

# Contents

Acknowledgments	xiii
<b>Introduction</b>	<b>1</b>
<b>Chapter 1 David Leinweber</b>	
<i>President, Leinweber &amp; Co.</i>	<b>9</b>
A Series of Accidents	10
Grey Silver Shadow	13
Destroy before Reading	16
A Little Artificial Intelligence Goes a Long Way	18
How Do You Keep the Rats from Eating the Wires	20
Stocks Are Stories, Bonds Are Mathematics	23
HAL's Broker	26
<b>Chapter 2 Ronald N. Kahn</b>	
<i>Global Head of Advanced Equity Strategies, Barclays Global Investors</i>	<b>29</b>
Physics to Finance	30
BARRA's First Rocket Scientist	34

	Active Portfolio Management	42
	Barclays Global Investors	44
	The Future	46
<b>Chapter 3</b>	<b>Gregg E. Berman</b>	
	<i>Strategic Business Development, RiskMetrics Group</i>	<b>49</b>
	A Quantitative Beginning	50
	Putting It to the Test	53
	A Martian Summer	57
	Physics on Trial	57
	A Twist of Fate	59
	A Point of Inflection	60
	A Circuitous Route to Wall Street	61
	The Last Mile	65
<b>Chapter 4</b>	<b>Evan Schulman</b>	
	<i>Chairman, Upstream Technologies, LLC</i>	<b>67</b>
	Measurement	68
	Market Cycles	69
	Process	69
	Risk	70
	And Return	71
	Trading Costs	72
	Informationless Trades	73
	Applying it All	73
	Electronic Trading	75
	Lattice Trading	75
	Net Exchange	76
	Upstream	79
	Articles	81
<b>Chapter 5</b>	<b>Leslie Rahl</b>	
	<i>President, Capital Market Risk Advisors</i>	<b>83</b>
	Growing Up in Manhattan	83
	College and Graduate School	85
	Nineteen Years at Citibank	88
	Fifteen Years (So Far!) Running Capital Market Risk Advisors	90

Contents vii

Going Plural	92
The Personal Side	92
So How Did I Become a Quant?	92
<b>Chapter 6 Thomas C. Wilson</b>	
<i>Chief Insurance Risk Officer, ING Group</i>	<b>95</b>
Quantitative Finance: The Means to an End?	96
The Questions	98
The Early 1990s: The Market Risk Era	99
The Late 1990s: The Credit Risk Era	101
The Great Strategy Debate: From the 1990s to Today	102
Lessons Learned	104
<b>Chapter 7 Neil Chriss</b>	
<i>Former Managing Director of Quantitative Strategies, SAC Capital Management, LLC</i>	<b>107</b>
The Glass Bead Game	108
Of Explorers and Mountain Climbers	111
Computers	113
College Years	117
The University of Chicago PhD Program	118
Academia	120
The Harvard Mathematics Department	124
Moving to Wall Street	125
Quant Research	127
Quant Research and the Mathematics of Portfolio Trading	128
Quantitative Portfolio Management	130
Mathematical Finance Education	131
Final Thoughts	133
<b>Chapter 8 Peter Carr</b>	
<i>Head of Quantitative Financial Research, Bloomberg</i>	<b>137</b>
My First Eureka Moment	138
Accounting for the Future Instead of the Past	139

	Postdoctoral Studies	140
	And in the End . . .	141
<b>Chapter 9</b>	<b>Mark Anson</b>	
	<i>CEO, Hermes Pensions Management Ltd. CEO, British Telecommunications Pension Scheme</i>	<b>143</b>
	PhD, Why Not?	144
	Legal Arbitrage	146
	Managing the Outcome	148
	Certain Uncertainty	149
<b>Chapter 10</b>	<b>Bjorn Flesaker</b>	
	<i>Senior Quant, Bloomberg L.P.</i>	<b>151</b>
	Growing Up	152
	Choosing Academics	155
	Heeding the Call of the Street	160
	Becoming a Real Quant Again	162
<b>Chapter 11</b>	<b>Peter Jäckel</b>	<b>163</b>
	The English Connection	164
	London Calling	165
	Cutting One's Teeth	167
	All the Models in the World	168
	For Future Reference	170
	To the Front	173
<b>Chapter 12</b>	<b>Andrew Davidson</b>	
	<i>President, Andrew Davidson &amp; Co., Inc.</i>	<b>177</b>
	Conjecture 1: If It Quacks Like a Quant . . .	177
	Lemma 1: If You Don't Know Where You Are Going, Any Road Will Get You There	179
	Lemma 2: Pay No Attention to the Man behind the Curtain	181

Contents

ix

Theorem 1: If It May Be True in Theory but It Won't Work in Practice, Get a Better Theory	182
Theorem 2: To Thine Own Self Be True	185
<b>Chapter 13 Andrew B. Weisman</b> <i>Managing Director, Merrill Lynch</i>	<b>187</b>
Econometric Voodoo	188
Trading for Fun and Profit	189
Tools of the Trade	190
Lessons Learned	194
<b>Chapter 14 Clifford S. Asness</b> <i>Managing and Founding Principal, AQR Capital Management, LLC</i>	<b>197</b>
Chicago	198
A Big Decision	199
On Our Own	202
Moonlighting	206
Geeks of the World Unite	207
<b>Chapter 15 Stephen Kealhofer</b> <i>Managing Partner, Diversified Credit Investments</i>	<b>211</b>
A Startup	213
Practical Defaults	214
The Entrepreneur	217
Inventing a Business	219
Portfolio Management of Credit Risk	220
A Room with a View	223
<b>Chapter 16 Julian Shaw</b> <i>Head Risk Management &amp; Quantitative Research, Permal Group</i>	<b>227</b>
Gordon Capital	229
CIBC	231
Barclays Capital	232

Fat Tails and Thin Peaks	233
Adventures in CDO Land	234
The Strange Evolution of Value at Risk	235
A Paradox	236
Permal	236
What Makes a Good Quant?	237
The Art of Leaving Things Out	238
The Art of Choosing the Right Tools	238
Do Quants Lack Business Sense?	240
Tips	241
<b>Chapter 17 Steve Allen</b>	
<i>Deputy Director, Masters Program in Mathematics in Finance, Courant Institute of Mathematical Sciences, New York University</i>	<b>243</b>
In Which the Author Is Seriously Misled	243
In Which a Fortuitous Opportunity Appears	246
In Which Reason Prevails and All Rejoice	248
<b>Chapter 18 Mark Kritzman</b>	
<i>President and CEO, Windham Capital Management, LLC</i>	<b>251</b>
A Brief Chronology	252
How I Developed My Quant Skills	254
How I Applied My Quantitative Training	255
The Future for Quants	261
<b>Chapter 19 Bruce I. Jacobs and Kenneth N. Levy</b>	
<i>Principals, Jacobs Levy Equity Management</i>	<b>263</b>
Portraits of Two Investors	264
New Concepts, Foggy Ideas	265
The Jacobs Levy Investment Approach	268
Benefits of Disentangling	269
Integrating the Investment Process	273
Relaxing Portfolio Constraints	275

Contents xi

Integrated Long-Short Optimization	277
Books and an Ethical Debate	278
Portfolio Optimization and Market Simulation with Shorting	281
<b>Chapter 20 Tanya Styblo Beder</b>	
<i>Chairman, SBCC</i>	<b>285</b>
Yale	286
First Boston	289
Graduate School	290
Swaps	292
Giving Back	293
<b>Chapter 21 Allan Malz</b>	
<i>Head of Risk Management, Clinton Group</i>	<b>295</b>
How Not to Get a PhD	296
How Not to Get a PhD, Continued	297
RiskMetrics' Salad Days	300
No More Mr. Nice Guy	302
<b>Chapter 22 Peter Muller</b>	
<i>Senior Advisor, Morgan Stanley</i>	<b>305</b>
What's that Smell?	305
Life at BARRA	308
You Gotta Know When to Fold 'em	310
The Call that Changed Everything	312
<b>Chapter 23 Andrew J. Sterge</b>	
<i>President, AJ Sterge (a division of Magnetar Financial, LLC)</i>	<b>317</b>
On to the Real World	320
Cooper Neff	321
Early Days at Cooper Neff	322
Active Portfolio Strategies	324
How I Became a Quant	327

<b>Chapter 24 John F. (Jack) Marshall</b>	
<i>Senior Principal of Marshall, Tucker &amp; Associates, LLC and Vice Chairman of the International Securities Exchange</i>	<b>329</b>
From Premed to Derivatives	330
Frustration with Academia and the Birth of a Profession	331
The IAFE and the Road to MSFE Degrees	334
Notes	339
Bibliography	359
About the Contributors	363
About the Authors	379
Index	381