Mastering Derivatives Market

A step-by-step guide to the products, applications and risks

Third Edition

FRANCESCA TAYLOR



Contents

Author's acknowledgements	. XIII	
Publisher's acknowledgements		
Foreword	XV	
Contributors • ' • •	xvii	
Background and Development of the Derivatives Markets	1	
Introduction '	2	
Definition and key features	3	
Uses of derivatives	3	
Range of derivatives	4	
Increasing use of the Central Counterparty Model (CCP)	5	
Risk and benchmarking .	6	
Market volumes .	6	
Users and uses of derivatives markets	7	
Straight Through Processing (STP)	9	
Market Fundamentals	11	
Introduction	12	
How banks generate income .'	12	
Three key assumptions	14	
RoleanduseofLIBOR	15	
Day counts	17	
Financial maths	18	
Calculating forward rates	21	
Marking to market	24	
Yield curves .	25	
Quiz '	'26	
Derivatives Fundamentals	29	
Range of derivatives	30	
What is a vanilla trade?	30	
Settlement	31	

	Triggers	32
	Liquidity and credit risk	33
	Understanding the underlying Benchmarks	33
		34
	Fair value	34
	Dealing with derivatives	34
4	Basic Option Concepts	39
	Introduction	40
	Option pricing	52
	Option mechanics .	52
5	Interest Rate Derivatives - Single Settlement Instruments .	59
	Background and development	60
	Single settlement interest rate derivatives	62
	Financial futures contracts	63
	Forward rate agreements (FRAs)	75
	Interest rate options	87
	Premium determinants	88
	Quiz	97
6	Multiple Settlement Interest Rate Derivatives	99
	Introduction	100
	Interest rate caps and floors .	102
	Interest rate collars	110
	Interest rate swaps	116
	Quiz	133
7	Benchmarking in the OTC Derivatives Markets Penny Davenport	135
	Financial benchmarking for derivatives	136
	Operational risk measurements for derivatives	139
	Markit Annual Scorecard	140
	Conclusion	141
8	Credit Derivatives	143
	Introduction	144
	What is credit risk?	145
	Style of trading	146
	Default data	148
	The first deals	148

	Range of credit derivatives	'148
	Credit default swaps ,	149
	Total return swaps	158
9	Beyond a Vanilla CDS .	161
	Robert Reoch	
	Introduction	162
	Credit indices	162
	CDOs	167
	Where next?	173
10	Currency Derivatives	175
	Introduction	176
	Over the counter currency options	178
	Currency options: reduced premium strategies	202
	Simple exotic structures	210
	Currency swaps	212
	Exchange-traded instruments	223
	Conclusion	226
	Quiz	226
11	Equity Derivatives	229
	Introduction	230
	Background	230
	Single stocks or equity indices?	231
	Stock index futures	. 2 3 5
	Stock index options	249
	Single stock options I	259
	Equity index swaps	.263
12	Using Equity Derivatives to Create Attractive Investment	
	Products for Personal Investors	273
	Christopher C. Taylor	
	Equity investment ,	274
	The development of the UK and European markets for equity-	
	based retail products	275
	Constructing a capital protected growth product with	
	equity derivatives • • • • •	277
	Income paying capital-at-risk products	280
	Calculation of income level	280
	The risk to capital	281
	The most common structural variations used in the equity	
	derivative market	281