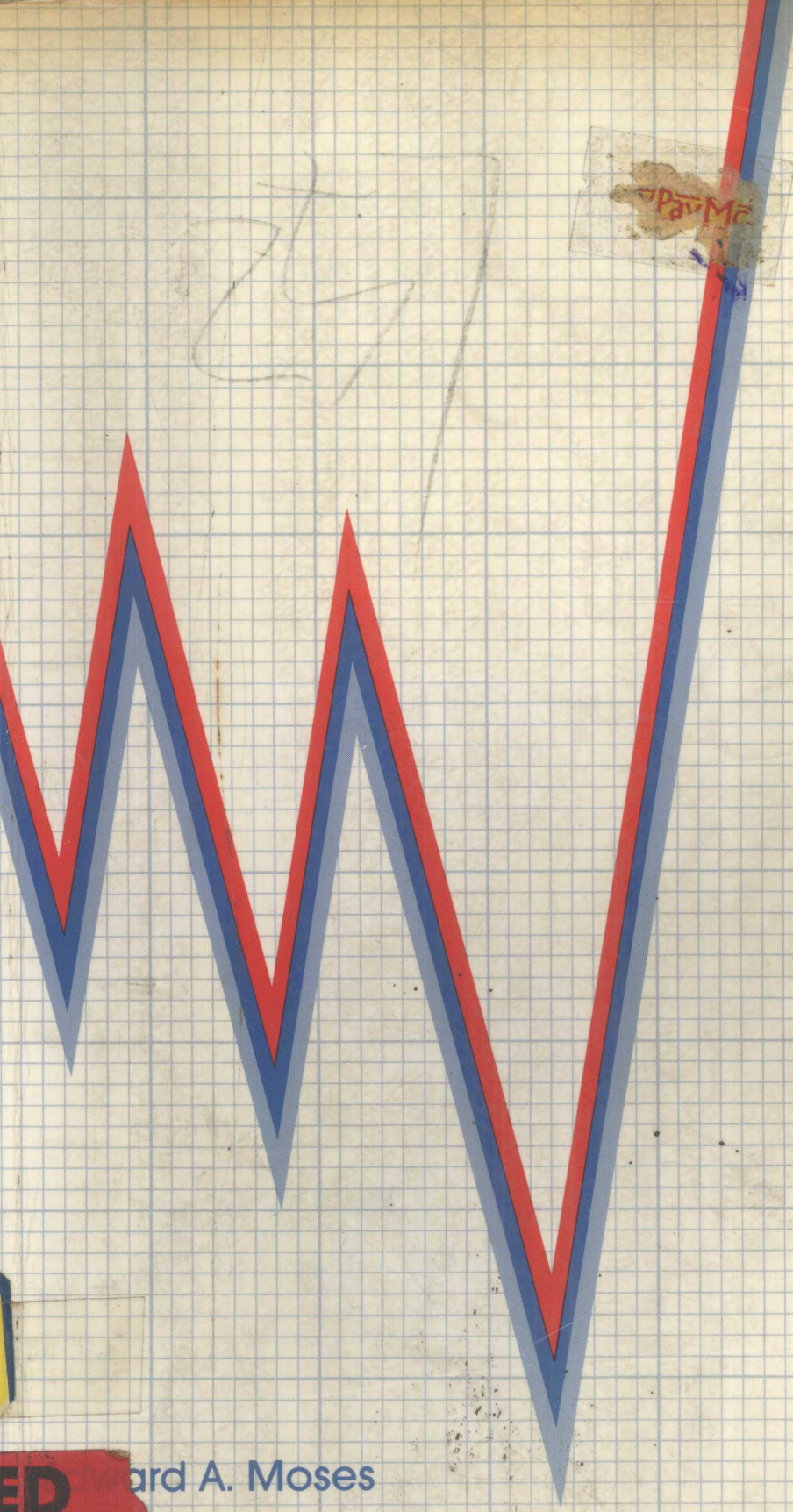


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Cases in

# INVESTMENTS



# CASES IN INVESTMENTS

**DR. EDWARD A. MOSES**

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## PREFACE

The use of cases in financial management courses has been a common practice for a number of years. Through these cases the student has been able to gain a greater understanding of the theories and concepts presented in the course as well as test his/her ability in applying tools and techniques to problems facing the financial manager. In recent years courses in investments have moved away from the purely descriptive approach to one that is more analytical and conceptual. In this respect courses in investments and financial management have followed similar paths. Surprisingly, the use of cases in investments courses has not become as widespread as in financial management courses.

It is my belief that the use of the case method in investments has not been widely employed because of the paucity of high-quality, timely investments cases that will complement the leading texts in the field. The principal aim of *Cases in Investments* is to fill this void.

The 38 cases in this book present investment situations that can be used to allow the students to relate theories and concepts to real-world situations. The diversity of cases within each part insures the casebook's compatibility with nearly all investments texts and allows instructors to select cases most appropriate for their courses whether they are at the undergraduate or graduate level. The cases center around specific topics (see subtitles in the Table of Contents) to allow for further coordination of textbook reading assignments and case selection. All of the cases are written from the viewpoint of an investor or advisor and directly involve the reader in the decision-making process. Questions are included at the end of each case to guide the student and provide for class discussion.

I am grateful to a number of people for making significant contributions to this casebook. The students who suffered through earlier versions of the cases deserve recognition. Their willingness to endure ambiguities and errors in earlier versions and their suggestions and perspectives is most appreciated. Additionally, I would like to thank three people who not only helped develop the casebook but also assisted in the class testing of the cases - John M. Cheney, of the University of Central Florida, for his contribution to the bond valuation cases, E. Theodore Veit, of the University of Central Florida, for his contribution to the financial statement analysis cases, and Arthur L. Schwartz, Jr., of California Polytechnic State University, for his contribution

to the equity valuation process cases and other investments cases. Others who have lent me their support, encouragement, and expertise include Dileep R. Mehta of Georgia State University and Lawrence J. Gitman of Wright State University.

A special note of thanks goes to Donald J. Thompson II of Georgia State University, Harry R. Kuniasky of Augusta College, and John M. Cheney and Wallace W. Reiff of the University of Central Florida for allowing me to include their excellent cases in this casebook.

I would also like to express my appreciation to David L. Koulish for his research assistance and Anabelle Frink and Elizabeth Geisler for their excellence in converting a handwritten manuscript into typescript. The College of Business Administration at the University of Central Florida provided me generous support in the writing and testing of the manuscript. The editorial staff of West Publishing Company has been most cooperative, and I would like to express my thanks to all who have worked on this book.

Finally, this book could have never been written without the support and encouragement of my wife, Susan, and my children, Lynne and Danny. Their sacrifices will always be cherished.

Edward A. Moses  
Orlando, Florida

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\_\_\_\_PART ONE\_\_\_\_

# **THE INVESTMENT ENVIRONMENT**

## FRED MORTON

Fred Morton, a chemist with a Ph.D., has been working for one of the world's largest integrated oil companies for two years. Before taking this position he taught chemistry in a state university for five years. Fred is thirty-three years old, married, and has two children, ages eight and ten. He has been able to accumulate some savings, owns adequate life insurance, and has a small amount of equity built up in his home. Fred's wife works full-time as a school librarian.

Fred's mother died recently, leaving him and his sister an estate valued at approximately \$500,000 after inheritance taxes. One-half of the estate is a small apartment complex in Chicago, and the other half comprises common stocks. When the estate was being divided Fred's sister expressed a strong desire to have the apartment complex. She was recently divorced and felt that, in addition to providing income, management of the apartment complex would occupy her time. Fred reluctantly agreed to accept the securities as his half of the inheritance.

In talking with the attorney for the estate, Fred indicated that he was completely ignorant about common stocks. He felt a need for expert advice about what to do with the inherited securities. The attorney suggested that he consult Professor Douglas Morris, a member of the finance faculty at a local university. Professor Morris taught investment courses at the university and had done consulting work for the attorney's firm in the past.

At their first meeting Professor Morris suggested that Fred had at least two alternatives for managing his inheritance. He could personally manage the assets, making all of the buy-and-sell decisions himself, or he could have the portfolio managed by a private investment counselor or the trust department of a bank. Professor Morris explained that, even with professional management, Fred could affect the buy-and-sell decision making process if he so desired. Professor Morris suggested that, as a first step,

Fred develop some understanding of the investment environment. To help Fred, Professor Morris offered to prepare a summary of the portfolio Fred had inherited from his mother.

To get this information, Professor Morris visited the local office of the brokerage firm that Fred's mother had used in making her stock transactions. The stockbroker, Mr. Milder, was very cooperative and provided Professor Morris with the necessary information. This information is shown in Table 1.1.

In his conversation with Professor Morris, Mr. Milder pointed out that Fred's mother had been an active investor in the stock market. An inveterate "tape watcher," she had spent at least a part of every business day in the brokerage office. He further indicated that Mrs. Morton had never placed market orders when buying or selling securities. Rather, she had always instructed him to place limit orders that were "good-till-cancelled" (GTC). She had never sold stocks short or bought stocks on margin.

According to Mr. Milder, Mrs. Morton always bought in round lots to avoid paying an odd-lot differential. After May 1, 1975, when all commission charges became negotiable, she continually threatened to take her business to a discount broker if Mr. Milder did not lower his commissions. As Mr. Milder wanted to keep the account, he tried to give Mrs. Morton a reduced commission charge on her trades. Realizing that he could not compete with the discount brokers' lower commissions, he tried to point out to Mrs. Morton the advantages of dealing with a large retail brokerage firm. Mrs. Morton countered that she was willing to give up some of those advantages to secure a 30 to 40 percent reduction in commission expenses.

## QUESTIONS

1. Describe in general terms the investment objectives that might be appropriate for Fred Morton. Is the portfolio shown in Table 1.1 consistent with these objectives?
2. What is the total expected dividend income in 1979 from the inherited portfolio? What is the expected dividend yield for the portfolio on current market value?
3. Briefly compare the characteristics of the New York Stock Exchange, American Stock Exchange, over-the-counter market, and regional exchanges.
4. Explain why Pabst Brewing is traded in the over-the-counter market while another brewer, Schlitz Brewing, is traded on the New York Stock Exchange.
5. What reasons might Mrs. Morton have had for placing limit orders that were open (GTC)? What other types of orders might she have placed?
6. Distinguish between trades involving round lots and odd lots. What is an odd-lot differential?
7. What is meant by buying on margin? Describe the procedure for selling a share of stock short.
8. What services could Mr. Milder's firm provide that might not be available from a discount brokerage firm?

TABLE 1.1

**Fred Morton**  
**Selected Portfolio Information**  
**As of 12/31/78**

No. Shares	Name	Cost Per Share	Market Price Per Share	Indicated Annual Cash Dividends Per Share	Market*
200	American Tel. & Tel.	\$ 42½	\$ 60½	\$ 4.60	NYS,Bo,Ci,MW,Ph,PS
630	Cessna Aircraft	5	18⅝	.80	NYS,Bo,Ph,PS
300	Charter Medical	20	19¾	Nil	ASE
200	Cox Broadcasting	36	55¾	.75	NYS
400	Crawford & Co.	7	12½	.575	OTC
206	Dart Industries	36	39⅞	1.60	NYS,Bo,MW,Ph,PS
400	EG&G Inc.	68	29	.60	NYS,Bo,MW,Ph
500	Fieldcrest Mills	19	25	2.00	NYS
300	General Motors	58¼	59⅞	6.00	NYS,Bo,Ci,MW,Ph,PS,TS
200	Genuine Parts	36	38⅞	1.10	NYS
600	Hilton Hotels	13¾	22⅜	1.00	NYS,Bo,MW,Ph,PS
100	IBM	344½	298½	13.76	NYS,Bo,Ci,MW,Ph,PS,MS,TS
300	Lanier Bus. Prod.	14	27	.50	NYS
200	Moore Corp., Ltd.	60½	27¼	1.32	OTC,MS,TS
200	Oxford Industries	8	9⅝	.60	NYS
300	Pabst Brewing	37¼	13¾	1.20	OTC
500	Pacific Pwr. & Light	22	19¾	1.92	NYS,Bo,Ci,Ph,PS
500	Philadelphia Electric	16	15½	1.80	NYS,Bo,Ci,MW,Ph,PS
200	Procter & Gamble	31½	88⅞	3.00	NYS,Bo,Ci,MW,Ph,PS
300	Purolator, Inc.	20	25	1.28	NYS,Bo,Ph
300	RCA Corp.	23⅝	26⅞	1.40	NYS,Bo,Ci,MW,Ph,PS
400	Schlitz (J) Brewing	18⅝	10	.40	NYS,Bo,MW
300	South Carolina E & G	19	17	1.62	NYS,Bo,Ci,Ph
200	Standard Oil of Cal.	36¾	46⅞	2.60	NYS,Bo,Ci,MW,Ph,PS
300	Upjohn Co.	19⅝	48⅞	1.52	NYS,Bo,Ci,MW,Ph,PS

\*The market abbreviations for the various exchanges are the same as those used in the December 31, 1978, Standard & Poor's *Stock Guide* and are defined as follows:

ASE - American  
Bo - Boston  
Ci - Cincinnati  
MS - Montreal  
MW - Midwest

NYS - New York  
PS - Pacific  
Ph - Philadelphia  
TS - Toronto  
OTC - "Over-the-Counter"

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## CASE 2

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### THE *TULSA TIMES RECORDER*

Henry Teaford, a brand-new business school graduate, was recently hired as an assistant to George Law, the business editor of the *Tulsa Times Recorder*. Henry's first job was to secure the information for the *Tulsa Times Recorder* Oil Index and write a short column describing the activities of the ten stocks composing the Index. A typical column is shown in Table 2.1.

In reality, Henry had to do very little work to prepare the column. A local brokerage firm telephoned the *Recorder* each afternoon with the closing calculations for the Index, the total number of shares traded for each of the Index stocks and any unusual activity occurring in these stocks. This process had been going on for over fifty years, and both the brokerage firm and the newspaper appeared satisfied with the arrangement.

As Henry had taken a course in investments while in college, he was familiar with the calculation procedures for the more popular market measures, such as the Dow Jones Averages and the Standard & Poor's Indexes. Upon being given this assignment, Henry had asked Mr. Law how the *Tulsa Times Recorder* Oil Index was calculated. Mr. Law did not know and suggested that Henry call Jack Gamble at the brokerage firm. Mr. Gamble reported that the Index was calculated in exactly the same manner as the Dow Jones Averages - all capitalization changes were handled on a divisor-adjusted basis. On December 31, 1978, the divisor for the Index stocks was 1.7358, and changes in the divisor occurred only with capitalization changes affecting ten percent or more of a firm's outstanding shares.

Henry recalled that his college professor had pointed out a number of weaknesses in the Dow Jones Averages and had seemed to prefer a value-weighted arithmetic

index, such as those calculated by the Standard & Poor's Corporation (S&P). In reviewing his notes from the investments class, Henry found the general formula for the S&P Industrial Index to be:

*S&P*

$$\frac{\sum_{i=1}^N (\text{current market price}_i \times \text{current outstanding shares}_i)}{\sum_{i=1}^N (1941-43 \text{ average market price}_i \times 1941-43 \text{ average outstanding shares}_i)} \times 10$$

*#1*

*hard to read that started w/ 10*

Henry recalled that a change in the denominator, or old base-market value, occurred only with a change in capitalization. The professor had given the class this formula for calculating the new base-market value:

*#2*

$$\text{old base-market value} \times \frac{\text{market value as of base date, reflecting the change in capitalization}}{\text{market value as of base date, before the change in capitalization}} = \text{new base-market value}$$

*he wants 37*

Henry decided to experiment with a new index of petroleum refining companies calculated in the same way as the S&P Industrial Index. The first thing he did was to expand the number of petroleum refining companies in the index from 10 to 30. The names of the 30 companies as well as the share prices and number of shares outstanding are shown in Table 2.2. Henry felt that if he used December 31, 1978, as the date for the original base market value and assigned the index a beginning value of 37 (the approximate average price of the 30 securities on that date), he would be able to produce a better measure of performance than the *Tulsa Times Recorder* Oil Index.

## QUESTIONS

1. What are the major arguments against the use of the *Tulsa Times Recorder* Oil Index as a measure of the performance of petroleum refining companies? What are some arguments in favor of the continued use of this performance measure?
2. Why did the *Tulsa Times Recorder* Oil Index divisor decline from its beginning value of 10 to 1.7358 by December 31, 1978?
3. What are the advantages and disadvantages of Henry's new index relative to the *Tulsa Times Recorder* Oil Index?
4. Assuming no changes in capitalization between December 31, 1978, and March 30, 1979, other than the delisting of Pacific Petroleum Ltd.'s stock, calculate the values for

the *Tulsa Times Recorder* Oil Index and Henry's proposed index on December 31, 1978, and March 30, 1979. Compare the percentage changes in the two performance measures.

TABLE 2.1

**The *Tulsa Times Recorder*  
Typical Oil Index Column**

OIL EQUITIES

UP 2.75

Oil stocks advanced 2.75 Thursday in heavier trading with six issues advancing, two declining, and two unchanged.

The *Tulsa Times Recorder* Oil Index closed at 254.64. Volume was 1,774,900 shares compared with 1,341,200 the previous session.

Mobil gained two points, closing at 71½, while Cities Service gained one point to 55¼.

Texaco traded 354,000 shares; Gulf, 373,700; Standard of California, 240,100; Standard of Indiana, 175,400; Exxon, 147,400; Phillips, 132,100; Continental, 131,100; Cities Service, 84,900; Atlantic Richfield, 74,100; and Mobil, 62,100.



TABLE 2.2

**The Tulsa Times Recorder  
Petroleum Refining Companies**

Company	Stock Price 12/31/78	No. Shares Outstanding 12/31/78 (000)	Stock Price 3/30/79
Amerada Hess Corp.	28 1/8	30,144	30 7/8
Ashland Oil Corp.	33 3/4	32,870	44
Atlantic Richfield <sup>1</sup>	56 7/8	110,945	61 1/2
Belco Petroleum Corp.	38 3/4	7,612	30 7/8
British Petroleum Co., Ltd.	18 1/4	386,500	24 3/4
Charter Co.	5 1/8	17,463	9 1/2
Cities Service Co. <sup>1</sup>	53 7/8	27,667	60 1/4
Clark Oil & Refining Corp.	16 1/2	7,110	22 1/2
Continental Oil Co. <sup>1</sup>	28 1/8	107,411	34 1/4
Exxon Corp. <sup>1</sup>	49 1/8	445,163	52 3/4
Gulf Oil Corp. <sup>1</sup>	23 3/8	195,000	26 1/4
Kerr-McGee Corp.	47 3/4	25,857	51
Marathon Oil Co.	54 3/4	30,243	63 3/8
Mobil Corp. <sup>1</sup>	69 3/8	105,980	74 3/8
Murphy Oil Corp.	44 3/8	12,417	46 3/8
Pacific Petroleum, Ltd. <sup>2</sup>	52 1/4	21,404	—
Pennzoil Co.	30 3/4	32,939	37 1/4
Phillips Petroleum Co. <sup>1</sup>	31 1/8	154,091	34 3/8
Quaker State Oil Refining	13 1/8	17,376	15 1/2
Royal Dutch Petroleum Co.	60 1/2	144,070	68 3/8
Shell Oil Co.	32 1/8	150,952	37 1/8
Standard Oil Co.(Calif.) <sup>1</sup>	46 7/8	170,687	47 5/8
Standard Oil Co.(Indiana) <sup>1</sup>	56 5/8	146,279	59 1/4
Standard Oil Co. (Ohio)	42 1/2	117,678	49 5/8
Sun Co.	42 1/2	51,572	47
Tesoro Petroleum Corp.	7 5/8	12,334	10 7/8
Texaco, Inc. <sup>1</sup>	23 7/8	271,454	25 5/8
Union Oil Co. of Calif.	56 7/8	43,957	64 1/4
United Refining Co.	20	1,588	25
Witco Chemical Corp.	20 3/4	8,671	23 3/4

<sup>1</sup> Included in the currently published *Tulsa Times Recorder* Oil Index. *old index*

<sup>2</sup> Trading in Pacific Petroleum, Ltd., was suspended by the New York Stock Exchange on March 13, 1979, as a result of a successful tender offer by Petro-Canada. As of that date, fewer than 600,000 of the company's 21,404,000 common shares remained in the hands of the public.

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## CASE 3

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### WALLY MORSE'S TAX PLANNING

Wally Morse is a very successful retail merchant in a small southern town. Wally has been interested in the stock market since he graduated from college, when a classmate's parents gave each of the 4,000 members of Wally's class one share of common stock. In the years immediately following his graduation he was quite a speculator in the stock market. This speculation has not proved profitable, and, as Wally nears middle age, he is becoming more conservative in his approach to investments.

William Nelson, Wally's stockbroker, called him on December 1, 1979, to suggest that he consider year-end portfolio changes. Nelson had first urged Wally to make portfolio revisions at the end of 1978 because of the recently passed 1978 Revenue Act. At the time Nelson had written to all of his customers outlining the relevant modifications in the rules on capital gains (see Table 3.1). Wally had hesitated to make the suggested portfolio revisions at that time because the various provisions of the 1978 Revenue Act became effective at staggered times, and he was confused about the tax consequences of the new law.

Wally feels he now has a better understanding of the tax law and has decided to examine his situation for possible portfolio changes. He estimates that his taxable income for 1979, without considering the net balance of profits and losses on the sale of investments, will be approximately \$52,000. He and his wife expect to file a joint return; the marginal tax rate on a joint return will be 49 percent.