

CONTENTS

Foreword by Ted Aronson **xi**

Acknowledgments **xiii**

Introduction **xv**

Part One **1**

Wired Markets

Chapter 1: An Illustrated History of Wired Markets 5

Chapter 2: Greatest Hits of Computation in Finance 31

Financial Technology Stars; Hits and Misses; The Crackpot as Billionaire; Future Technological Stars; Mining the Deep Web; Language Technology; EDGAR; Greatest Hits, and the Mother of All Greatest Misses

Chapter 3: Algorithm Wars 65

Early Algos; Algos for Alpha; Algos for the Buy Side; From Order Pad to Algos; A Scientific Approach; Job Insecurity for Traders; So Many Markets, So Little Time; Known Unknowns and Unknown Unknowns; Models Aren't Markets; Robots, RoboTraders, and Traders; Markets in 2015, Focus on Risk; Playing Well with Robots and Algorithms; Seeing the Big Picture in Markets; Agents for News and Pre-News; Algorithms at the Edge

Part Two **89**

Alpha as Life

Chapter 4: Where Does Alpha Come From? 95

Alpha from Innovation; Alpha, the ARPANET, and the Internet; Summary

- Chapter 5: A Gentle Introduction to Computerized Investing 109
Indexing 101; Active Management; What Do Quantitative Managers Do?; Active Management on Steroids; Finding Information and Inefficiencies to Produce Alpha; All the Stocks, All the Time; Jumping the Trading Cost Hurdle; Putting the Pieces Together; Does This Really Work?
- Chapter 6: Stupid Data Miner Tricks 135
“Your Mama Is a Data Miner”; Strip Mining the S&P 500; Enough Regression Tricks; Is There Any Hope for Data Miners?; Summary (and Sermonette); Counting the Kiddies

Part Three

149

Artificial Intelligence and Intelligence Amplification

- Chapter 7: A Little AI Goes a Long Way on Wall Street 159
Prehistory of Artificial Intelligence on Wall Street; AI People Can Use; Where’s the AI?; Real Charting; Virtual Charting; Descriptive Programming; Information Flows and Displays in MarketMind and QuantEx; Integration with Real-Time Feeds and Historical Databases; Composing Syntactically Bulletproof Programs; From Indications to Orders to Executions; Vapor No More; Future Plans for AI in Finance (in 1995)
- Chapter 8: Perils and Promise of Evolutionary Computation on Wall Street 181
The AI Spring?; Genetic Algorithms; Evolving Financial Models; An Early Lesson; Arbitrage and Predictive Strategies; Maximizing Predictability; Chromosomes for Forecasting Models; Fitness Functions for Forecasting Models; Use of the GA for Coping with a Combinatoric Explosion of Models; Genetically Optimized Forecasting Models in Hindsight; Genetic Algorithm Warning Label
- Chapter 9: The Text Frontier: AI, IA, and the New Research 203
Ten Pounds of News in a Five-Pound Bag; Pre-News and Disintermediation; More Pre-News on the Internet

- Chapter 10: Collective Intelligence, Social Media, and Web
Market Monitors 227
Investing with Crowds; Never Met a Data Vendor I Didn't Like;
Santa Claus Is Coming to Town; Counting Messages; Whisper
Numbers—Ruined by Success; Monitoring Web Activity; More
Web, More Warnings
- Chapter 11: Three Hundred Years of Stock Market Manipulations:
From the Coffeehouse to the World Wide Web 253
The Power of Manipulation; A Classic Market Manipulation; The
Very Model of a Modern Market Manipulator; Bluffing; How
Communication Changes Market Manipulation; Anatomy of a
Successful Manipulation; The Internet Era; Cyber-Manipulations;
It's Not Just Micro-Caps; Where Are We Headed?

Part Four**273****Nerds Gone Wild: Wired Markets in Distress**

- Chapter 12: Shooting the Moon: Stupid Financial
Technology Tricks 279
To Protect and to Serve; Stupid Engineering Tricks; Stupid Financial
Engineering Tricks; Take Them Out and Shoot Them; Tech Hall of
Shame; Quants Who Saw It Coming
- Chapter 13: Structural Ideas for the Economic Rescue: Fractional
Homes and New Banks 305
Fractional Home Ownership; New American Bank Initiative; Still
Mad, but Ever Hopeful
- Chapter 14: Nerds Gone Green: Nerds on Wall Street, off
Wall Street 327
Accelerating Innovation; From the Vault; Billions of Dollars and
Millions of Tons of Carbon; Epilogue; Web Site

Index 343**About the Web Site 353**

NerdsonWallStreet.com

