# WILEY FINANCE

# TREYNOR ON INSTITUTIONAL INVESTING

# JACK L. TREYNOR

Foreword by Jeff Diermeier, CFA President and CEO, CFA Institute



# Contents

Foreword

**Preface** 

**Acknowledgments** 

Introduction

# Part One: Risk

<u>Chapter 1: Using Portfolio</u> <u>Composition to Estimate Risk</u>

<u>Chapter 2: Business versus Statistical</u> <u>Price Risk</u>

Chapter 3: Specific Risk

<u>Chapter 4: On the Quality of</u> <u>Municipal Bonds</u>

> <u>How Cities Compete</u> <u>The Value of a City</u> <u>Implications for Bond Quality</u> <u>Appendix 4.1</u>

<u>Chapter 5: Time Diversification</u>

A Parable The Buy-and-Hold Investor Time Diversification Risk and Reward Terminal Dollars Constant Dollar Risk Inflation An Approximation The Role of Beta Accuracy of The Approximation Rebalancing The Evidence Implementing The Approximation Portfolio Should Risk Decline with Age?

# Part Two: CAPM

<u>Chapter 6: Toward a Theory of Market</u> <u>Value of Risky Assets</u>

<u>Chapter 7: Portfolio Theory Is</u> <u>Inconsistent with the Efficient Market</u> <u>Hypothesis</u>

**Chapter 8: In Defense of the CAPM** 

Part Three: Performance Measurement **Chapter 9: The Coming Revolution** 

<u>Chapter 10: How to Rate</u> <u>Management of Investment Funds</u>

<u>Analyzing Risk</u> <u>The Characteristic Line</u> <u>Performance Measure</u> <u>Rating Management</u> <u>Conclusion</u> <u>Appendix 10.1</u>

<u>Chapter 11: Can Mutual Funds</u> <u>Outguess the Market?</u> <u>Debated Responsibilities</u>

<u>Analytical Approach</u>

<u>Chapter 12: The Future of</u> <u>Performance Measurement</u>

# **Part Four: Economics**

<u>Chapter 13: Unemployment and</u> <u>Inflation</u>

Inflation and Stock Prices

<u>Chapter 14: What Professor Galbraith</u> <u>Neglected to Tell His Television</u> <u>Audience</u>

#### <u>|</u> <u>||</u> <u>|||</u>

#### <u>Chapter 15: The Financial Objective in</u> <u>the Widely Held Corporation</u>

Management EndsManagement MeansFinancial PowerStocks, Not FlowsShare Value Maximization is Management'sObjective

## **Chapter 16: The Real Cost of Inflation**

#### **Chapter 17: The Fiscal Burden**

<u>The Fiscal Burden</u> <u>Implications for Investment</u> <u>The Burden Ratio</u> <u>Interest Rates</u> <u>Conclusion</u> <u>Appendix 17.1</u> <u>Consolidated Financial Statements</u>

<u>Chapter 18: A Modest Proposal</u>

<u>The Calculation: Maximizing Labor's After-</u> <u>Tax Wage</u>

<u>Chapter 19: A More Modest Proposal</u>

<u>The Proof</u> <u>The Quadrennial Market Cycle</u>

<u>Chapter 20: Real Growth,</u> <u>Government Spending, and Private</u> <u>Investment</u>

<u>Isn't It Time to Get the Country Moving</u> <u>Again?</u>

What does Government Spending Have to<br/>do with Private Investment?Does Government Spending Create Jobs?Government Spending versus PrivateInvestmentWhat about Economic Instability?Isn't the Alternative Ineffectual?Appendix 20.1

<u>Chapter 21: Securities Law and Public</u> <u>Policy</u>

<u>Chapter 22: Shirtsleeves to</u> <u>Shirtsleeves in Three Generations</u>

<u>Wealth Distribution</u> <u>Changes in Wealth</u> <u>Appendix 22.1</u> <u>Rate of Wealth Changes</u>

<u>Chapter 23: Is Training a Good</u> <u>Investment?</u> <u>The Unskilled Wage</u> <u>The Plant-Labor Balance</u> <u>The Consequences of Training</u> <u>Capacity Additions and Training</u> <u>Summary</u>

<u>Chapter 24: The Fifth Horseman</u>

**Chapter 25: A Theory of Inflation** 

Introduction Section 1: Inflation Surprise in the Closed Economy Section 2: Inflation Trends in The Open Economy Section 3: Open Economies in A Closed World How Inflation Rates Change Testing the Model Conclusions Appendix 25.1 Devising Meaningful Tests Appendix 25.2 The Phillips Curves Appendix 25.3 Appendix 25.4 Estimating Openness

<u>Chapter 26: How to Regulate a</u> <u>Monopoly</u>

<u>The Regulation Problem</u> <u>A New Approach</u> <u>Chapter 27: Man's Most Important</u> <u>Invention</u>

#### <u>Chapter 28: Will the Phillips Curve</u> <u>Cause World War III?</u>

<u>Cause of Inflation</u> <u>U.S. Experience in the 1930s</u> <u>Japan's Problem</u> <u>Japan's Experience in the 1990s</u> <u>Shrinking Work Forces in Europe</u> <u>Escaping from a Liquidity Trap</u> <u>Conclusion</u>

# **Part Five: Trading**

<u>Chapter 29: What Kind of Security</u> <u>Analysis Contributes to Performance?</u>

<u>Chapter 30: The Only Game in Town</u>

<u>The Market Maker: Key to the Stock Market</u> <u>Game</u> <u>The Market Consensus</u> <u>Coppering the Public</u>

<u>Chapter 31: What the Courts Ought to</u> <u>Know about Prudence</u>

**Chapter 32: De Facto Market Makers** 

<u>Chapter 33: The Power of a Few</u> <u>Knowledgeable Investors</u>

<u>Chapter 34: Four Rules for Successful</u> <u>Trading</u>

<u>Chapter 35: Index Funds and Active</u> <u>Portfolio Management</u>

<u>Chapter 36: Opportunities and</u> <u>Hazards in Investigative Research</u>

<u>Chapter 37: What Does It Take to Win</u> <u>the Trading Game?</u>

A Third View Why Profit Opportunities Exist The Price of Executing The Cost of Trading Success in Trading Implications for Research Implications for Portfolio Managers Conclusion Appendix 37.1: The Cost of Trading

<u>Chapter 38: In Defense of Technical</u> <u>Analysis</u>

<u>The Probability Distribution of The Market</u> <u>Date</u>

#### **Conclusions**

#### <u>Chapter 39: The Economics of the</u> <u>Dealer Function</u>

Determining the Dealer's Spread Determining the Dealer's Mean Price Valuation Errors in VBTs' Estimates The Economics of Investing Appendix 39.1

## **Chapter 40: Market Manipulation**

#### <u>Chapter 41: Types and Motivations of</u> <u>Market Participants</u>

Key Elements in Investment Performance Trading, as well as Holding, Risks Invisible Trading Costs Defined Exchanging Price for Time Active Investing is a Game of Odds How We Think About the Nature of the Game Conclusion Question and Answer Session

#### <u>Chapter 42: The Invisible Costs of</u> <u>Trading</u>

<u>Key Elements in Investment Performance</u> <u>Active Investing Incurs Trading, as well as</u> <u>Holding, Risks</u> Invisible Trading Costs Defined Exchanging Price for Time Active Investing is a Game of Odds How We Think About the Nature of the Game Affects Our Performance Conclusions

<u>Chapter 43: Zero Sum</u>

<u>What is the Active Management Game?</u> <u>How We Win and Lose</u> <u>Conclusion</u>

<u>Chapter 44: Insider Trading</u> Jack L. Treynor Dean Lebaron

# **Part Six: Accounting**

<u>Chapter 45: Financial Reporting—for</u> <u>Whom?</u>

<u>Chapter 46: The Revenue-Expense</u> <u>View of Accrual Accounting</u>

<u>Chapter 47: The Trouble with</u> <u>Earnings</u>

<u>The Price of Relevance</u> <u>In Conclusion</u> **Chapter 48: The Trueblood Report** 

<u>Chapter 49: A Hard Look at</u> <u>Traditional Disclosure</u>

<u>Chapter 50: The Trouble with</u> <u>Corporate Disclosure</u>

# **Part Seven: Investment Value**

<u>Chapter 51: Top-Down Economic</u> Forecasts and Securities Selection

**Chapter 52: The Value of Control** 

<u>What Berle and Means Foresaw</u> <u>The Takeover Premium</u> <u>The Arithmetic of Leveraged Buyouts</u> <u>Conclusion</u>

<u>Chapter 53: Economic Life versus</u> <u>Physical Life</u>

<u>Chapter 54: The Investment Value of</u> <u>Plant</u>

<u>A New Tractor</u> <u>The High-Cost Producer</u> <u>How Plant Additions Affect the Supply</u> <u>Curve</u> <u>Economic Life of Plant</u> <u>The Value of Future Economic Rents</u> <u>Physical Versus Economic Life</u> <u>Marginal Cost Decays with Time</u> <u>Technology and the Supply Curve</u>

#### **Chapter 55: Growth Companies**

<u>The Concept of Brand Franchise</u> <u>Competitors and Producers</u> <u>Marketing Peace versus Marketing War</u> <u>Economic Goodwill and Growth</u> <u>Payback in Marketing</u> <u>Conclusion</u>

#### <u>Chapter 56: Bulls, Bears, and Market</u> <u>Bubbles</u>

<u>Are Bubbles Accidental?</u> <u>Are Bubbles Irrational?</u> <u>Appendix 56.1</u>

#### <u>Chapter 57: The Canonical Market</u> <u>Bubble</u>

<u>The Size of Wealth Changes</u> <u>The Precondition for Market Bubbles</u> <u>Passive Investors</u> <u>In a Bubble, Who Buys? Who Sells?</u> <u>Appendix 57.1</u>

#### <u>Chapter 58: The Investment Value of</u> <u>Brand Franchise</u>

Branch Franchise Power Marketing and the Brand Franchise The Two Meanings of "Competition" Implications for Antitrust Appendix 58.1

#### <u>Chapter 59: The Investment Value of</u> <u>an Idea</u>

<u>Why Ideas are Risky</u> <u>When will the New Replace the Old?</u> <u>Growth Companies</u> <u>Systematic Risk</u> <u>Wealth Borrowers and Wealth Lenders</u> <u>Entrepreneurial Risk</u>

# **Part Eight: Active Management**

<u>Chapter 60: How to Use Security</u> <u>Analysis to Improve Portfolio</u> <u>Selection</u>

<u>Definitions</u> <u>The Sharpe and Appraisal Ratios</u> <u>Deriving Forecasts of Independent Returns</u> <u>From Security Analysis</u> <u>Summary</u> <u>Appendix 60.1</u> **Chapter 61: Why Clients Fail** 

<u>Chapter 62: Long-Term Investing</u> <u>The Returns to Long-Term Investing</u> <u>Appendix 62.1</u>

**Chapter 63: The Institutional Shortfall** 

<u>Chapter 64: Persuasion and Long-</u> <u>Term Investing</u>

<u>Chapter 65: Is "Reasonable</u> <u>Knowledge" Enough?</u>

<u>Chapter 66: How Technical Should</u> <u>Investment Management Be?</u>

<u>Chapter 67: If You Can Forecast the</u> <u>Market, You Don't Need Anything Else</u>

<u>Chapter 68: Market Efficiency and the</u> <u>Bean Jar Experiment</u>

<u>The Bean Jar</u> <u>Published Research and Market Prices</u> <u>Trading on Information</u> <u>Conclusion</u> <u>Appendix 68.1</u> <u>Chapter 69: Information-Based</u> <u>Investing</u>

**Conclusion** 

<u>Chapter 70: The 10 Most Important</u> <u>Questions to Ask in Selecting a</u> <u>Money Manager</u>

# **Part Nine: Pensions**

<u>Chapter 71: Risk and Reward in</u> <u>Corporate Pension Funds</u>

<u>Chapter 72: An Investor's Guide to</u> <u>the Index Fund Controversy</u>

<u>Our Approach</u> <u>Index Fund Concept</u> <u>Practical Versions of Index Funds</u> <u>Managed Portfolios</u> <u>Conclusion</u> <u>Appendix 72.1</u> <u>I</u>

<u>Chapter 73: The Principles of</u> <u>Corporate Pension Finance</u> <u>Implications for Pension Claims</u> <u>The Pension Actuary's Approach</u> <u>Enter Erisa</u> <u>Are Private Creditors Worse off Under</u> <u>Erisa?</u> <u>Liability Insurance</u> <u>Summary</u>

<u>Chapter 74: Pension Claims and</u> <u>Corporate Assets</u>

<u>The Pension Burden Prior to Erisa</u> <u>A Practical Example</u>

## Part Ten: Cases

**Chapter 75: Feathered Feast** 

<u>Feathered Feast, Inc.</u> <u>Questions</u>

<u>Chapter 76: An Extraordinarily Cheap</u> <u>Trade</u>

<u>Questions</u>

**Chapter 77: The Gauntlet** 

<u>Questions</u> <u>Discussion</u>

Chapter 78: A Prudent Man

<u>Chapter 79: Default—Shawnee</u> <u>Manufacturing</u>

<u>Questions</u> <u>Default Discussion</u>

Chapter 80: Public Voting

<u>Questions</u> <u>Public Voting—Discussion</u>

<u>Chapter 81: Fiduciary Funds</u> <u>Discussion</u>

<u>Chapter 82: Poosha-Carta Food</u> <u>Stores</u> <u>Discussion</u>

<u>Chapter 83: The Fed Watchers</u> <u>Discussion</u>

<u>Chapter 84: Betting on Management</u> <u>Discussion</u>

<u>Chapter 85: Financial Literacy</u> <u>Discussion</u>

<u>Chapter 86: Cereal Mergers</u> <u>Questions</u> **Chapter 87: Quiz for Fed Candidates** 

## <u>Chapter 88: When Plant Wears Out</u> <u>Discussion</u>

<u>Chapter 89: Answers to Quiz for Fed</u> <u>Candidates</u>

<u>Chapter 90: Gas Caps and the</u> <u>Sherman Act</u> <u>Discussion</u>

<u>Chapter 91: The Worldwide Financier</u> <u>Questions</u>

<u>Chapter 92: Reifen AG</u> <u>Questions for Discussion</u>

# **Part Eleven: Miscellaneous**

#### **Chapter 93: Wha' Hoppen'?**

<u>Chapter 94: Portfolio Insurance and</u> <u>Market Volatility</u> <u>Calculating the Impact</u>

<u>Chapter 95: Betting on Good</u> <u>Management</u>

### <u>Chapter 96: Remembering Fischer</u> <u>Black</u>

#### <u>Chapter 97: Why Market-Valuation-</u> <u>Indifferent Indexing Works</u>

<u>The Basic Equation</u> <u>Implications for MVI Indexing</u> <u>Eliminating Small-Cap BIAS</u> <u>The Source of MVI's Advantage</u> <u>Trading Costs</u> <u>Conclusion</u> <u>Appendix 97.1: Reversion to True Value</u>

<u>Index</u>

# ADDITIONAL PRAISE FOR TREYNOR ON INSTITUTIONAL INVESTING

"Along with Fischer Black, Jack has one of the most creative minds ever to think about financial economics. He has ideas, and more ideas, and like Fischer he swings at losers, but once in a while he really cracks one out of the park. Sometimes Jack is so far ahead of the umpire of the day that what first looks like a foul ball turns into an in-the-park homer, after one takes the time to inspect the replay more carefully. So step up to the plate with Jack, and take a swing."

*—Mark Rubinstein, Professor of Finance, University of California at Berkeley, and author,* A History of the Theory of Investments: My Annotated Bibliography

"Simply put, Jack Treynor is one of the giants in modern financial theory, having generated a virtually continuous flow of deep insights that have advanced our understanding of how investors behave and how markets evolve. However, because he was so often well ahead of his time, his work and its influence on the field has not been as broadly recognized as it should be. This treasure trove of Treynor's writings will help rectify that situation. By diving into any one of his papers, the reader will emerge with a new slant on the topic, and be so much the wiser."

#### *—Martin L. Leibowitz, Managing Director, Morgan Stanley and Former CIO of TIAA-CREF*

"This long overdue volume tracing the development of capital market theory and practice is a fascinating and insightful read covering over 40 years of Jack Treynor's published work. Unbelievable in scope and breadth for a single author, Treynor has pioneered thinking in nine major capital market topics. The reader will also be challenged by 18 short case studies."

#### —Donald L. Tuttle, PhD, CFA, Vice President (retired), CFA Institute, Charlottesville, VA

"Jack Treynor is one of the most respected contributors to the revolution in financial markets theory in the last half of the 20th century. The investment profession will be forever grateful to Jack for his intellect and insights and his relentless pursuit of discoveries that provide an advantage to the prepared and patient investor. Through his marvelous compilation of his articles and essays, the CFA Institute has recognized Jack's contributions and shared his legacy with current and future generations."

*—John L. Maginn, CFA, Retired CIO Mutual of Omaha, President, Maginn Associates, Inc.* 

"Treynor on Institutional Investing is matchless. Jack Treynor, enigmatic market observer and participant, collects most of his investment wisdom-developed over a lifetime—in this phenomenal volume. Mr. Treynor is the missing link in financial economics; one whom many had overlooked and yet who, as the protege of Franco Modigliani and as the mentor of Fischer Black, first invented the Capital Asset Pricing Model. The insights in this amazing volume range far beyond asset pricing, risk, performance evaluation, covering microand macroeconomics, trading, accounting, valuation, active management, pension finance, and a host of case studies. If you only ever purchase one book on investing, *Treynor* on Institutional Investing is the bible!"

*—Craig W. French, Partner, Director of Risk & Quantitative Research, Corbin Capital Partners, L.P.* 

"Jack Treynor is the quintessential giant upon whose shoulders we have stood to peer further into the mysterious and complex world of modern finance. Always ahead of his time, Jack challenges us to question conventional wisdom, and with the benefit of hindsight, our appreciation for Jack's wisdom has grown deeper. This marvelous collection of Jack's papers serves as testimony to his unique originality and prodigious intellect."

*—Mark Kritzman, President and CEO, Windham Capital Management, LLC*  Founded in 1807, John Wiley & Sons is the oldest independent publishing company in the United States. With offices in North America, Europe, Australia, and Asia, Wiley is globally committed to developing and marketing print and electronic products and services for our customers' professional and personal knowledge and understanding.

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

For a list of available titles, please visit our Web site at <u>www.WileyFinance.com</u>.

# Treynor on Institutional Investing

JACK L. TREYNOR

	DICENTENNIAL	
NIA	1807	-
V K N	WILEY	1.1
0	2007	
	ICENTENNIAL	i

John Wiley & Sons, Inc.

Copyright © 2008 by Jack L. Treynor. All rights reserved. Published by John Wiley & Sons, Inc., Hoboken, New Jersey. Published simultaneously in Canada Wiley Bicentennial Logo: Richard J. Pacifico No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, (978)750-8400, fax (978) 646-8600, or on the Web at www.copyright.com. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at http://www.wiley.com/go/permissions. Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

For general information on our other products and services or for technical support, please contact our Customer Care Department within the United States at (800) 762-2974, outside the United States at (317) 572-3993 or fax (317) 572-4002.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic formats. For more information about Wiley products, visit our Web site at <u>www.wiley.com</u>.

#### Library of Congress Cataloging-in-Publication Data:

Treynor, Jack L.

Treynor on institutional investing / Jack L. Treynor.

p. cm.—(Wiley finance series)

Includes index.

ISBN 978-0-470-11875-7 (cloth)

ISBN-13 978-0-470-11875-7

1. Institutional investments. 2. Portfolio management. I. Title.

HG4521.T685 2007

332.67'253—dc22

2007026266

*To Betsy Glassmeyer Treynor, who changed my life from black and white to Technicolor.* 

# Foreword

#### Jack L. Treynor: An Independent Mind

This book, a collection of the writings of one of the most independent minds to tackle the financial market landscape, captures a number of ways in which the ever-provocative Jack Treynor influenced and touched the professional investment community over a period of decades. He reached many of us in two ways: (1) through published pieces of foresight and analysis that are now well recognized, and (2) through the individual guidance and advice that he has given to many of us. The book is part of a growing trend to recognize the many, and important, accomplishments of this esteemed practitioner.

If there is one way to sum up the contributions made by Treynor (and Walter Bagehot, his pseudonym for articles in CFA Institute's Financial Analysts Journal [FA]], it was captured in Perry Mehrling's book on the late Fischer Black.<sup>1</sup> Treynor is credited by many scholars with drawing Black into the world of finance, and the two collaborated and counterpointed for years. Speaking in 1997 at a meeting of the International Association of Financial Engineers, Nobel Laureate Paul Samuelson suggested that a "Hall of Fame of Theoretical Finance" list should include Myron Scholes, Robert Merton (who would go on to be awarded Nobel Prizes), and Fischer Black (who died before he could receive a Nobel). In the middle of his speech, after mentioning the innovation of the capital asset pricing model (CAPM) for which William Sharpe had won the Nobel Prize in 1990, another Nobel Prize winner, Franco Modigliani, rose and said, "What about Treynor? You forgot Treynor!"

He knew Treynor had developed a CAPM in 1962, because Treynor had shown the model to him, and Modigliani regretted that he had not seen its potential and encouraged Treynor to pursue it. "I made a mistake with Treynor," he has noted. Treynor discovered the CAPM as a part of a journey to find better answers to the question of what was the appropriate discount rate to be used in capitalbudgeting projects.

Ultimately, Black would write a letter of appreciation to Treynor as he was stepping down as editor of the *FAJ*, which read:

Your own research has been very important. You developed the capital asset pricing model before anyone else. But perhaps your greatest contribution has been through the work of others as Editor of the Financial Analysts Journal. Balancing academic interest, readability, and practical interest in a unique way, you guided issue after brilliant issue toward publication. I hope the profession will be able to repay you in some way.<sup>2</sup>

CFA Institute, representing the investment profession, broadly, owes a huge debt to Jack Treynor. In 1981 as Treynor's term with the *FAJ* was coming to a close, Charley Ellis, CFA wrote:

Financial analysts have been striving for many years to develop a strong profession. A profession depends explicitly upon a comprehensive body of knowledge. Great progress in developing our professional knowledge has been made, but not without the stress of working it out piece by piece and stage by stage. Jack has been a leader in the process of developing our knowledge and our understanding, and he has taken us with him.<sup>2</sup>

It is long past time for his writings to be gathered into a book that should grace the shelf of every investment professional.