

Behavioral Finance

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, visit our website at www.WileyFinance.com.

Behavioral Finance

Understanding the Social, Cognitive, and Economic Debates

> EDWIN T. BURTON SUNIT N. SHAH

> > WILEY

Cover image: © Michael Leynaud/Getty Images

Cover design: Leiva-Sposato

Copyright © 2013 by Edwin T. Burton and Sunit N. Shah. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey. Published simultaneously in Canada.

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 publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at http://booksupport.wiley.com. For more information about Wiley products, visit www.wiley.com.

Library of Congress Cataloging-in-Publication Data:

Burton, Edwin T.

Behavioral finance : understanding the social, cognitive, and economic debates / Edwin T. Burton and Sunit N. Shah.

pages cm.—(Wiley finance series)

Includes index.

ISBN 978-1-118-30019-0 (cloth); ISBN 978-1-118-33410-2 (ebk);

ISBN 978-1-118-33521-5 (ebk); ISBN 978-1-118-33192-7 (ebk)

- 1. Investments—Psychological aspects. 2. Capital market—Psychological aspects.
- 3. Decision making. I. Title.

HG4521.B837 2013

332.01'9—dc23

2012041904

Printed in the United States of America.

Contents

Preface	ХÌ
Introduction	1
PART ONE	
Introduction to Behavioral Finance	
CHAPTER 1 What Is the Efficient Market Hypothesis?	5
Information and the Efficient Market Hypothesis	6
Random Walk, the Martingale Hypothesis, and the EMH	8
False Evidence against the EMH	11
What Does It Mean to Disagree with the EMH?	13
CHAPTER 2	
The EMH and the "Market Model"	15
Risk and Return—the Simplest View	15
The Capital Asset Pricing Model (CAPM)	18
So What Is the Market Model?	23
CHAPTER 3	
The Forerunners to Behavioral Finance	25
The Folklore of Wall Street Traders	26
The Birth of Value Investing: Graham and Dodd	28
Financial News in a World of Ubiquitous	
Television and Internet	29
PART TWO	
Noise Traders	
CHAPTER 4	
Noise Traders and the Law of One Price	33
The Law of One Price and the Case of Fungibility	33
Noise	38

vi CONTENTS

CHAPTER 5	
The Shleifer Model of Noise Trading	43
The Key Components of the Shleifer Model	44
Results	49
Why the Shleifer Model Is Important	50
Resolving the Limits to Arbitrage Dispute	51
CHAPTER 6	
Noise Trading Feedback Models	53
The Hirshleifer Model	53
The Subrahmanyam-Titman Model	58
Conclusion	62
CHAPTER 7	
Noise Traders as Technical Traders	65
Technical Traders as Noise Traders	67
Herd Instinct Models	72
Conclusion	76
PART III	
Anomalies	
CHAPTER 8	
The Rational Man	81
Consumer Choice with Certainty	81
Consumer Choice with Uncertainty	84
The Allais Paradox	90
Conclusion	92
CHAPTER 9	
Prospect Theory	93
The Reference Point	93
The S-Curve	94
Loss Aversion	96
Prospect Theory in Practice	98
Drawbacks of Prospect Theory	98
Conclusion	100

Contents

CHAPTER 10	
Perception Biases	101
Saliency	101
Framing	103
Anchoring	106
Sunk Cost Bias	108
Conclusion	109
CHAPTER 11	
Inertial Effects	111
Endowment Effect	111
Status Quo Effect	116
Disposition Effect Conclusion	119
Conclusion	120
CHAPTER 12	100
Causality and Statistics	123 123
Representativeness Conjunction Fallacy	123
Reading into Randomness	127
Small Sample Bias	131
Probability Neglect	133
Conclusion	134
CHAPTER 13	
Illusions	135
Illusion of Talent	135
Illusion of Skill	138
Illusion of Superiority	139
Illusion of Validity	141
Conclusion	142
PART IV	
Serial Correlation	
CHAPTER 14	
Predictability of Stock Prices: Fama-French Leads the Way	147
Testing the Capital Asset Pricing Model	147
A Plug for Value Investing	149
Mean Reversion—The DeBondt-Thaler Research	151
Why Fama-French Is a Milestone for Behavioral Finance	152

VIII CONTENTS

CHAPTER 15	
Fama-French and Mean Reversion: Which Is It?	155
The Month of January	155
Is This Just About Price?	157 157
The Overreaction Theme	
Lakonishok, Shleifer, and Vishny on	
Value versus Growth	158
Is Overreaction Nothing More Than a "Small Stock" Effect?	159
Daniel and Titman on Unpriced Risk in Fama and French	164
Summing Up the Contrarian Debate	165
CHAPTER 16	
Short Term Momentum	167
Price and Earnings Momentum	167
Earnings Momentum—Ball and Brown	168
Measuring Earnings Surprises	170
Why Does It Matter Whether Momentum Is	
Price or Earnings Based?	173
Hedge Funds and Momentum Strategies	174
Pricing and Earnings Momentum—Are They Real and	
Do They Matter?	174
CHAPTER 17	
Calendar Effects	177
January Effects	178
The Other January Effect	180
The Weekend Effect	181
Preholiday Effects	182
Sullivan, Timmermann, and White	183
Conclusion	184
PART V	
Other Topics	
CHAPTER 18	
The Equity Premium Puzzle	187
Mehra and Prescott	187
What About Loss Aversion?	190
Could This Be Survivor Bias?	191
Other Explanations	192

Contents ix

Are Equities Always the Best Portfolio for the Long Run? Is the Equity Premium Resolved?	193 194
CHAPTER 19	
Liquidity	195
A Securities Market Is a Bid-Ask Market	196
Measuring Liquidity	197
Is Liquidity a Priced Risk for Common Stocks?	199
Significance of Liquidity Research	200
CHAPTER 20	
Neuroeconomics	201
Capuchin Monkeys	201
Innateness Versus Culture	203
Decisions Are Made by the Brain	203
Decisions versus Outcomes	205
Neuroeconomic Modeling	206
More Complicated Models of Brain Activity	208
The Kagan Critique	208
Conclusion	209
CHAPTER 21	044
Experimental Economics	211
Bubble Experiments	212
Endowment Effect and Status Quo Bias	215
Calendar Effects	216
Conclusion	216
CONCLUSION And the Winner Is?	217
The Semi-Strong Hypothesis—Prices Accurately Summarize	217
All Known Public Information	217
Can Prices Change if Information Doesn't Change?	219
Is the Law of One Price Valid?	220
Three Research Agendas	221
The Critics Hold the High Ground	223
What Have We Learned?	223
Where Do We Go From Here? (What Have We Not Learned?)	227
A Final Thought	230
Index	231