

options markets

John C. Cox

Massachusetts Institute of Technology

Mark Rubinstein

University of California, Berkeley

TECHNISCHE HOCHSCHULE DARMSTADT	
Fachbereich 1	
<u>Gesamtbibliothek</u>	
<u>Betriebswirtschaftslehre</u>	
Inventar-Nr. :	37.851
Abstell-f.r. :	A06/323
Sachgebiete :	0.3.5.0

contents

PREFACE	vii
1 INTRODUCTION	1
1-1 What Are Puts and Calls? 1	
1-2 Payoff Diagrams for Elementary Strategies 8	
1-3 A Brief Survey of the Way Options Are Traded 23	
2 SOME FUNDAMENTAL ASPECTS OF OPTIONS	33
2-1 Determinants of Option Value 33	
2-2 The Relationship Between Puts and Calls 39	
2-3 Why Investors Use Options 44	
Appendix 2A The Relationship Between Options and Forward and Futures Contracts 59	
3 THE STRUCTURE OF THE MARKET FOR PUTS AND CALLS	63
3-1 Public Orders 63	
3-2 The Options Clearing Corporation 69	
3-3 How the Exchanges Work 71	
3-4 The Performance of Options Markets 82	
3-5 Institutional Participation in Options Markets 93	
Appendix 3A Margin 98	
Appendix 3B Commissions 109	
Appendix 3C Taxes 115	

4	GENERAL ARBITRAGE RELATIONSHIPS	127
4-1	Arbitrage Restrictions on Call Values	129
4-2	Arbitrage Restrictions on Put Values	145
4-3	Further Results on the Relationship Between Puts and Calls	150
4-4	Some Restrictions on Option Values as a Function of the Stock Price	154
	Appendix 4A Arbitrage Restrictions on the Value of Cash Dividends	161
5	AN EXACT OPTION PRICING FORMULA	165
5-1	The Basic Idea	166
5-2	Binomial Random Walks	168
5-3	The Binomial Option Pricing Formula	171
5-4	Riskless Trading Strategies	178
5-5	Option Risk and Expected Return	185
5-6	The Black-Scholes Formula	196
5-7	An Alternative Derivation	212
5-8	How Changes in the Variables Affect Black-Scholes Option Values	215
5-9	How to Include Dividends and the Possibility of Early Exercise	236
6	HOW TO USE THE BLACK-SCHOLES FORMULA	253
6-1	How to Compute Black-Scholes Values	254
6-2	Some Modifications to Make the Model Work Better	266
6-3	Analysis of Covered Positions	287
6-4	Screening Neutral Positions	307
6-5	Portfolio Considerations	317
6-6	Empirical Evidence	338
	Appendix 6A Valuation with Programmable Calculators	343
	Appendix 6B Stocks with Exchange-Traded Options	346

7	GENERALIZATIONS AND APPLICATIONS	359
7-1	Alternative Descriptions of Stock Price Movements 360	
7-2	Generalized Options 371	
7-3	Corporate Securities 375	
7-4	Down-and-Out Options 408	
7-5	Compound Options 412	
7-6	Options on More Than One Stock 415	
7-7	Options on Stock Futures 418	
7-8	An Outline of Some Further Extensions 420	
8	INNOVATIONS IN OPTIONS MARKETS	427
8-1	The Economic Function of Securities Markets 427	
8-2	The Contribution of Options 436	
8-3	Options on the Market Portfolio 446	
8-4	The Superfund 458	
	Appendix 8A An Index of Option Prices 468	
	GLOSSARY OF SYMBOLS	475
	BIBLIOGRAPHY	478
	INDEX	493