just the same. Oil and mining ventures lend themselves best to such stock flotations, because it is easy to instill in the uninitiated an exaggerated notion of their true worth. The S.E.C. has been concerning itself more and more seriously with endeavors to defeat this type of semifraud. In theory a promoter may offer something worth \$1 per share at \$5, provided he discloses all the facts and adds no false representations. The Commission is not authorized to pass upon the soundness of new securities or the fairness of their price (except in the case of public-utility issues which come under the terms of the Public Utility Holding

Company Act of 1935). Actually, it appears to be doing its best, by various pressures, to discourage and even prevent the more grossly inequitable offerings. But it is essential that the public recognize that the Commission's powers in this respect are severely limited and that only a sceptical analysis by the intending buyer can assure him against exploitation.

Promotional activities are attracted especially to any new industry that is in the public eye. Profits made by those first in the field, or even currently by the enterprise floated, can be given a fictitious guise of permanence and of future enhancement. Hence gross overvaluations can be made plausible enough to sell. In the liquor flotations of 1933 the degree of overvaluation depended entirely upon the conscience of the sponsors. Accordingly, the list of stock offerings showed all gradations from the thoroughly legitimate down to the almost completely fraudulent.⁷ A somewhat similar picture is presented by the aircraft flotations of 1938–1939. The public would do well to remember that whenever it becomes easy to raise capital for a particular industry, both the chances of unfair deals are magnified and the danger of overdevelopment of the industry itself becomes very real.

Repercussions of Unsound Investment Banking. The relaxation of investment bankers' standards in the late 1920's, and their use of ingenious means to enlarge their compensation, had unwholesome repercussions in the field of corporate management. Operating officials felt themselves entitled not only to handsome salaries but also to a substantial participation in the profits of the enterprise. In this respect the investment-trust arrangements, devised by the banking houses for their own benefit, set a stimulating example to the world of "big business."

Whether or not it is proper for executives of a large and prosperous concern to receive annual compensation running into hundreds of thousands or even millions of dollars is perhaps an open question. Its answer will depend upon the extent to which the corporation's success is due to their unique or surpassing ability, and this must be very difficult to determine with assurance. But it may not be denied that devious and questionable means were frequently employed to secure these large bonuses to the management without full disclosure of their extent to the stockholders.

⁷ See Appendix Note 55, p. 792 on accompanying CD, relative to investors' experience with brewery-stock flotations of 1933.

Stock-option warrants (or long-term subscription rights) to buy shares at low prices, proved an excellent instrument for this purpose—as we have already pointed out in our discussion of stockholder-management relationships. In this field complete and continued publicity is not only theoretically desirable but of practical utility as well. The legislation of 1933–1934 marks an undeniable forward step in this regard, since the major facts of managerial compensation must now be disclosed in registration statements and in annual supplements thereto (Form 10-K). With publicity given to this compensation, we believe that the self-interest of stockholders may be relied on fairly well to prevent it from passing all reasonable limits.

Chapter 48

SOME ASPECTS OF CORPORATE PYRAMIDING

PYRAMIDING IN CORPORATE finance is the creation of a speculative capital structure by means of a holding company or a series of holding companies. Usually the predominating purpose of such an arrangement is to enable the organizers to control a large business with the investment of little or no capital and also to secure to themselves the major part of its surplus profits and increased going-concern value. The device is most often utilized by dominant interests to “cash in” speculative profits on their holdings and at the same time to retain control. With the funds so provided, these successful captains of finance generally endeavor to extend their control over additional operating enterprises. The technique of pyramiding is well illustrated by the successive maneuvers of O. P. and M. J. Van Sweringen, which started with purchase of control of the then relatively unimportant New York, Chicago, and St. Louis Railroad and rapidly developed into a far-flung railroad “empire.”¹

Example: The Van Sweringen Pyramid. The original transaction of the Van Sweringens in the railroad field took place in 1916. It consisted of the

¹ The complete story of how this pyramiding was effected is told in the *Hearings before the Committee on Banking and Currency, United States Senate*, 73d Congress, 1st Session, on Senate Resolution 84 of the 72d Congress and Senate Resolution 56 of the 73d Congress, Part 2, pp. 563–777, June 5 to 8, 1933—on “Stock Exchange Practices.” The story is also set forth in greater detail and with graphic portrayal in *Regulation of Stock Ownership in Railroads, Part 2*, pp. 820–1173 (House Report No. 2789, 71st Congress, 3d Session), especially the inserts at p. 878 thereof. For graphic and other presentation of the effects of pyramiding in the public-utility field see *Utility Corporations* (Sen. Doc. 92, 70th Congress, 1st Session, pt. 72-A), pp. 154–166.

The most notorious pyramided structure of recent years was the Insull set-up. An interesting example of a different type is presented by the United States and Foreign Securities Corporation—United States and International Securities Corporation relationship. These two situations are briefly described in Note 64 at p. 817 of the Appendix on accompanying CD.

purchase from the New York Central Railroad Company, for the sum of \$8,500,000, of common and preferred stock constituting control of the New York, Chicago, and St. Louis Railroad Company (known as the “Nickel Plate”). This purchase was financed by giving a note to the seller for \$6,500,000 and by a cash payment of \$2,000,000, which in turn was borrowed from a Cleveland bank. Subsequent acquisitions of control of many other companies were effected by various means, including the following:

1. The formation of a private corporation for the purpose (*e.g.*, Western Corporation to acquire control of Lake Erie and Western Railroad Company, and Clover Leaf Corporation to acquire control of Toledo, St. Louis and Western Railroad Company—both in 1922).

2. The use of the resources of one controlled railroad to acquire control of others (*e.g.*, the New York, Chicago and St. Louis Railroad Company purchased large amounts of stock of Chesapeake and Ohio Railway and Pere Marquette Railway Company during 1923–1925).

3. The formation of a holding company to control an individual road, with sale of the holding company’s securities to the public (*e.g.*, Chesapeake Corporation, which took over control of Chesapeake and Ohio Railway Company and sold its own bonds and stock to the public, in 1927).

4. Formation of a general holding company (*e.g.*, Alleghany Corporation, chartered in 1929. This ambitious project took over control of many railroad, coal, and miscellaneous enterprises).

The report on the “Van Sweringen Holding Companies” made to the House of Representatives in 1930² includes an interesting chart showing the contrast between the control exercised by the Van Sweringens and their relatively small equity or financial interest in the capital of the enterprises controlled. On page 646 we append a summary of these data. The figures in Column *A* show the percentage of voting securities held or controlled by the Van Sweringens; the figures in Column *B* show the proportion of the “contributed capital” (bonds, stock, and surplus) actually owned directly or indirectly by them.

It is worth recalling that similar use of the holding company for pyramiding control of railroad properties had been made before the war—notably in the case of the Rock Island Company. This enterprise was organized in 1902. Through an intermediate subsidiary it acquired nearly

² House Report 2789, 71st Congress, 3d Session, Part 2, pp. 820–1173.

all the common stock of the Chicago, Rock Island and Pacific Railway Company and about 60% of the capital stock of the St. Louis and San Francisco Railway Company. Against these shares the two holding companies issued large amounts of collateral trust bonds, preferred stock and common stock. In 1909 the stock of the St. Louis and San Francisco was sold. In 1915 the Rock Island Company and its intermediate subsidiary both went into bankruptcy; the stock of the operating company was taken over by the collateral trust bondholders; and the holding company stock issues were wiped out completely.

Companies	A. Control, %	B. Equity, %
Holding companies:		
The Vaness Co.	80.0	27.7
General Securities Corp.	90.0	51.8
Geneva Corp.	100.0	27.7
Alleghany Corp.	41.8	8.6
The Chesapeake Corp.	71.0	4.1
The Pere Marquette Corp.	100.0	0.7
Virginia Transportation Corp.	100.0	0.8
The Pittston Co.	81.8	4.3
Railroad Companies:		
The New York, Chicago and St. Louis R.R. Co.	49.6	0.7
The Chesapeake and Ohio Railway Co.	54.4	1.0
Pere Marquette Railway Co.	48.3	0.6
Erie Railroad Co.	30.8	0.6
Missouri Pacific Railroad Co.	50.5	1.7
The Hocking Valley Railway Co.	81.0	0.2
The Wheeling and Lake Erie Railway Co.	53.3	0.3
Kansas City Southern Railway Co.	20.8	0.9

The ignominious collapse of this venture was accepted at the time as marking the end of “high finance” in the railroad field. Yet some ten years later the same unsound practices were introduced once again, but on a larger scale and with correspondingly severer losses to investors. It remains to add that the Congressional investigation of railroad holding companies instituted in 1930 had its counterpart in a similar inquiry into the finances of the Rock Island Company made by the Interstate

Commerce Commission in 1914. The memory of the financial community is proverbially and distressingly short.

Evils of Corporate Pyramiding. The pyramiding device is harmful to the security-buying public from several standpoints. It results in the creation and sale to investors of large amounts of unsound senior securities. It produces common stocks of holding companies which are subject to deceptively rapid increases in earning power in favorable years and which are invariably made the vehicle of wild and disastrous public speculation. The possession of control by those who have no real capital investment (or a relatively minor one) is inequitable³ and makes for irresponsible and unsound managerial policies. Finally the holding company device permits of financial practices that exaggerate the indicated earnings, dividend return, or “book value,” during boom times, and thus intensify speculative fervor and facilitate market manipulation. Of these four objections to corporate pyramiding, the first three are plainly evident, but the last one requires a certain amount of analytical treatment in order to present its various implications.

Overstatement of Earnings. Holding companies can overstate their apparent earning power by valuing at an unduly high price the stock dividends they receive from subsidiaries or by including in their income profits made from the sale of stock of subsidiary companies.

Examples: The chief asset of Central States Electric Corporation was a large block of North American Company common on which regular stock dividends were paid. Prior to the end of 1929, these stock dividends were reported as income by Central States at the market value then current. As explained in our chapter on stock dividends, such market prices averaged far in excess of the value at which North American charged the stock dividends against its surplus and also far in excess of the distributable earnings on North American common. Hence the income account of Central States Electric gave a misleading impression of the earnings accruing to the company.

A transaction of somewhat different character but of similar effect to the foregoing was disclosed by the report of American Founders Trust for 1927. In November 1927 American Founders offered its shareholders the privilege of buying about 88,400 shares of International Securities Corporation

³ See Appendix Note 65, p. 820 on accompanying CD, for examples on this point.

of America Class B Common at \$16 per share. International Securities Corporation was a subsidiary of American Founders, and the latter had acquired the Class B stock of the former at a cash cost of \$3.70 per share in 1926. American Founders reported net earnings for common stock in 1927 amounting to \$1,316,488, most of which was created by its own stockholders through their purchase of shares of the subsidiary as indicated above.⁴

Distortion of Dividend Return. Just as a holding company's income may be exaggerated by reason of stock dividends received, so the dividend return on its shares may be distorted in the public's mind by payment of periodic stock dividends with a market value exceeding current earnings. People are readily persuaded also to regard the value of frequent subscription rights as equivalent to an income return on the common stock. Pyramided enterprises are prodigal with subscription rights, for they flow naturally from the succession of new acquisitions and new financing which both promote the ambitions of those in control and maintain speculative interest at fever heat—until the inevitable collapse.

The issuance of subscription rights sometimes gives the stock market an opportunity to indulge in that peculiar circular reasoning which is the joy of the manipulator and the despair of the analyst. Company A's stock is apparently worth no more than 25. Speculation or pool activity has advanced it to 75. Rights are offered to buy additional shares at 25, and the rights have a market value of, say, \$10 each. To the speculative fraternity these rights are practically equivalent to a special dividend of \$10. It is a bonus that not only justifies the rise to 75 but warrants more optimism and a still higher price. To the analyst the whole proceeding is a delusion and a snare. Whatever value the rights command is manufactured solely out of speculators' misguided enthusiasm, yet this chimerical value is accepted as tangible income and as vindication of the enthusiasm that gave it birth. Thus, with the encouragement of the manipulator, the speculative public pulls itself up by its bootstraps to dizzier heights of irrationality.

⁴ In the three years 1928–1930 the American Founders group reported total net investment profits of about \$43,300,000; but all of this sum and more was derived from profits on inter-company transactions of the kind described above. See the S.E.C.'s Over-all Report on Investment Trusts, Part III, Chapter VI, Sections II and III, released February 12, 1940.

Example: Between August 1928 and February 1929 American and Foreign Power Company common stock advanced from 33 to 138^{7/8}, although paying no dividend. Rights were offered to the common stockholders (and other security holders) to buy second preferred stock with detached stock-purchase warrants. The offering of these rights, which had an initial market value of about \$3 each, was construed by many as the equivalent of a dividend on the common stock.

Exaggeration of Book Value. The exaggeration of book value may be effected in cases where a holding company owns most of the shares of a subsidiary and where consequently an artificially high quotation may readily be established for the subsidiary issue by manipulating the small amount of stock remaining in the market. This high quotation is then taken as the basis of figuring the book value (sometimes called the "break-up value") of the share of the holding company. For an early example of these practices we may point to Tobacco Products Corporation (Va.) which owned about 80% of the common stock of United Cigar Stores Company of America. An unduly high market price seems to have been established in 1927 for the small amount of Cigar Stores stock available in the market, and this high price was used to make Tobacco Products shares appear attractive to the unwary buyer. The thoroughly objectionable accounting and stock dividend policies of United Cigar Stores, which we have previously discussed, were adjuncts to this manipulative campaign.

The most extraordinary example of such exaggeration of the book value is found, perhaps, in the case of Electric Bond and Share Company and was founded on its ownership of most of the American and Foreign Power Company warrants. The whole set-up seems to have been contrived to induce the public to pay absolutely fantastic prices without their complete absurdity being too apparent. A brief review of the various steps in this phantasmagoria of inflated values should be illuminating to the student of security analysis.

First, American and Foreign Power Company issued in all 1,600,000 shares of common and warrants to buy 7,100,000 more shares at \$25. This permitted a price to be established for the common stock that generously capitalized its earnings and prospects but paid no attention to the existence of the warrants. The quotation of the common was aided by the issuance of rights, as explained above.

Second, the high price registered for the relatively small common-stock issue automatically created a correspondingly high value for the millions of warrants.

Third, Electric Bond and Share could apply these high values to its large holdings of American and Foreign Power common and its enormous block of warrants, thus setting up a correspondingly inflated value for its own common stock.

Exploitation of the Stock-purchase-warrant Device. The result of this process, at its farthest point in 1929, was almost incredible. The earnings available for American and Foreign Power common stock had shown the following rising trend (due in good part, however, to continuous new acquisitions):

Year	Earnings for common	Number of shares	Earned per share
1926	\$216,000	1,243,988	0.17
1927	856,000	1,244,388	0.69
1928	1,528,000	1,248,930	1.22
1929	6,510,000	1,624,357	4.01

On the theory that a “good public-utility stock is worth up to 50 times its current earnings,” a price of $199\frac{1}{4}$ per share was recorded for American and Foreign Power common. This produced in turn a price of 174 for the warrants. Hence, by the insane magic of Wall Street, earnings of \$6,500,000 were transmuted into a market value of \$320,000,000 for the common shares and \$1,240,000,000 for the warrants, a staggering total of \$1,560,000,000.

Since over 80% of the warrants were owned by Electric Bond and Share Company, the effect of these absurd prices for American and Foreign Power junior securities was to establish a correspondingly absurd break-up value for Electric Bond and Share common. This break-up value was industriously exploited to justify higher and higher quotations for the latter issue. In March 1929 attention was called to the fact that the market value of this company’s portfolio was equivalent to about \$108 per share (of new stock), against a range of 91 to 97 for its own market quotation. The implication was that Electric Bond and Share stock was “undervalued.” In September 1929 the price had advanced to $184\frac{1}{2}$. It was then computed that the “break-up value” amounted to about 150, “allowing no

value for the company's supervisory and construction business." The public did not stop to reflect that a considerable part of this "book value" was based upon an essentially fictitious market quotation for an asset that the company had received *for nothing* only a few years before (as a bonus with American and Foreign Power Second Preferred stock).

This exploitation of the warrants had a peculiar vitality which made itself felt even in the depth of the depression in 1932–1933. Time having brought its usual revenge, the once dazzling American and Foreign Power Company had trembled on the brink of receivership, as shown by a price of only 15¹/₄ for its 5% bonds. Nevertheless, in November 1933 the highly unsubstantial warrants still commanded an aggregate market quotation of nearly \$50,000,000, a figure that bore a ridiculous relationship to the exceedingly low values placed upon the senior securities. The following table shows how absurd this situation was, the more so since it existed in a time of deflated stock prices, when relative values are presumably subjected to more critical appraisal.

(000 OMITTED IN MARKET VALUE)

Issue	Amount outstanding	Price Nov. 1933	Total market value, 1933	Price Dec. 31, 1938	Total market value, 1938
5% Debentures	\$50,000	40	\$20,000	53	26,500
\$7 First Preferred shares	480	21	10,100	19 ⁷ / ₈	9,300
\$6 First Preferred shares	387	15	5,800	15	5,800
\$7 Second Preferred shares	2,655	12	31,900	9 ¹ / ₄	24,900
Common shares	1,850	10	18,500	3 ¹ / ₂	6,500
Warrants shares	6,874	7	48,100	1	6,900

By the end of 1938, as the table indicates, a good part of the absurdity had been corrected.

Some Holding Companies Not Guilty of Excessive Pyramiding.

To avoid creating a false impression, we must point out that, although pyramiding is usually effected by means of holding companies, it does not follow that all holding companies are created for this purpose and are therefore reprehensible. The holding company is often utilized for entirely legitimate purposes, *e.g.*, to permit unified and economical operations of

separate units, to diversify investment and risk and to gain certain technical advantages of flexibility and convenience. Many sound and important enterprises are in holding company form.

Examples: United States Steel Corporation is entirely a holding company; although originally there was some element of pyramiding in its capital set-up, this defect disappeared in later years. American Telephone and Telegraph Company is preponderantly a holding company, but its financial structure has never been subject to serious criticism. General Motors Corporation is largely a holding company.

A holding-company exhibit must therefore be considered on its merits. American Light and Traction Company is a typical example of the holding company organized entirely for legitimate purposes. On the other hand the acquisition of control of this enterprise by United Light and Railways Company (Del.) must be regarded as a pyramiding move on the part of the United Light and Power interests.

Speculative Capital Structure May Be Created in Other Ways.

It may be pointed out also that a speculative capital structure can be created without the use of a holding company.

Examples: The Maytag Company recapitalization, discussed in an earlier chapter, yielded results usually attained by the formation of a holding company and the sale of its senior securities. In the case of Continental Baking Corporation—to cite another example—the holding company form was not an essential part of the pyramided result there attained. The speculative structure was due entirely to the creation of large preferred issues by the parent company, and it would still have existed if Continental Baking had acquired all its properties directly, eliminating its subsidiaries. (As it happened, in 1938 this company took steps to acquire the assets of its chief subsidiaries, thus largely eliminating the holding-company form but retaining the speculative capital structure.)

Legislative Restraints on Pyramiding. So spectacular were the disastrous effects of the public-utility pyramiding of the 1920's that Congress was moved to drastic action. The Public Utility Holding Company Act of 1935 includes the so-called "death sentence" for many of the existing systems, requiring them ultimately to simplify their capital structures and to dispose of subsidiaries operating in noncontiguous territory. Formation of new pyramids is effectively blocked by requiring Commission

Limitation upon Comparison of Speculatively and Conservatively Capitalized Companies in the Same Field. The analyst must beware of trying to draw conclusions as to the relative attractiveness of two railroad common stocks when one is speculatively and the other is conservatively capitalized. Two such issues will respond quite differently to changes for the better or the worse, so that an advantage possessed by one of them under current conditions may readily be lost if conditions should change.

Example: The example shown on p. 681 illustrates in a twofold fashion the fallacy of comparing a conservatively capitalized with a speculatively capitalized common stock. In 1922 the earnings of Union Pacific common were nearly four times as high in relation to market price as were those of Rock Island common. A conclusion that Union Pacific was “cheaper,” based on these figures, would have been fallacious, because the relative capitalization structures were so different as to make the two companies noncomparable. This fact is shown graphically by the much larger expansion of the earnings and the market price of Rock Island common that accompanied the moderate rise in gross business during the five years following.

The situation in 1927 was substantially the opposite. At that time Rock Island common was earning proportionately more than Union Pacific common. But it would have been equally fallacious to conclude that Rock Island common was “intrinsically cheaper.” The speculative capitalization structure of the latter road made it highly vulnerable to unfavorable development, so that it was unable to withstand the post-1929 depression.

Other Illustrations in Appendix. The practical approach to comparative analysis of railroad stocks (and bonds) may best be illustrated by the reproduction of several such comparisons made by one of the authors a number of years ago and published as part of the service rendered to clients by a New York Stock Exchange firm. These will be found in Appendix Note 66 on accompanying CD. It will be observed that the comparisons were made between roads in approximately the same class as regards capitalization structure, with the exception of the comparison between Atchison and New York Central, in which instance special reference was made to the greater sensitivity of New York Central to changes in either direction.

COMPARISON OF UNION PACIFIC AND ROCK ISLAND COMMON STOCKS

Item	Union Pacific R.R.	Chicago, Rock Island, & Pacific Ry.
A. Showing the effect of general improvement:		
Average price of common, 1922	140	40
Earned per share, 1922	\$12.76	\$0.96
% earned on market price, 1922	9.1%	2.4%
Fixed charges and preferred dividends earned, 1922	2.39 times	1.05 times
Ratio of gross to market value of common, 1922	62%	419%
Increase in gross, 1927 over 1922	5.7%	12.9%
Earned per share of common, 1927	\$16.05	\$12.08
Increase in earnings on common, 1927 over 1922	26%	1,158%
Average price of common, 1927	179	92
Increase in average price, 1927 over 1922	28%	130%
B. Showing the effect of a general decline in business:		
Earned on average price, 1927	9.0%	13.1%
Fixed charges and preferred dividends earned, 1927	2.64 times	1.58 times
Ratio of gross to market value of common, 1927	51%	204%
Decrease in gross, 1933 below 1927	46%	54%
Earned on common, 1933	\$7.88	\$20.40(d)
Decrease in earnings for common, 1933 below 1927	51%	269%
Average price of common, 1933	97	6
Decrease in average price, 1933 below 1927	46%	93%

Note: In June 1933 trustees in bankruptcy were appointed for the Rock Island.

FORM II. PUBLIC-UTILITY COMPARISON

The public-utility comparison form is practically the same as that for railroads. The only changes are the following: Fixed charges (as mentioned in line 1 and elsewhere) should include subsidiary-preferred dividends. Line 2 should be called "Funded debt and subsidiary preferred stock," and these should be taken from the balance sheet. Items 22 and 22 I.P., relating to net deductions, are not needed. Item 10 becomes "ratio of depreciation to gross." An item, 10M, may be included to show "ratio of maintenance to gross" for the companies which publish this information.

Our observations regarding the use of the railroad comparison apply as well to the public-utility comparison. Variations in the depreciation rate are fully as important as variations in the railroad maintenance ratios. When a wide difference appears, it should not be taken for granted that one property is unduly conservative or the other not conservative enough, but a *presumption* to this effect does arise, and the question should be investigated as thoroughly as possible. A statistical indication that one utility stock is more attractive than another should not be acted upon until (among other qualitative matters) some study has been made of the rate situation and the relative prospects for favorable or unfavorable changes therein. In view of experience since 1933, careful attention should also be given to the dangers of municipal or federal competition.

FORM III. INDUSTRIAL COMPARISON (FOR COMPANIES IN THE SAME FIELD)

Since this form differs in numerous respects from the two preceding, it is given in full herewith:

A. Capitalization:

1. Bonds at par.
2. Preferred stock at market value
(number of shares \times market price).
3. Common stock at market value
(number of shares \times market price).
4. Total capitalization.
5. Ratio of bonds to capitalization.
6. Ratio of aggregate market value of preferred to capitalization.
7. Ratio of aggregate market value of common to capitalization.

B. Income Account (most recent year):

8. Gross sales.
9. Depreciation.
10. Net available for bond interest.
11. Bond interest.
12. Preferred dividend requirements.
13. Balance for common.
14. Margin of profit (ratio of 10 to 8).
15. % earned on total capitalization (ratio of 10 to 4).

C. Calculations:

16. Number of times interest charges earned.
16. I.P. Number of times interest charges plus preferred dividends earned.
17. Earned on common, per share.
18. Earned on common, % of market price.
17. S.P. Earned on preferred, per share.
18. S.P. Earned on preferred, % of market price.
19. Ratio of gross to aggregate market value of common.
19. S.P. Ratio of gross to aggregate market value of preferred.

D. Seven-year average:

20. Number of times interest charges earned.
21. Earned on common stock per share.
22. Earned on common stock, % of current market price.
(20 I.P., 21 S.P. and 22 S.P.—Same calculation for preferred stock if wanted).

E. Trend figure:

23. Earned per share of common stock each year for past seven years (adjustments in number of shares outstanding to be made where necessary).
23. S.P. Same data for speculative preferred issues, if wanted.

F. Dividends:

24. Dividend rate on common.
25. Dividend yield on common.

24. P. Dividend rate on preferred.
 25. P. Dividend yield on preferred.
- G. Balance sheet:
26. Cash assets.
 27. Receivables (less reserves).
 28. Inventories (less proper reserves).
 29. Total current assets.
 30. Total current liabilities.
 30. N. Notes Payable (Including "Bank Loans" and "Bills Payable")
 31. Net current assets.
 32. Ratio of current assets to current liabilities.
 33. Ratio of inventory to sales.
 34. Ratio of receivables to sales.
 35. Net tangible assets available for total capitalization.
 36. Cash-asset-value of common per share (deducting all prior obligations).
 37. Net-current-asset-value of common per share (deducting all prior obligations).
 38. Net-tangible-asset-value of common per share (deducting all prior obligations).
- (36 S.P., 37 S.P., 38 S.P.—Same data for speculative preferred issues, if wanted).
- H. Supplementary data (when available):
1. Physical output:
Number of units; receipts per unit; cost per unit; profit per unit; total capitalization per unit; common stock valuation per unit.
 2. Miscellaneous:
For example: number of stores operated; sales per store; profit per store; ore reserves; life of mine at current (or average) rate of production.

Observations on the Industrial Comparison. Some remarks regarding the use of this suggested form may be helpful. The net earnings figure must be corrected for any known distortions or omissions, including adjustments for undistributed earnings or losses of subsidiaries. If it appears to be misleading and cannot be adequately corrected, it should not be used as a basis of comparisons. (Inferences drawn from unreliable figures must themselves be unreliable.) No attempt should be

made to subject the depreciation figures to exact comparisons; they are useful only in disclosing wide and obvious disparities in the rates used. The calculation of bond-interest-coverage is subject to the qualification discussed in Chap. 17, with respect to companies that may have important rental obligations equivalent to interest charges.

Whereas the percentage earned on the market price of the common (item 18) is a leading figure in all comparisons, almost equal attention must be given to item 15, showing the percentage earned on total capitalization. These figures, together with items 7 and 19 (ratio of aggregate market value of common stock to sales and to capitalization), will indicate the part played by conservative or speculative capitalization structures among the companies compared. (The theory of capitalization structure was considered in Chap. 40.)

As a matter of practical procedure it is not safe to rely upon the fact that the earnings ratio for the common stock (item 18) is higher than the average for the industry, unless the percentage earned on the total capitalization (item 15) is also higher. Furthermore, if the company with the poorer earnings exhibit shows much larger sales-per-dollar-of-common-stock (item 19), it may have better speculative possibilities in the event of general business improvement.

The balance-sheet computations do not have primary significance unless they indicate either definite financial weakness or a substantial excess of current-asset-value over the market price. The division of importance as between the current results, the seven-year average and the trend is something entirely for the analyst's judgment to decide. Naturally, he will have the more confidence in any suggested conclusion if it is confirmed on each of these counts.

Example of the Use of Standard Forms. An example of the use of the standard form to reach a conclusion concerning comparative values should be of interest. A survey of the common stocks of the listed steel producers in July 1938 indicated that Continental Steel had made a better exhibit than the average, whereas Granite City Steel had shown much smaller earning power. The two companies operated to some extent in the same branches of the steel industry; they were very similar in size, and the price of their common stocks was identical. In the tabulation presented on page 666 we supply comparative figures for these two enterprises, omitting some of the items on our standard form as immaterial to this analysis.

Comments on the Comparison. The use of five-year average figures for each item, presented along with those of the most recent twelve months, is suggested here because the subnormal business conditions in the year ended June 30, 1938 made it inadvisable to lay too great emphasis on the results for this single period. Granite City reports on calendar-year basis, whereas Continental used both a June 30 and a December 31 fiscal year during 1934–1938. However, the availability of quarterly or semiannual figures makes it a simple matter for the analyst to construct his average and 12 months' figures to end in the middle of the year.

Analysis of the data reveals only one point of superiority for Granite City Steel—the smaller amount of senior securities. But even this is not necessarily an advantage, since the relatively fewer shares of Continental common make them more sensitive to favorable as well as unfavorable developments. The exhibit for the June 1938 year, and five-year average, show a statistical superiority for Continental on each of the following important points:

- Earnings on market price of common stock.
- Earnings on total capitalization.
- Ratio of gross to market value of common.
- Margin of profit.
- Depreciation in relation to plant account.
- Working-capital position.
- Tangible asset values.
- Dividend return.
- Trend of earnings.

If the comparison is carried back prior to 1934, Granite City is found to have enjoyed a marked advantage in the depression years from mid-1930 to mid-1933. During this time it earned and paid dividends while Continental Steel was reporting moderate losses. It is curious to observe that in the more recent recession the tables were exactly turned, and Continental Steel did very well while Granite City fared badly. Obviously the 1937–1938 results would command more attention than those in the longer past. Nevertheless, the thorough analyst would endeavor to learn as much as possible about the basic reasons underlying the change in the relative performance of the two companies.

Study of Qualitative Factors Also Necessary. Our last observation leads to the more general remark that conclusions suggested by comparative tabulations of this sort should not be accepted until careful thought has been given to the qualitative factors. When one issue seems to be selling much too low on the basis of the exhibit in relation to that of another in the same field, there may be adequate reasons for this disparity that the statistics do not disclose. Among such valid reasons may be a definitely poorer outlook or a questionable management. A lower dividend return for a common stock should not ordinarily be considered as a strong offsetting factor, since the dividend is usually adjusted to the earning power within a reasonable time.

Although overconservative dividend policies are sometimes followed for a considerable period (a subject referred to in Chap. 29), there is a well-defined tendency even in these cases for the market price to reflect the earning power sooner or later.

Relative popularity and relative market activity are two elements not connected with intrinsic value that nevertheless exert a powerful and often a continuing effect upon the market quotation. The analyst must give these factors respectful heed, but his work would be stultified if he always favored the more active and the more popular issue.

The recommendation of an exchange of one security for another seems to involve a greater personal accountability on the part of the analyst than the selection of an issue for original purchase. The reason is that holders of securities for investment are loath to make changes, and thus they are particularly irritated if the subsequent market action makes the move appear to have been unwise. Speculative holders will naturally gage all advice by the test of market results—usually immediate results. Bearing these human-nature factors in mind, the analyst must avoid suggesting common-stock exchanges to speculators (except possibly if accompanied by an emphatic disclaimer of responsibility for subsequent market action), and he must hesitate to suggest such exchanges to holders for investment unless the statistical superiority of the issue recommended is quite impressive. As an arbitrary rule, we might say that there should be good reason to believe that by making the exchange the investor would be getting at least 50% more for his money.

Variations in Homogeneity Affect the Values of Comparative Analysis. The dependability of industrial comparisons will vary with

COMPARISON OF CONTINENTAL STEEL AND GRANITE CITY STEEL
(000 OMITTED, EXCEPT THOSE PER SHARE)

Item	Continental Steel		Granite City Steel	
Market price of common, July 1938	17		17	
1. Bonds at par	\$1,202		\$1,618	
2. Preferred stock at market	2,450			
3. Common stock at market	3,410		6,494	
4. Total capitalization	7,062		8,112	
5. Ratio of common to total capitalization	48.3%		80.0%	
	Average of 5 years ended 6/30/38	Year ended 6/30/38	Average of 5 years ended 6/30/38	Year ended 6/30/38
8. Gross sales	\$15,049	\$13,989	\$8,715	\$8,554
9. Depreciation	500	445	390	459
10. Net available for bond interest	704	559	336	287(d)
11. Bond interest	81	67	(Est.) 18	(Est.) 54
12. Preferred dividends	179	171		
13. Balance for common	444	321	318	341(d)
14. Margin of profit	4.7%	4.0%	3.9%	(def.)
15. % earned on total capitalization	10.0	7.9%	4.1%	(def.)
16. Interest charges earned	8.7 times	8.3 times	18.7 times	(def.)
17. Earned on common, per share	\$2.29	\$1.60	\$1.20	\$0.89(d)
18. Earned on common, % of market price	13.5	9.4	7.1	(d)
19. Ratio of gross to market value of common	441.5%	409.8%	134.3%	131.8%
Trend figures:				
23. Earned per share by years:				
Year ended June 30, 1938	\$1.60		\$0.89(d)	
Year ended June 30, 1937	3.83	1.31		
Year ended June 30, 1936	2.67		1.49	
Year ended June 30, 1935	1.69		1.45	
Year ended June 30, 1934	1.66		2.65	
Dividends:				
24. Dividend rate on common		\$1.00		None
25. Dividend yield on common		5.9%		
Financial position (dates):		6/30/38		12/31/37
29. Total current assets		\$6,467		\$4,179
30. Total current liabilities		1,198		1,164
31. Net current assets		5,269		3,015
35. Net tangible assets for total capitalization		13,498		13,556

the nature of the industry considered. The basic question, of course, is whether future developments are likely to affect all the companies in the group similarly or dissimilarly. If similarly, then substantial weight may be accorded to the relative performance in the past, as shown by the statistical exhibit. An industrial group of this type may be called "homogeneous." But, if the individual companies in the field are likely to respond quite variously to new conditions, then the relative showing must be regarded as a much less reliable guide. A group of this kind may be termed "heterogeneous."

With certain exceptions for traffic and geographical variations, *e.g.*, in particular, the Pocohantas soft-coal carriers, the railroads must be considered a highly homogeneous group. The same is true of the larger light, heat and power utilities. In the industrial field the best examples of homogeneous groups are afforded by the producers of raw materials and of other standardized products in which the trade name is a minor factor. These would include producers of sugar, coal, metals, steel products, cement, cotton print cloths, etc. The larger oil companies may be considered as fairly homogeneous; the smaller concerns are not well suited to comparison because they are subject to sudden important changes in production, reserves and relative price received. The larger baking, dairy and packing companies fall into fairly homogeneous groups. The same is true of the larger chain-store enterprises when compared with other units in the same subgroups, *e.g.*, grocery, five-and-ten-cent, restaurant, etc. Department stores are less homogeneous, but comparisons in this field are by no means far-fetched.

Makers of manufactured goods sold under advertised trade-marks must generally be regarded as belonging to heterogeneous groups. In these fields one concern frequently prospers at the expense of its competitors, so that the units in the industry do not improve or decline together. Among automobile manufactures, for example, there have been continuous and pronounced variations in relative standing. Producers of all the various classes of machinery and equipment are subject to somewhat the same conditions. This is true also of the proprietary drug manufacturers. Intermediate positions from this point of view are occupied by such groups as the larger makers of tires, of tobacco products, of shoes, wherein changes of relative position are not so frequent.²

² But significant changes do occur, of course. Note, for example, the phenomenal growth of Philip Morris, relative to its large competitors, the somewhat less spectacular development of

The analyst must be most cautious about drawing comparative conclusions from the statistical data when dealing with companies in a heterogeneous group. No doubt preference may properly be accorded in these fields to the companies making the best quantitative showing (if not offset by known qualitative factors)—for this basis of selection would seem sounder than any other—but the analyst and the investor should be fully aware that such superiority may prove evanescent. As a general rule, the less homogeneous the group the more attention must be paid to the qualitative factors in making comparisons.

More General Limitations on the Value of Comparative Analysis. It may be well once again to caution the student against being deluded by the mathematical exactitude of his comparative tables into believing that their indicated conclusions are equally exact. We have mentioned the need of considering qualitative factors and of allowing for lack of homogeneity. But beyond these points lie all the various obstacles to the success of the analyst that we presented in some detail in our first chapter. The technique of comparative analysis may lessen some of the hazards of his work, but it can never exempt him from the vicissitudes of the future or the stubbornness of the stock market itself or the consequences of his own failure—often unavoidable—to learn all the important facts. He must expect to appear wrong often and to be wrong on occasion; but with intelligence and prudence his work should yield better over-all results than the guesses or the superficial judgments of the typical stock buyer.

General Shoe and the exceptional comparative showing of Lee Tire, in the three fields mentioned. All three of these were relatively small enterprises.

Chapter 50

DISCREPANCIES BETWEEN PRICE AND VALUE

OUR EXPOSITION OF THE TECHNIQUE of security analysis has included many different examples of overvaluation and undervaluation. Evidently the processes by which the securities market arrives at its appraisals are frequently illogical and erroneous. These processes, as we pointed out in our first chapter, are not automatic or mechanical but psychological, for they go on in the minds of people who buy or sell. The mistakes of the market are thus the mistakes of groups or masses of individuals. Most of them can be traced to one or more of three basic causes: exaggeration, oversimplification or neglect.

In this chapter and the next we shall attempt a concise review of the various aberrations of the securities market. We shall approach the subject from the standpoint of the practical activities of the analyst, seeking in each case to determine the extent to which it offers an opportunity for profitable action on his part. This inquiry will thus constitute an amplification of our early chapter on the scope and limitations of security analysis, drawing upon the material developed in the succeeding discussions, to which a number of references will be made.

General Procedure of the Analyst. Since we have emphasized that analysis will lead to a positive conclusion only in the exceptional case, it follows that many securities must be examined before one is found that has real possibilities for the analyst. By what practical means does he proceed to make his discoveries? Mainly by hard and systematic work. There are two broad methods that he may follow. The first consists of a series of comparative analyses by industrial groups along the lines described in the previous chapter. Such studies will give him a fair idea of the standard or usual characteristics of each group and also point out those companies which deviate widely from the modal exhibit. If, for example, he discovers

that a certain steel common stock has been earning about twice as much on its market price as the industry as a whole, he has a clue to work on—or rather a suggestion to be pursued by dint of a thoroughgoing investigation of all the important qualitative and quantitative factors relating to the enterprise.

The same type of methodical inquiry may be applied to the field of bonds and preferred stocks. The wide area of receivership railroad bonds can best be explored by means of a comparative analysis of the showing of the bonds of roughly the same rank issued by, say, a dozen of the major carriers in trusteeship. Or a large number of public-utility preferred stocks could be listed according to: (1) their over-all dividend and interest coverage, (2) their stock-value ratio and (3) their price and yield. Such a simple grouping might indicate a few issues that either were well secured and returned more than the average or else were clearly selling too high in view of their inadequate statistical protection. And so on.

The second general method consists in scrutinizing corporate reports as they make their appearance and relating their showing to the market price of their bonds or stocks. These reports can be seen—in summary form, at least—in various daily papers; a more comprehensive presentation can be found in the daily corporation-report sheets of the financial services or weekly in the *Commercial and Financial Chronicle*. A quick glance at a hundred of such reports may reveal between five and ten that look interesting enough from the earnings or current-asset standpoint to warrant more intensive study.

Can Cyclical Swings of Prices Be Exploited? The best understood disparities between price and value are those which accompany the recurrent broad swings of the market through boom and depression. It is a mere truism that stocks sell too high in a bull market and too low in a bear market. For at bottom this is simply equivalent to saying that any upward or downward movement of prices must finally reach a limit, and since prices do not remain at such limits (or at any other level) permanently, it must turn out in retrospect that prices will have advanced or declined too far.

Can the analyst exploit successfully the repeated exaggerations of the general market? Experience suggests that a procedure somewhat like the following should turn out to be reasonably satisfactory:

1. Select a diversified list of leading common stocks, *e.g.*, those in the “Dow-Jones Industrial Average.”

2. Determine an indicated “normal” value for this group by applying a suitable multiplier to average earnings. The multiplier might be equivalent to capitalizing the earnings at, say, twice the current interest rate on highest grade industrial bonds. The period for averaging earnings would ordinarily be seven to ten years, but exceptional conditions such as occurred in 1931–1933 might suggest a different method, *e.g.*, basing the average on the period beginning in 1934, when operating in 1939 or later.

3. Make composite purchases of the list when the shares can be bought at a substantial discount from normal value, say, at $\frac{2}{3}$ such value. Or purchases may be made on a scale downwards, beginning say, at 80% of normal value.

4. Sell out such purchases when a price is reached substantially above normal value, say, $\frac{1}{3}$ higher, or from 20% to 50% higher on a scale basis.

This was the general scheme of operations developed by Roger Babson many years ago. It yielded quite satisfactory results prior to 1925. But—as we pointed out in Chap. 37—during the 1921–1933 cycle (measuring from low point to low point) it would have called for purchasing during 1921, selling out probably in 1926, thus requiring complete abstinence from the market during the great boom of 1927–1929, and repurchasing in 1931, to be followed by a severe shrinkage in market values. A program of this character would have made far too heavy demands upon human fortitude.

The behavior of the market since 1933 has offered difficulties of a different sort in applying these mechanical formulas—particularly in determining normal earnings from which to compute normal values. It is scarcely to be expected that an idea as basically simple as this one can be utilized with any high degree of accuracy in catching the broad market swings. But for those who realize its inherent limitations it may have considerable utility, for at least it is likely on the average to result in purchases at intrinsically attractive levels—which is more than half the battle in common-stock investment.

“Catching the Swings” on a Marginal Basis Impracticable. From the ordinary speculative standpoint, involving purchases on margin and short sales, this method of operation must be set down as impracticable. The outright owner can afford to buy too soon and to sell too soon. In fact he must expect to do both and to see the market decline farther after he buys and advance farther after he sells out. But the margin trader is necessarily concerned with immediate results; he swims with the

tide, hoping to gage the exact moment when the tide will turn and to reverse his stroke the moment before. In this he rarely succeeds, so that his typical experience is temporary success ending in complete disaster. It is the essential character of the speculator that he buys because he thinks stocks are going up not because they are cheap, and conversely when he sells. Hence there is a fundamental cleavage of viewpoint between the speculator and the securities analyst, which militates strongly against any enduringly satisfactory association between them.

Bond prices tend undoubtedly to swing through cycles in somewhat the same way as stocks, and it is frequently suggested that bond investors follow the policy of selling their holdings near the top of these cycles and repurchasing them near the bottom. We are doubtful if this can be done with satisfactory results in the typical case. There are no well-defined standards as to when high-grade bond prices are cheap or dear corresponding to the earnings-ratio test for common stocks, and the operations have to be guided chiefly by a technique of gaging market moves that seems rather far removed from "investment." The loss of interest on funds between the time of sale and repurchase is a strong debit factor, and in our opinion the net advantage is not sufficient to warrant incurring the psychological dangers that inhere in any placing of emphasis by the investor upon market movements.

Opportunities in "Secondary" or Little-known Issues. Returning to common stocks, although overvaluation or undervaluation of leading issues occurs only at certain points in the stock-market cycle, the large field of "nonrepresentative" or "secondary" issues is likely to yield instances of undervaluation at all times. When the market leaders are cheap, some of the less prominent common stocks are likely to be a good deal cheaper. During 1932-1933, for example, stocks such as Plymouth Cordage, Pepperell Manufacturing, American Laundry Machinery and many others, sold at unbelievably low prices in relation to their past records and current financial exhibits. It is probably a matter for individual preference whether the investor should purchase an outstanding issue like General Motors at about 50% of its conservative valuation or a less prominent stock like Pepperell at about 25% of such value.

The Impermanence of Leadership. The composition of the market-leader group has varied greatly from year to year, especially in view of the recent shift of attention from past performance to assumed prospects. If

we examine the list during the decline of 1937–1938, we shall find quite a number of once outstanding issues that sold at surprisingly low prices in relation to their statistical exhibits.

Example: A startling example of this sort is provided by Great Atlantic and Pacific Tea Company common, which in 1929 sold as high as 494 and in 1938 as low as 36. Salient data on this issue are as follows:

Year ¹	Sales (000 omitted)	Net (000 omitted)	Earned per share of common	Dividend paid on common	Price range of common
1938	\$ 878,972	\$15,834	\$ 6.71	\$4.00	72–36
1937	881,703	9,119	3.50	6.25	117 ¹ / ₂ –45 ¹ / ₄
1936	907,371	17,085	7.31	7.00	130 ¹ / ₂ –110 ¹ / ₂
1935	872,244	16,593	7.08	7.00	140–121
1934	842,016	16,709	7.13	7.00	150–122
1933	819,617	20,478	8.94	7.00	181 ¹ / ₂ –115
1932	863,048	22,733	10.02	7.00	168–103 ¹ / ₂
1931	1,008,325	29,793	13.40	6.50	260–130
1930	1,065,807	30,743	13.86	5.25	260–155
1929	1,053,693	26,220	11.77	4.50	494–162

¹ Year ended following Jan. 31, except price range.

The balance sheet of January 31, 1938, showed cash assets of 85 millions and net current assets of 134 millions. At the 1938 low prices, the preferred and common together were selling for 126 millions. Here, then, was a company whose spectacular growth was one of the great romances of American business, a company that was without doubt the largest retail enterprise in America and perhaps in the world, that had an uninterrupted record of earnings and dividends for many years—and yet was selling for less than its net current assets alone. Thus one of the outstanding businesses of the country was considered by Wall Street in 1938 to be worth less as a going concern than if it were liquidated. Why? First, because of chain-store tax threats; second, because of a recent decline in earnings; and, third, because the general market was depressed.

We doubt that a better illustration can be found of the real nature of the stock market, which does not aim to evaluate businesses with any exactitude but rather to express its likes and dislikes, its hopes and fears,