CONTENTS

4-
17

The Effect of Stock Price Change—Delta, 38 The Rate of Change in Delta—Gamma, 42 How Deltas Change with Time, 460 Time Decay-Theta, 47 Changes in Volatility—Vega, 49 The Put-Call Parity Relationship, 49 Influence of Real World Factors, 53 Summary, 56 **CHAPTER 3** VOLATILITY EXPLAINED—James B. Bittman Introduction, 57 Historical Volatility, 58 Volatility and Option Value—A Conceptual Approach, 59 Changing the Volatility, 60 An Analogy to Volatility, 61 A More Advanced Example, 61 The Four-Period Case, 63 Moving Out One Period, 63 Changing the Movement in the Binomial Example, 65 Expected Volatility, 67 Implied Volatility, 68 Implied Volatility versus Expected Volatility, 69 Changes in Implied Volatility, 69 Real World Experience, 71 The Meaning of "20 Percent" Volatility, 71 Volatility and Average Price Movements, 72 Volatility and Implied Price Ranges, 73 Using This Concept of Price Ranges, 74 Overvalued and Undervalued, 75 The Basis for Theoretical Value, 76 Focus on Implied Volatility, 78 Summary, 78 **CHAPTER 4** OPTION STRATEGIES: ANALYSIS AND SELECTION—Elliot Katz 80 Description of Diagrams, 81 Call Buying, 82

The Second Level of Understanding, 37

57

Expected Behavior, 82

The Break-Even Point, 83

The Speculative Call Buyer, 84

The Insurance Value of Calls, 87

Put Buying, 89

General Behavior, 89

Time Decay, 91

Out-of-the-Money versus In-the-Money Puts, 92

A Strategic Application, 92

Term Insurance, 93

Call Selling, 94

Motivation of the Call Seller, 96

In-the-Money, At-the-Money, and Out-of-the-Money, 97

How Much Premium Is Enough? 99

Capital Commitment and Risk. 99

Put Selling, 99

Put Selling and Insurance, 100

Motivation to Sell Puts, 101

The Lost Opportunity, 102

Speculative or Conservative? 102

Covered Call Selling, 103

Covered Writing, 103

Overwriting, 105

Covered or Naked? 106

Covered Writing and Put Selling, 106

Bull Spreads, 107

Motivation of the Bull Spreader, 108

The Trade-Offs of Spreading, 108

Types of Bull Call Spreads, 110

The Bullish Put Spread, 111

Two Special Risks of Early Assignment, 112

Bear Spreads, 113

Motivation of the Bear Spreader, 114

Trade-Offs of Bear Spreading, 115

Types of Bear Put Spreads, 115

The Bearish Call Spread, 117

Summary of Spreading, 117

CHAPTER 5

```
Long Straddle, 117
    Motivation, 118
    At Expiration, 118
    Risks of the Long Straddle, 119
    Before Expiration, 120
    Which Stocks? 121
  Long Strangle, 121
    At Expiration, 121
    In-the-Money or Out-of-the-Money? 122
    Strangle or Straddle? 124
  Short Butterfly, 126
   At Expiration, 127
   1 Butterfly = 2 Spreads, 128
    When to Use, 128
 Short Condor, 129
 Short Straddle, 130
   Motivation, 131
   Time Decay, 132
   Risks and Capital Management, 133
   Capital Required, 133
 Short Strangle, 133
 Long Butterfly, 135
   Motivation, 137
   The Directional Butterfly, 137
Long Condor, 139
NEW PRODUCT STRATEGIES-J. Marc Allaire
                                                             141
LEAPS®, 141
  Buying Calls as an Alternative to Using Margin, 146
  Covered Writing, 150
  Purchasing Long-Term Insurance, 152
  Purchasing a Collar, 154
Index LEAPS®, 155
CAPS®, 156
  Strategy Equivalencies, 157
Other New Products, 160
 Flex™ Options, 160
 End-of-Quarter Options, 161
```

The Volatility Index, 161

PART 2 TRADING STRATEGIES

CHAPTER 6

のない かんかいしょく

OPTIONS FOR THE SMALL INVESTOR—Harrison Roth

165

Getting In. 165

The Protective Put. 165

The Married Put. 166

Put Purchase versus Short Sale, 167

Buying Calls, 168

Expiration Cycles, 170

Covered Call Writing, 172

Uncovered Put Writing, 175

Covered Straddle Writing, 177

Systematic Writing, 178

Spreads, 179

Far Out Calendar Spread, 181

Getting Out, 182

Scaling Out, 182

Replacement Therapy, 183

Enhancement, 183

Reduced-Risk Trading, 186

Repair, 188

Option Repair, 188

Stock Repair, 191

Summary and Conclusion, 192

Risk Transfer, 192

Afterword, 194

CHAPTER 7

INSTITUTIONAL USES OF OPTIONS—James B.

Bittman

196

Introduction to Portfolio Insurance, 196

A Look at Index and Equity Options, 196

Advantages of Index Options, 200

Strategic Considerations of Portfolio Insurance, 201

The Alternatives, 202

Index Put Buying Strategies, 202

Decreasing Market Exposure, 202

How the Strategies Perform, 202

Choosing a Portfolio Insurance Strategy, 208

Column 1: Selling the Portfolio, 209

Column 2: Selling Stock Index Futures, 211

Column 3: Buying a Portfolio Equivalent of

At-the-Money Index Puts, 212

Column 4: Buying a Portfolio Equivalent of Out-of-the-Money Puts, 213

Column 5: Buying a Portfolio Multiple of Out-of-the-Money Puts, 215

Where the Insurance Analogy Breaks Down, 217

Market Timing, 218

Dynamic Hedging Can Reduce Market Exposure Using Puts, 218

Index Call Buying Strategies, 220

Increasing Market Exposure with Limited Risk, 220

The 90/10 Strategy, 220

Buying a Portfolio Equivalent of At-the-Money Calls. 222

Low-Cost Participation with Out-of-the-Money Calls. 222

Leverage with Out-of-the-Money Calls, 223

Choosing the Appropriate Call Buying Strategy, 225

Analysis for Choosing Index Call Buying Strategy 3, 226

Analysis for Choosing Index Call Buying Strategy 2, 228

Analysis for Choosing Index Call Buying Strategy 1, 229

Dynamic Hedging Increases Market Exposure Using Calls, 230

Other Portfolio Strategies, 232

Reducing Volatility by Writing Covered Calls, 232

The Fence Strategy, 235

The Portfolio Repair Strategy, 239

Selling Equity Puts: A Portfolio Management View, 241 Covered Writing versus Put Selling: Finding a Difference

Where There Is None, 244

CHAPTER 8

THE BUSINESS OF MARKET MAKING—Anthony J. Saliba

The Role of Options Market Makers, 245 The Business of Market Making, 246

245

Large and Small Operations, 247

Styles of Options Trading, 248

How Market Makers Price Options, 249

Relative and Arbitrage Spreads, 249

Conversions and Reversals, 252

Dividends, 254

Hidden Risks, 255

Box Spreads, 257

Box Pricing, 258

Jelly Rolls and More, 261

Theoretical Values and Volatility, 262

A Tool for Accepting Volatility Exposure, 264

Volatility Premium, 266

An Edge and a Hedge, 267

Delta. 267

Curve, 269

Volatility Plays, 270

Removing the Risks of Index Options, 274

Trading a Portfolio Delta-Neutral, 276

Time Spreads, Butterflies, and Other Trading Tools, 278

Time Spreads, 280

Trading Time Spreads: A Conflict in Intuition, 281

Butterflies, 284

What It Takes to Become a Market Maker, 288

Costs and Commitments of Market Making, 288

Success, 292

Reflections on What the Future Holds, 293

PART 3 REAL TIME APPLICATIONS

CHAPTER 9

A STATE OF THE PROPERTY OF THE

USING OPTION MARKET INFORMATION TO MAKE STOCK MARKET DECISIONS—James W. Yates, Jr.

297

The Put-Call Ratio, 298

Option Premiums, 301

Option Premium Indices, 301

Implied Volatility, 305

CBOE Market Volatility Index, 305

Summary, 312

CHAPTER 10

INSTITUTIONAL CASE STUDIES—Gary L. Trennepohl and C. R. (Sonny) Tucker

Case One Lincoln Pension Trust, 315

Suggested Analysis for Lincoln Pension Trust Case, 339

Case Two Hampton Fund, 363

Suggested Analysis for Hampton Pension

Fund Case, 377

Glossary, 389

Index 409

313