Contents

1.1 Overview

2

1.2	The Swap Product Defined 3
1.3	The Origins of the Swaps Markets 4
	The Economic Foundations of the Swap Product 8
	Swap Facilitators 13
	1.5.1 Brokers 14
	1.5.2 Dealers 14
1.6	Futures 17
1.7	Options 19
	Some Miscellaneous Points about Swaps 20
	Summary 22
Revi	ew Questions 23
Note	•
Refe	rences and Suggested Reading 25
Refe	erences and Suggested Reading 25
	The state of the s
	Generic Swap Structure 27
The	The state of the s
The 2.1	Generic Swap Structure 27 Overview 27
The 2.1 2.2	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28
The 2.1 2.2 2.3	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28 Interest Rate Swaps 30
The 2.1 2.2 2.3 2.4	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28 Interest Rate Swaps 30 Currency Swaps 35
The 2.1 2.2 2.3 2.4 2.5	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28 Interest Rate Swaps 30 Currency Swaps 35
The 2.1 2.2 2.3 2.4 2.5 2.6	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28 Interest Rate Swaps 30 Currency Swaps 35 Commodity Swaps 38 Variants 40
The 2.1 2.2 2.3 2.4 2.5 2.6 2.7	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28 Interest Rate Swaps 30 Currency Swaps 35 Commodity Swaps 38 Variants 40 Illustrating Cash Flows 40
The 2.1 2.2 2.3 2.4 2.5 2.6	Generic Swap Structure 27 Overview 27 The Structure of a Swap 28 Interest Rate Swaps 30 Currency Swaps 35 Commodity Swaps 38 Variants 40 Illustrating Cash Flows 40

1 An Overview and Brief History of the Swaps Markets

1

3

5

Review Questions 44 Notes 45 References and Suggested Reading 46
Interest Rate Swaps 47
 3.1 Overview 47 3.2 Indicative Pricing Schedules: The Interest Rate Swap 48 3.3 Adjustments to Indicative Pricing 55 3.3.1 Amortizing Swaps: A Role for Average Life 55 3.3.2 Payment Frequencies 58 3.3.3 Off-Market Pricing 60 3.4 Market Imbalances and Pay/Receive Rate Adjustments 3.5 Variant Forms of the Interest Rate Swap 64 3.6 Other Uses for Interest Rate Swaps 66 3.6.1 Hedging Interest Rate Risk 67 3.6.2 Deseasoning a Firm's Cash Flows 69 3.7 Summary 74 Review Questions 75 Notes 76 References and Suggested Reading 77
Currency Swaps 79
 4.1 Overview 79 4.2 The Basic Structure of a Currency Swap 80 4.3 Indicative Pricing Schedules: Currency Swaps 85 4.4 Currency Swaps with No Initial Exchange of Borrowings 87 4.5 Off-Market Pricing 89 4.6 Circus Swaps 93 4.7 Other Uses for Currency Swaps 94 4.7.1 Hedging Price Risks: A Case Analysis 96 4.7.2 Exploiting Economies of Scale 99 4.7.3 Gaining Access to New Markets 100 4.8 Variants 101 4.9 Summary 102 Review Questions 103 Notes 104 References and Suggested Reading 104
Commodity Swaps and Equity Swaps 105
 5.1 Overview 105 5.2 Commodity Swaps 106 5.3 The Plain Vanilla Equity Swap 107 5.4 Equity Swap Dealers 108

5.5 Variants of the Basic Equity Swap5.6 Institutional Considerations 11.

	Note	ew Questions 114
6	Swa	ps, Structured Solutions, and Financial Engineering 117
	6.1	Overview 117
	6.2	
	6.3	6.3.1 Structured Solutions Using Commodity Swaps: A Case 119 6.3.2 Structured Solutions Using Equity Swaps: A Case 122
	6.4	Structuring Solutions with Swaps and Other Derivatives 123
	6.5	Creating Synthetic Instruments 125 6.5.1 Synthesizing a Dual Currency Bond 125 6.5.2 Synthesizing a Foreign-Pay Zero 127 6.5.3 Synthetic Equity 130
	6.6	Arbitraging Markets 131
	6.7	Structures 132
	6.8	Choosing among Financing Alternatives—The All-In Cost 134 6.8.1 All-In Cost: An Example 136
		Summary 139
		ew Questions 139
	Note Refe	rences and Suggested Reading 141
7	The	Pricing of Interest Rate Swaps 143
	7.1	Overview 143
	7.2	Short-Dated Swaps 145 7.2.1 Using Eurodollar Futures to Price Swaps 146
	7.3	Long-Dated Swaps 154 7.3.1 Swap Pricing: The Conventional View 155
		7.3.1 Swap Pricing: A More Complete Model 158
		7.3.3 Comparative Statics 161
		7.3.4 Pressure toward an Equilibrium 1617.3.5 Swap Futures 163
	7.4	Implied Forward Pricing 164
	7.5	A Final Note on Spreads Over Treasury 165 Pricing Currency Swaps (An Extension) 166
	7.6	Theng Currency Swaps (, in Excession)
	7.7 Revi	Summary 167 sew Questions 167
	Note	

110

References	and	Suggested	Reading	171

8 Managing a Swap Portfolio 173

- 8.1 Overview 173
- 8.2 Risk Exposures for the Swap Dealer 173
 - 8.2.1 Interest Rate Risk and Spread Risk 174
 - 8.2.2 Exchange Rate Risk 178
 - 8.2.3 Credit/Default Risk 179
 - 8.2.4 Mismatch Risk 180
 - 8.2.5 Basis Risk 181
 - 8.2.6 Sovereign Risk 182
 - 8.2.7 Delivery Risk 183
- 8.3 Quantifying and Managing the Exposure 183
 - 8.3.1 Quantifying and Managing Default Risk 184
 - 8.3.2 Managing Interest Rate Risk and Exchange Rate Risk 187
- 8.4 Miscellaneous Portfolio Management Considerations 190
- 8.5 Treatment of Swaps under the New International Capital Standards 191
- 8.6 Swap Documentation 194
- 8.7 Summary 201

Review Questions 202

Notes 203

References and Suggested Reading 204

9 Hedging Business Cycle Risk: The Next Major Wave in Derivatives? 207

- 9.1 Overview 207
- 9.2 Macroeconomic Risk: A Form of Quantity Risk 208
- 9.3 Macroeconomic Swaps and Options: The Concept 209
- 9.4 The Viability of Macroeconomic Swaps and Options 211
- 9.5 Testing the Macro Swap Concept 212
- 9.6 Hedging the Dealer's Book 213
- 9.7 Summary and Conclusions 214

Review Ouestions 215

Notes 216

References and Suggested Reading 216

Glossary 219

Answers to Review Questions 235

Index 263