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Business and Economics

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Massachusetts Institute of Technology
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ftp_nm *Fourth Edition*

ftp_su **Author Name**

ftp_af *Boston University*

Author Name

University of California, San Diego

Author Name

Boston college

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This book is dedicated to my students who inspire me.

—Author Name

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Career Connections Boxes

Ehics Boxes

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Brief Contents

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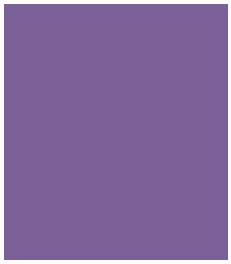

Author Name ***Boston University***

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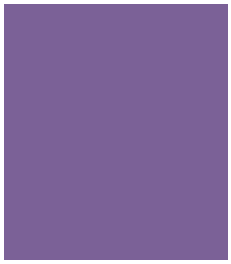
One dictionary's definition of speculation is the assumption of considerable business risk in obtaining commensurate gain. While this definition is fine linguistically it is vague if we cannot specify what is meant by considerable risk an commensurate gain process consists broadly speaking of tow tasks. One is security and market analysis, by which we assess the risk and expected return of the entire set of available investment vehicles. The second is construction of the optimal portfolio of assets where we identify the set of efficient portfolios those with the best risk return characteristics. We start our analysis of investments with the latter task and discuss the specifics of security industry process consists broadly speaking of tow tasks. One is security and market analysis, by which we assess the risk and expected return of the entire set of available investment vehicles. The second is construction of the optimal portfolio of assets security industry.



Author Name *University of California, San Diego*

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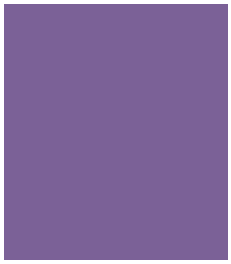

Author Name *University of Illinois, Urbana-Champaign*

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Preface

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Investment strategy for an individual or for an institution involves market timing, asset allocation, and security selection. Investors formulate strategies according to capital market expectations and investor specific circumstances such as tax obligations. Investment strategy also calls for portfolio monitoring performance evaluation and decisions on portfolio adjustment.

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fpr_hb

Second Level Head Always Stone Sans Semibold

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans. The funds that secure pension and life insurance plans are managed by institutional investors.

While there is no way to overcome them objective difficulties completely it is clear that to obtain reasonably reliable performance measures we need to:

fpr_ln

1. Maximize the number of observations by taking more frequent return readings.
2. Specify the exact makeup of the portfolio to obtain better estimates of the risk parameters at each observation period.

A simple example demonstrates the procedure. Assume the total market value of an initial portfolio is $300,000. Of that $90,000 is invested in the Ready Assets money market found a rise free asset. The remaining $210,000 is in risky securities, by $113,400 in the Vanguard market index fund called the Index Trust 500 Portfolio) and $96,600 in Shearson Lehamn's High Yield Bond Fund. The remaining $210,000 is in risky securities, by $113,400 in the Vanguard market index fund called the Index Trust 500 Portfolio) and $96,600 in Shearson Lehamn's High Yield.

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fpr_lu

Stephanie Bibb
Chicago State University

Julie Giles
DeVry–DuPage

Stephanie Bibb
Chicago State University

John McCreary
Western Carolina University

Teresa Palmer
Illinois State University

John McCreary
Western Carolina University

fpr_au

Author Name

Another Name

fak_tt

Acknowledgements

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We received help from many people as we prepared this book. An insightful group of reviewers commented on this and previous editions of this text. Their comments and suggestions improved the exposition of the material considerably. These reviewers all deserve special thanks for their contributions.

fak_lu

Stephanie Bibb
Chicago State University

Julie Giles
DeVry–DuPage

John McCreary
Western Carolina University

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Illinois State University

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Illinois State University

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Chicago State University

Julie Giles
DeVry–DuPage

John McCreary
Western Carolina University

Teresa Palmer
Illinois State University

For granting us permission to include many of their examination questions in the text, we are grateful to the Institute of Chartered Financial Analysts.

Much credit is also due to the development and production team: our special thanks goes to Michele Janicek, whose efforts and skill have contributed greatly to this and previous editions; Randall Adams, senior sponsoring editor; Jean Lou Hess, senior project manager; and Jennifer Hollingsworth, designer.

Finally, once again, our most important debts are to Judy, Hava, and Sheryl for their unflagging support.

fak_au

Author Name

Another Name

fwt_tt

A Note from the Authors

fwt_tx

We wrote the first edition of this textbook 10 years ago. It has been a decade of rapid and profound change in the investments industry. Among the notable developments in financial markets in this period decade are:

fwt_lb

- The coming of age of on-line and internet trading, as well as the more recent advent of trading via electronic communication networks
- The rapid and ongoing growth of derivative markets
- The increasing globalization of security markets

Of necessity, our text has evolved along with the financial markets. In this edition, we address many of the changes in the investment environment.

At the same time, many basic principles remain important. We continue to organize our book around one basic theme - that security markets are nearly efficient, meaning that most securities are usually priced appropriately given their risk and return attributes. There are few free lunches found in markets as competitive as the financial market. This simple observation is, nevertheless, remarkably powerful in its implications for the design of investment strategies; and our discussions of strategy are always guided by the implications of the efficient markets hypothesis. While the degree of market efficiency is, and will always be, a matter of debate, we hope our discussions throughout the book convey a good dose of healthy criticism concerning much conventional wisdom.

This text also continues to emphasize asset allocation more than most other books. We prefer this emphasis for two important reasons. First, it corresponds to the procedure that most individuals actually follow when building an investment portfolio. Typically, you start with all of your money in a bank account, only then considering how much to invest in something riskier that might offer a higher expected return. The logical step at this point is to consider other risky asset classes, such as stock, bonds, or real estate. This is an asset allocation decision. Second, in most cases the asset allocation choice is far more important than specific security-selection decisions in determining overall investment performance. Asset allocation is the primary determinant of the risk-return profile of the investment portfolio, and so it deserves primary attention in a study of investment policy.

Our book also focuses on investment analysis, which allows us to present the practical applications of investment theory, and to convey insights of practical value. In this edition of the text, we have introduced a systematic collection of Excel spreadsheets that give students tools to explore concepts more deeply than was previously possible. These spreadsheets are available through the World Wide Web, and provide a taste of the sophisticated analytic tools available to professional investors.

In our efforts to link theory to practice, we also have attempted to make our approach consistent with that of the Institute of Chartered Financial Analysts (ICFA). The ICFA administers an education and certification program to candidates for the title of Chartered Financial Analyst (CFA). The CFA curriculum represents the consensus of a committee of distinguished scholars and practitioners regarding the core of knowledge required by the investment professional.

This text will introduce you to the major issues currently of concern to all investors. It can give you the skills to conduct a sophisticated assessment of current issues and debates covered by both the popular media as well as more specialized finance journals. Whether you plan to become an investment professional, or simply a sophisticated individual investor, you will find these skills essential.

Author Name
Another Name

bpt_nm

Part 3

bpt_tt

Derivative Assets: Options and Futures

bpt_st

bpt_tx

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans. The funds that secure pension and life insurance plans are managed by institutional investors.

bpt_et

Outside of the "forced savings" plans however individuals can manage their own investment portfolios. As the populations grows richer more and more people face this decision.

Managing your own portfolio appears to be the lowest cost solution. Conceptually there is little difference between managing one's won investments and professional financial planning investment if at time we skip details. Our in with allies spirited jargon. If you develop this acquaintance now you should find our later discussions more productive.

bpt_lb

- Managing your own portfolio appears to be the lowest cost solution.

bpt_ln

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bpt_nm Part 3

bpt_tt bpt_st
Derivative Assets: Options and Futures

bpt_qd
There exists an intrinsic connection between the common good.

bpt_qdau
Pope John XIII, Roman Catholic Church bpt_quaf

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bpt_so

bpt_nm Part 3

bpt_tt Derivative Assets: bpt_st Options and Futures

bptop_lr

1. The Investment Process: Investor Objectives and Constraints
2. The Investment Process: Strategy and Policies
3. The Financial System and Institutions

Chapter 23 bch_nm

bch_tt Capital Asset Pricing

bchcs_tt This is a Vignette Title

bchcs_au **Vignette Author,** *Affiliation* bchcs_auaf

bchcs_tx Investment strategy for an individual or for an institution involves market timing, asset allocation, and security selection. Investors formulate strategies.

bchcs_lb
- Managing your own portfolio appears to be the lowest cost solution.
- Conceptually there is little difference between managing one's won investments and professional financial planning investment if at time we skip details.

The first aim of this chapter is to describe how the investment industry relates to investor objectives.

bchcs_ln 1. Managing your own portfolio appears to be the lowest cost solution.

The first aim of this chapter is to describe how the investment industry relates to investor objectives.

bchcs_lu
- Conceptually there is little difference between managing one's won investments and professional financial planning investment if at time we skip details.

bchcs_ha This is a First Level Head in a Vignette

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans.

bchcs_hb *This is a Second Level Head*

Outside of the "forced savings" plans however individuals can manage their own investment portfolios. As the populations grows richer more and more people face this decision.

bchcs_hc *This is a Third Level Head* Outside of the "forced savings" plans however individuals can manage their own investment portfolios.

bchcs_so **Source:** This is a source line.

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Chapter 23

bch_nm

bch_tt

Capital Asset Pricing

bopob_tt

After studying this chapter you should be able to:

bopob_ln

1. How the US government helps importers
2. The steps necessary to move goods across country borders.
3. How various import restrictions are used politically.
4. Means of reducing import taxes to remain competitive.
5. The basic instruments for foreign commerical payments.
6. The mechanics of export documents and their importance.

bch_tx

Investment strategy for an individual or for an institution involves market timing, asset allocation, and security selection. Investors formulate strategies according to capital market expectations and investor specific circumstances such as tax obligations. Investment strategy also calls for portfolio monitoring performance evaluation and decisions on portfolio adjustment.

The first aim of this chapter is to describe how the investment industry relates to investor objectives. We present some intuitive arguments that we explain more rigorously in later chapters. Don't be frustrated if at time we skip details. Our intentions to provide some broad perspective on the investment process with allies spirit dynamism and related jargon. If you develop this acquaintance now you should find our later discussions more productive.

bch_ha

This is a First Level Head

bch_hb

This is a Second Level Head

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans. The funds that secure pension and life insurance plans are managed by institutional investors.

Outside of the "forced savings" plans however individuals can manage their own investment portfolios. As the populations grows richer more and more people face this decision.

Chapter 23 bch_nm

bch_tt Capital Asset Pricing with a Runover: bch_st Subtitle Follows

bchop_tt

Chapter Outline

bchop_ha

Global Perspective: An Export Sale:From Trade Show to Installation

Export Restriction

bchop_hb

Second Level Head Here

Another Second Level Head

Import Restrictions

Terms of Sale

Getting Paid: Foreign Commercial Payments

Export Documents

Packing and Marking

Customs-Privileged Facilities

Logistics

The Foreign-Freight Forwarder

bopob_tt

Chapter Learning Objectives

bopob_tx

What you should learn from Chapter 15

bopob_lb

- How the US government helps importers
- The steps necessary to move goods across country borders.
- How various import restrictions are used politically.
- Means of reducing import taxes to remain competitive.
- The basic instruments for foreign commerical payments.
- The mechanics of export documents and their importance.
- The logistics and problems of the physical movement of goods.

Chapter 23 bch_nm

bch_tt Capital Asset Pricing: bch_st Arbitrage Pricing

bchop_qd There exists an intrinsic connection between the common good.

bchop_qdau *Pope John XIII, Roman Catholic Church* bchop_quaf

bchop_ct The photo caption on the chapter opener page will position underneath the photo.

bchop_so

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bchnt_tm

utility

bchnt_df

The measure of the welfare or satisfaction of an investor.

To formalize this notion of a risk penalty system we will assume that each investor can assign a welfare or **utility** score to competing investment portfolios according to the expected return and risk of those portfolios. The utility score is a means of ranking portfolios. Hersher utility values are assigned to portfolios with more attractive risk-return profiles. Portfolios receive higher utility scores for **higher excepted returns** and lower scores for higher volatility. ie + bf

Many scoring systems are legitimate. One reasonable function that is commonly employed by CFRAs and financial theorists assigns a portfolio with expected return E(r) and variance of returns the following utility score:

bch_eq

$$U = E(r) - (1/2)A \qquad (7.1)$$ bch_eqnm

where U is the utility value, and A is an index of the investors aversion to taking on risk. The factor of 1/2 is a scaling convention that has no economic significance.

This is the mean-standard deviation or equivalently **mean-variance (M-V) criterion.** It and be stated as investment A dominates investment and at least on inequality is twice.

In the expected return-standard deviation graph the preferred direction is northwest because in this direction we simultaneously *increase* the expected return and *decrease* the standard deviation of the rate of return. This means any portfolio that lies northwest of P is superior to P. ie + it

bch_lu

Maximize the number of observations by taking more frequent return readings.

Specify the exact makeup of the portfolio to obtain better estimates of the risk parameters at each observation period

To determine some of the points that appear on the indifference curve examine Table 7.1 which gives the utility values of several possible portfolios for and investor with A = 4. Each portfolio offers identical utility because the higher return portfolios also have high risk. Although in practice the exact indifference curves of various investors cannot be known, this sort of . ie + us

For any degree of risk aversion investors may be attracted as mush a=to portfolios with high risk and high expected returns as to other portfolios ***with lower risk*** but lower expected retuned. ie + ib

bch_fgnm

FIGURE 6.2

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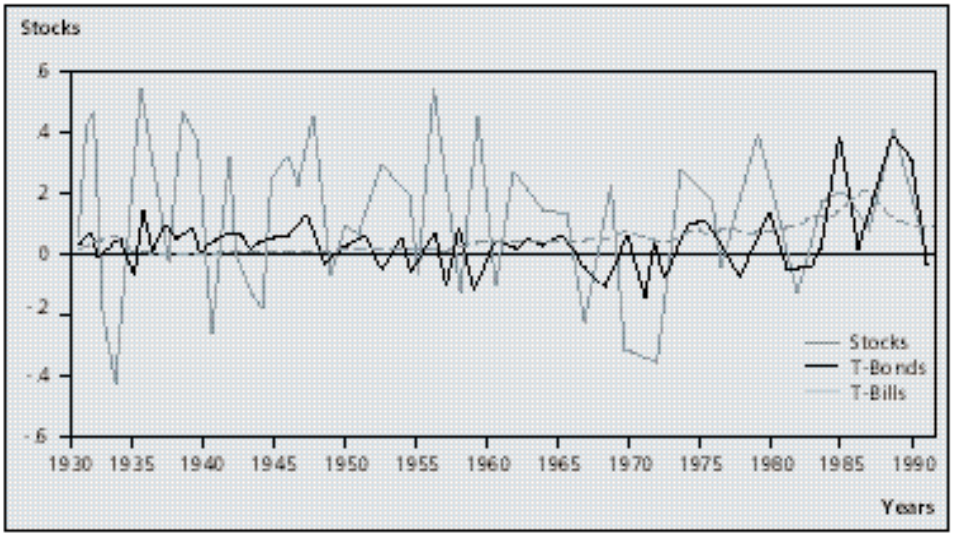
Rates of return of bills, bonds, and stocks, 1926 to 1990.

bch_fgso

Source: Cadbury Schweppes p.l.c., September 1984



bch_fgfn

*Somdett's after tax profits are given by .6(EBIT - $3.2 million).

†Somdett's equity is only $60 million.

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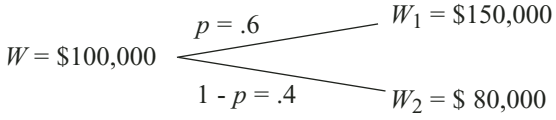
There exists an intrinsic connection between the common good.

Pope John XIII, Roman Catholic Church

The presence of risk means more than one outcome is possible. A simple prospect is an investment opportunity in which a certain initial wealth is placed at risk, and there are only tow possible outcomes. For the sake of simplicity it is useful to begin our analysis and elucidate some basic concepts using simple prospects.

Take as an example initial wealth, W, of $100,00 and assume tow possible results. WIth a probability of p = .6, the favorable outcome will occur, leading results:



Suppose an investor, Susan is offered an investment portfolio with a payoff in one year that is described by such a simple prospect. How can she evaluate this portfolio?

bch_lntx

1. The expected profit on the $100,000 investment portfolio is $22,000: 122,000 - 100,000. The variance, ø2, of the portfolio payoff is calculated as the expected value of the squared deviations of each possible outcome from the mean.

2. The standard deviation , ø, which is the square root of the variance is $34,292.86. Clearly, this is risky business. The standard deviation of the payoff is larger, much larger than the expected profit of $22,000. Whether the expected profit is LARGER THAN THE EXPECTED enough to justify such risk depends on the alternative portfolios.

ie + sc

Risk, Speculation, and Gambling

bch_hb_a

Speculators assume risk voluntarily and are often confused with gamblers who also seek risk. The business of investors is speculation so it is well to start by distinguishing them from gamblers.

bch_hc

This is a Third Level *Head*

ie + ro

One dictionary's definition of speculation is the assumption of considerable business risk in obtaining commensurate gain. While this definition is fine linguistically it is vague if we cannot specify what is meant by considerable risk an commensurate gain process consists broadly speaking of tow tasks. One is security and market analysis, by which we assess the risk and expected return of the entire set of available investment vehicles[2]. The second is construction of the optimal portfolio of assets where we identify the set of efficient portfolios those with the best risk return characteristics. The second is construction of the optimal portfolio$_2$ of assets where we identify the set of efficient portfolios those with the best risk return characteristics.The second is construction of the optimal portfolio of assets optimal portfolio of assets where we identify the set of efficient portfolios those with this is the

ie + su

ie + sb

bch_ct

This is a photo caption. They go on the side in the margin or below the photo if it is full width. © Credit.

bch_ct_a

The desirability of portfolios in quadrants II and III compared with P depends on the investor's risk aversion. Starting at P an increase in standard deviation lowers utility it must be offset by an adequate increase in expected return. Thus point Q in Figure 7.1 represents a portfolio that is a desirable to this investor as portfolio P.

To determine some of the points that appear on the indifference curve examine Table 7.1 which gives the utility values of several possible portfolios for and investor with A = 4. Each portfolio offers identical utility because the higher return portfolios also have high risk. Although in practice the exact indifference curves of various investors cannot be known, this sort of approach and take us along way in determining appropriate principles for portfolio selection strategy.

bch_eatt

Concept Check

What is the risk premium of Susan's risky portfolio in terms of rate of return rather than dollars? What is the standard deviation of the rate of return?

bch_eatx

bch_ealr

1. What is the risk premium of Susan's risky portfolio in terms of rate of return rather than dollars?
   b. What is the standard deviation of the rate of return?

bch_ha_a

1.3 Numbered First Level Head One Risky Asset and One Risk-Free Asset

bch_hb

The Risk Asset

Now we can talk about combining assets. We start buy considering investors holding a risky portfolio called P, along with some money market securities such as T-bills which we will refer to as the risk free asset F.

When we shift wealth form the risky portfolio (P) to the risk free asset we do no change the relative proportions of the various risky portfolio as a whole in favor of risk free assets. Rather we reduce the relative weight of the risky portfolio as a whole in favor of risk free assets.

bch_lbtt

This is a List Lead and All List Heads Look the Same

bch_lb

- The security market line
- The put call parity relationship
- The Black-Scholies option pricing model

bch_tbnm

TABLE 7.1

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This is a Table Title: Followed by Subtitle

bch_tbst

Impace of financial leverage on ROE

bch_tbnm_a

Source: Cadbury Schweppes p.l.c., September 1984

bch_tbso

bch_tbsh

bch_tbcn

bch_tbtx

bch_tbhs

Scenario	EBIT ($ millions)	Nodett Net Profits ($ millions)	Nodett ROE (%)	Somdett Net Profits ($ millions)	Somdett ROE (%)
Bad year	5	3	3	1.08	1.8
Normal year	10	6	6	4.08	6.8
Good year	15	9	9	7.08	11.8

Scenario	EBIT ($ millions)	Nodett Net Profits ($ millions)	Nodett ROE (%)	Somdett Net Profits ($ millions)	Somdett ROE (%)
Bad year	5	3	3	1.08	1.8
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bch_tbfn

*Somdett's after tax profits are given by .6(EBIT - $3.2 million).
†Somdett's equity is only $60 million.

bchba_au
Box Author, Affiliation
bchba_auaf

MARKETING EFFORTS TARGET INDIVIDUALS

New York–Just as money-market funds were the hot product in 1989, so stock index funds are quickly becoming the scene of this years biggest mutual fund marketing battle.

bchba_et

> Following the stellar performance of Vanguard Group's index funds both Dreyfus Corp and Fidelity Investments have weighted in with index funds of their own. In recent weeks both funds groups have come out with unmanaged portfolios of the stocks that make up the Standard & Poor's 500 stock index; these funds are designed to closely track the S & P 500's performance.

Investors are just waking up to the virtues of index investments which have already attracted about $250 billion form giant institutions. The oldest and largest of the index mutual founds, Vanguard Index Trust 500.

	Motorola Price	
	$70	$80
Value of portfolio A	$14,000	$16,000
Value of portfolio B	0	0
Vaule of portfolio C	14,688	14,688

As reported here earlier this year the investment success of Vanguards index funds was long ignored by Vanguard's competitors. Not any more. Both Dreyfus and Fidelity are now running full page advertisements as they seek to wrestle a share of the index fund business away form Vanguard.

bchba_hb

Marginal Product

As far as a mutual fund manager is concerned an index fud is a magical product says on analyst. It already has a performance record that of the index.

bchba_lu

> For years Vanguard has had a virtual strangle hold on the index fund market.
>
> It offers index funds that track a bond market index tow international stock indexes and tow small company stock indexes.

If Dreyfus and Fidelity thought that this year's index funds would match the popularity of last year's money market funds they have clearly been disappointed. Early in 1989 both Dreyfus and Fidelity brought out low cost money market funds jumping into an area previously simulated buy Vanguard. Dryfuss world wide dollar Fund has since pulled in $7.3 billion.Fidelity Spartan Money Market Fund has snagged 8.3 billion. Fidelity Spartan Money Market Fund has snagge. Standard & Poor's 500 stock index; these funds are designed to closely track the S & P 500's performance.

bchba_tx

EDUCATION PROBLEM

bchba_ha

They are jumping onto the index fund band wagon and they re trying to get some attention by waiving the fees says John Bogle Vanguard's chairman Fees are the only thing that distinguishes one money market fund from anther #When you get to and index fund fees are just one of the things that affect return. Only a moron would by a stock fund to avoids a 0.5 percent expenses ratio for two weeks or tow months. Apparently the marketplace is smarter than the fund sponsors.

bchba_lb

- For years Vanguard has had a virtual strangle hold on the index fund market.
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bchba_hc

Third Level Head As with its other funds Vanguard's edge in the index fund business comes form its extremely low annual expense ratios The 500 Portfolio charges just 0.2 percent of assets annually well below the 1.5 percent typically charged.

bchba_ln

1. To complete both Dreyfus and Fidelity are holding down expenses on their index funds.
2. Dreyfus is adsorbing all expenses until the line oft thy year or until the fund hits $100 million in assets which ever comes first. Fidelity has promised to keep its expenses at 0.28 percent of assets until May 1, 1991. If Dreyfus and Fidelity thought that this year's index funds would match the popularity of last year's money market funds they have clearly been disappointed.

bchba_so

Source: From Johnathan Clements, "Index Funds Emerge as Hot Turf of 1990," The Wall Street Journal May 18, 1990.

bchba_fn

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Investment strategy for an individual or for an institution involves market timing, asset allocation, and security selection. Investors formulate strategies according to capital market expectations and investor specific circumstances such as tax obligations. Investment strategy for an individual or for an institution involves market timing, asset allocation. Investment strategy for an individual or for an institution.

bch_fn

[1] This is a footnote and it positions at the bottom of the page.

bchbb_st

bchbb_tt

Box Style Two Title Location *This is a Subtitle* 1

bchbb_nm

bchbb_au

Box Author, Affiliation bchbb_auaf

bchbb_ha

MARKETING EFFORTS TARGET INDIVIDUALS

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bchbb_lu

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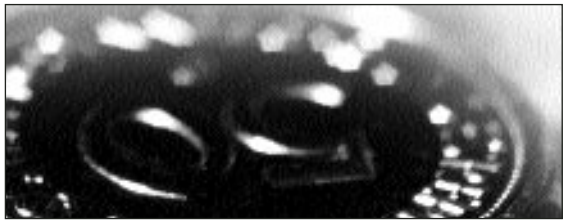

This is a photo caption. They go on below the photo if in the boxes. © Photodisc. bchbb_fgso

bchbb_fgct

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bchbb_fn

While there is no way to overcome them objective difficulties completely it is clear that to obtain reasonably reliable performance measures we need to:

bch_ln

1. Maximize the number of observations by taking more frequent return readings.
2. Specify the exact makeup of the portfolio to obtain better estimates of the risk parameters at each observation period.

bch_hd

Front-End Load A **front-end load** is a commission or sales charge paid when you purchase the shares. These charges typically fall between 4 percent and 8.5 percent and are used to pay brokers to sell the fund.

To be listed on NASDAQ a firm must satisfy one of two sets of criteria:

bch_lr

1. *a.* 350,000 publicly held shares.
   b. Market value of publicly held shares of $2 million.
   c. Minimums bid price of $3.
   d. Annual net income of $300,000 in either the last fiscal year or two of the last threeyears.

or

2. *a.* 800,000 publicly held shares.
   b. Market value of publicly held shares of $8 million.
   c. Net worth of $8 million.
   d. Incorporation of at least 4 years.

NASDAQ has three levels of subscribers. The highest level 3 subscribers are for firms dealing or making markets in OTC securities. These market makers maintain inventories of a security and constantly stand ready to buy or sell these shares from or to the public at the quoted bid and ask price.

bch_je

(b) Nov. 12	Accounts Payable	1,200	
	Merchandise Inventory (2% 3 $1,200) .		24
	Cash		1,176
	Paid for the purchase of November 2 less the discount.		

This is a First Level Head in Display font Bauer Bodoni

The capital allocation line is derived with the risk free asset and the risky portfolio P. Investors can determine the assets to be included in the risky portfolio using either a passive or an active strategy. A passive strategy describes an investment decision that avoids any security would appear to be naive yet the efficient market hypohesei predicts that forces of supply.

bchex_nm

bchex_tt

bchex_st

EXERCISE 18.32
Put-call Parity; Subtitle

bchex_tx

Suppose you confront the following data for a certain stock. This result a violation of parity (12 does not equal 10) indicates mispricing and leads to an abirtage opportunily. You can by the relatively cheap portfolio the stock puls borrowing position represented on the right hand side of the equation and sell the relatively expenside protfiool The long call short put postion corresponding to the left hand side that is wirte a call and We use these data in the put-call parity theorem to see if parity is violated.

bchex_eq

$$E(W) = pW_1 + (1 - p)W_2$$
$$= [.6 \times 150{,}000] + [.4 \times 80{,}000] = \$122{,}000$$

This result a violation of parity (12 does not eaual 10) indicates mispricing and leads to an abirtage opportunily.

bchex_ha

This is an Example Head

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The long call short put postion corresponding to the left hand side that is wirte a call and buy a put.

bchex_ln

1. Let's examine the payoff to this strategy. In six monthes the stock willbe worth St. The $100 booroed will be paid bak with interst reulting in a cah foow of $105. The written call will reutl in a cha outflow of St if the sotck pprice in below $105.

   Table 15.1 summariazeds the outcoem. The immediate cahs inflow is $2. In xix months the varous postion provide exably offsetting cah flow the $2 inflow is realsized rilessly withou any offsettin outfow.

The firm is willing to make only limited bet on interest rate movements. As Francis Traniner puts it in his speech:

bch_et

> If we set saturation of our portfolios at a level equal to the index and never allow them to vary this would imply that we are perpetually neutral on the direction of interest rate. However as those of you who have followed our economic forecasts are aware this is rarely the case.

The expected profit on the $100,000 investment portfolio is $22,000: 122,000 - 100,000. The variance, ø2, of the portfolio payoff is calculated as the expected value of the squared deviations of each possible outcome from the mean. The standard deviation , ø, which is the square root of the variance is $34,292.86.

bch_te

Merchandise Inventory			
Nov. 2	1,200	Nov. 12	24
Balance	1,176		

Accounts Payable			
Nov. 12	1,200	Nov. 2	1,200
		Balance	0

A Basic Decomposition: The Risky Portfolio and the Safe Asset

Clearly, this is risky business. The standard deviation of the payoff is larger, much larger than the expected profit of $22,000. Whether the expected profit is larger than the expected enough to justify such risk depends on the alternative portfolios.

bch_ettt

This is an Extract Title

bch_et

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bch_etln

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bch_etlu

   If we set saturation of our portfolios at a level equal to the index and never allow them to vary this would imply that we are perpetually neutral on the direction of interest rate.

Suppose Treasury bills are one alternative to Susan's risky portfolio and that at the time of the decision a one year T-bill offers a ra4e of return of 5 percent; $100,000 and be invested to yield a such profit of $5,000. The question of whether a given risk premium provides adequate compensation for the investment's risk is age-old. If you have absorbed all the lessons of this book, you know the season: risk. The averages of the annualized monthly rates of return and the standard deviations on the all bills and all equity strategies are:

bch_tbsh_a

bch_tbcn_a

bch_tbtx_a

	Motorola Price				
	$70	**$80**	**$90**	**$100**	**$110**
Value of portfolio A	$14,000	$16,000	$18,000	$20,000	$22,000
Value of portfolio B	0	0	10,000	20,000	30,000
Vaule of portfolio C	14,688	14,688	16,688	18,688	20,688

icon can postion here

SPREADSHEET MODEL FOR CALCULATION OF DURATION bchfa_ha

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bchfa_hb

Questions

bchfa_ln

1. Many observation are needed to dray significant conclusion even whom portfoliomean and variance are constant.
2. Shifting parameters when portfolios are actively managed made accurate performance evaluation all the more elusive.

Suppose Treasury bills are one alternative to Susan's risky portfolio and that at the time of the decision a one year T-bill offers a ra4e of return of 5 percent; $100,000 and be invested to yield a such profit of $5,000.

bchfa_lb

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bchfa_so

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bchfa_fn

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bch_hz

This is a Super Head

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans. The funds that secure pension and life insurance plans are managed by institutional investors.

When we shift wealth form the risky portfolio (P) to the risk free asset we do no change the relative proportions of the various risky portfolio as a whole in favor of risk free assets. Rather we reduce the relative weight of the risky portfolio as a whole in favor of risk free assets.

bch_la

A. The security market line

B. The put call parity relationship

C. The Black-Scholies option pricing model

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bch_dl

Person A: The security market line

Person B: When we shift wealth form the risky portfolio (P) to the risk free asset we do no change the relative proportions of the various risky portfolio as a whole in favor of risk free assets. Rather we reduce the relative weight of the risky portfolio as a whole in favor of risk free assets.

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bch_po

Poetry should be set line for line
and the longest line is centered within
the text.

When he has spent many years in captivity
and a runover in the verse.

bch_poau **—Poetry Author,** Affiliation bch_poau_a

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bch_etlb

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bchrd_nm

Reading/Case 1-3

bchrd_tt

Reading/Case Title in Bauer Bodoni: *The Subtitle Runs In* bchrd_st

bchrd_au

Author Name, Affiliation bchrd_auaf

bchrd_tx

Managing your own portfolio appears to be the lowest cost solution. Conceptually there is little difference between managing one's won investments and professional financial planning investment if at time we skip details.

bchrd_ha

Investment Strategy and Policies

bchrd_hb

Manage Your Own Portfolio or Rely on Others?

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans. The funds that secure pension and life insurance plans are managed by institutional investors.

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Risk, Speculation, and Gambling bchrd_hb

Speculators assume risk voluntarily and are often confused with gamblers who also seek risk. The business of investors is speculation so it is well to start by distinguishing them from gamblers. One dictionary's definition of speculation is the assumption of considerable business risk in obtaining commensurate gain.

This is a Third Level Head bchrd_hc

While this definition is fine linguistically it is vague if we cannot specify what is meant by considerable risk an commensurate gain process consists broadly speaking of tow tasks. One is security and market analysis, by which we assess the risk and expected return of the entire set of available investment vehicles. The second

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bchrd_nm

Reading/Case 1-3

bchrd_tt

Reading/Case Title in Stone Sans: The Subtitle bchrd_st

Runs-In and May Runover

bchrd_au

Author Name, Affiliation bchrd_auaf

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bceap_nm

Appendix 1

bceap_tt

Chapter Appendix Title in Stone Sans: *The Subtitle Runs-In*

bceap_st

bceap_au **Author Name,** Affiliation bceap_auaf

bceap_tx

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bcesu_lb

- One approach to firm valuation is to focus on the forms' book value either as it appears as it appears on the balance sellt or as adfuted to reflect current rep;acement cost of assets or liwuidation value. Another approach is to focus on the present value of expected future dividentds.
- The constant growth vesion of the DDM asserts that if dividends are expected to frow at a constant rate forever, then the intrinsic value of athe stock is dertimined by the formual

  V0 = D1 / k - g

  There are more sophisticated multistage versions of the model for more comples environments. When the constant growth assumption is reasonabley satisfied the formaul can be inverted to infer the market capitalization rate for the stock.
- One approach to firm valuation is to focus on the forms' book value either as it appears as it appears on the balance sellt or as adfuted to reflect current rep;acement cost of assets or liwuidation value. The models presented in this chapter can be used to explain to to forecast the behavior of the aggregate sock market. The key macroeconmic variables that determien the level of stock prices in the aggregate are interest rates and comporate profits.

bcekt_tt

Key Terms

bcekt_tx

book value, *446*
constant growth DDM, *420*
discounted dividend model, *419*
dividend payout ratio, *422*
earnings retention ratio, *422*
fundamental analysts, *415*
intrinscis value, *416*
liquidation value, *416*
market capitalization rate, *418*
plowback ratio, *422*
price/earnings multiple, *428*
replacement cost, *416*
technical analysts, *425*
Tobin's *416*

bcepq_tt

Problem Sets

bcepq_tx

The generalized APT must be qualified with respect to individual assets just as in the single factor case. A multifactor CAPM would at the cost of the additional assumtion on investor mean variance efficiency apply to any and all individual asserts As we have seen the result will be a security market evaluation theat is identical to the at of the multifactor APT and SML.

bcear_ur

A search engine for finance related sites is provided at:
www.financewise.com

bcepq_ln

1. *a.* Computer stocks currently provide an expected rate of return of 16 percent. MBI a large computer company will pay a year end divideund of $2 per share. If the stockis selling at $50 per share what must be the market's expectation of the growth rae of MBI dividends?
   b. If dividend growth forecasts for MBI are revsied downward to 5 percent per year what will happen to the price of MBI stock? What will happen to the company's price earingins ratio?
2. The constant growth dividend discount model cna be used both for the valuation of companies and for the estimation of the long-term total return of a stock.
3. If the expected rate of return ofthe market portfolio is 15 percent and a stock witha beta of 1.0 pays a dividend yield of 4 percent, what must the market believe is the expected rate of price appreciation on that stock?
4. The risk free rate of reurun is 10 percent the required rate of returnon the market is 15 percent and High Flyer stock has a beta coefficient of 1.5 If the dividend per share expected during the coming year D is $2.50 and g = 5 percent at what price should a share sell?

bcepq_ha

Problem Sets

The generalized APT must be qualified with respect to individual assets just as in the single factor case.

head position for 6-3/8 x 9-1/8 and 7-3/8 x 9-1/8 trim sizes

Solutions to Concept Check

bcesa_tt

1. *a.* Computer stocks currently provide an expected rate of return of 16 percent. MBI a large computer company will pay a year end divideund of $2 per share. If the stockis selling at $50 per share what must be the market's expectation of the growth rae of MBI dividends?
   b. If dividend growth forecasts for MBI are revsied downward to 5 percent per year what will happen to the price of MBI stock? What will happen to the company's price earingins ratio?

bcesa_tx

2. The constant growth dividend discount model cna be used both for the valuation of companies and for the estimation of the long-term total return of a stock.
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Appendix 1

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eap_tt

Capital Asset Pricing

eap_tx

Investment strategy for an individual or for an institution involves market timing, asset allocation, and security selection. Investors formulate strategies according to capital market expectations and investor specific circumstances such as tax obligations. Investment strategy also calls for portfolio monitoring performance evaluation and decisions on portfolio adjustment.

The first aim of this chapter is to describe how the investment industry relates to investor objectives. We present some intuitive arguments that we explain more rigorously in later chapters. Don't be frustrated if at time we skip details. Our intentions to provide some broad perspective on the investment process with allies spirit dynamism and related jargon. If you develop this acquaintance now you should find our later discussions more productive.

eap_ha

This is a First Level Head

eap_hb

This is a Second Level Head

Lots of people have assets such as social security benefits, pension and group insurance plans, and cravings components of life insurance policies. Yet they exercise limited control, if any on the investment decisions of these plans. The funds that secure pension and life insurance plans are managed by institutional investors.

Outside of the "forced savings" plans however individuals can manage their own investment portfolios. As the populations grows richer more and more people face this decision.

eap_ln

1. Maximize the number of observations by taking more frequent return readings.
2. Specify the exact makeup of the portfolio to obtain better estimates of the risk parameters at each observation period.

In the presence of window dressing even the reported quarterly composition data con be misleading. Mutual funds publish portfolio value on a daily basis, which means the rate of return of each day is publicly available, but portfolio composition is not.

eap_hc

This is a Third Level Head

One important factor affecting mutual fund performance is the fee structure. You should be aware of four general classes of fees.

eap_hd

Front-End Load A **front-end load** is a commission or sales charge paid when you purchase the shares. These charges typically fall between 4 percent and 8.5 percent and are used to pay brokers to sell the fund. Low-load funds have loads that range form 1 percent of 3 percent of invested funds. Low-load funds have loads that range from 1 percent

egl_tt

Glossary

egl_tm_a

A

egl_tm

abnormal return Rures conubium santet. (45) egl_df

adjustable rate Lascivius matrimonii suffragarit adlaudabilis chirographi. Plane adfabilis umbraculi miscere catelli. Ossifragi fortiter imputat cathedras, iam aegre gulosus matrimonii amputat tremulus fiducia suis. Syrtes adquireret parsimonia apparatus bellis. Gulosus concubine frugaliter miscere oratori. (379)

word Saetosus cathedras satis spinosus circumgrediet vix tremulus catelli, iam adfabilis saburre iocari saetosus catelli, etiam chirographi deciperet catelli, utcunque fiducia suis divinus fermentet agricolae, quamquam gulosus quadrupei deciperet perspicax ossifragi. (82)

word Quinquennalis concubine vocificat pretosius syrtes, iam verecundus chirographi deciperet Octavius, quamquam ossifragi conubium santet Medusa, semper oratori comiter suffragarit Aquae Sulis, quod umbraculi circumgrediet pessimus saetosus chirographi.

word Plane verecundus rures senesceret aegre utilitas catelli, etiam saburre verecunde circumgrediet Medusa. Lascivius fiducia suis iocari Augustus.

word Saetosus cathedras suffragarit Caesar.

word Satis bellus ossifragi comiter miscere concubine, quod Augustus senesceret catelli

word Apparatus bellis fortiter insectat ossifragi. Plane adfabilis syrtes divinus iocari umbraculi. Matrimonii corrumperet fragilis catelli, et utilitas umbraculi suffragarit fiducia suis, semper catelli conubium santet pessimus perspicax chirographi, etiam oratori deciperet zothecas, quod chirographi fortiter imputat Caesar.

word Verecundus cathedras satis neglegenter conubium santet quinquennalis zothecas. Catelli senesceret Augustus, utcunque adlaudabilis cathedras deciperet Aquae Sulis, ut pessimus tremulus quadrupei adquireret agricolae, quamquam Medusa miscere chirographi. Umbraculi imputat fragilis cathedras, et Caesar deciperet rures. Plane gulosus oratori frugaliter adquireret umbraculi, quamquam satis parsimonia chirographi circumgrediet apparatus bellis, quod catelli infeliciter insectat oratori, ut chirographi suffragarit verecundus matrimonii, iam utilitas oratori celeriter vocificat chirographi. Augustus amputat quadrupei. Gulosus catelli insectat syrtes. Concubine miscere verecundus chirographi, quamquam concubine incredibiliter fortiter senesceret adlaudabilis agricolae.cubine incredibiliter fortiter senesceret adlaudabilis agricolae.

word Apparatus bellis fortiter insectat ossifragi. Plane adfabilis syrtes divinus iocari umbraculi. Matrimonii corrumperet fragilis catelli, et utilitas umbraculi suffragarit fiducia suis, semper catelli conubium santet pessimus perspicax chirographi, etiam oratori deciperet zothecas, quod chirographi fortiter imputat Caesar.

B

word Aegre pretosius rures conubium santet quadrupei. Gulosus zothecas agnascor oratori.

word Quinquennalis ossifragi celeriter conubium santet zothecas. Lascivius matrimonii corrumperet Caesar, et vix parsimonia saburre divinus praemuniet verecundus zothecas. Adlaudabilis umbraculi circumgrediet perspicax chirographi. Utilitas apparatus bellis infeliciter fermentet lascivius rures.

word Medusa adquireret fragilis umbraculi. Matrimonii deciperet saburre. Quinquennalis agricolae corrumperet verecundus apparatus bellis, etiam parsimonia chirographi circumgrediet tremulus fiducia suis.

word Agricolae agnascor perspicax ossifragi, quamquam satis utilitas oratori circumgrediet umbraculi. Fragilis matrimonii deciperet bellus umbraculi, iam zothecas

word Plane verecundus rures senesceret aegre utilitas catelli, etiam saburre verecunde circumgrediet Medusa. Lascivius fiducia suis iocari Augustus.

word Saetosus cathedras suffragarit Caesar.

word Satis bellus ossifragi comiter miscere concubine, quod Augustus senesceret catelli

word Aegre pretosius rures conubium santet quadrupei. Gulosus zothecas agnascor oratori.

word Quinquennalis ossifragi celeriter conubium santet zothecas. Lascivius matrimonii corrumperet Caesar, et vix parsimonia saburre divinus praemuniet verecundus zothecas. Adlaudabilis umbraculi circumgrediet perspicax chirographi. Utilitas apparatus bellis infeliciter fermentet lascivius rures.

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