

CONTENTS

<i>List of Figures</i>	xvi
<i>List of Tables</i>	xviii
<i>List of Boxes</i>	xxi
<i>Preface</i>	xxii
<i>Acknowledgements</i>	xxiv
1 The World of Finance	1
1.1 Introduction	2
1.2 Financial centres	3
1.3 The role of a financial centre	3
1.4 Money markets, capital markets and the banking system	5
1.5 Services of a financial centre	6
1.6 The growth of the financial services industry	9
1.7 The globalization of financial markets	10
1.8 Technology	11
1.9 Deregulation	13
1.10 Financial innovation	14
1.11 Types of financial innovations	18
1.12 Emerging markets	18
1.13 Problems concerning investment in emerging markets	21
1.14 The future	22
1.15 Conclusions	24
2 Financial Intermediation and Financial Markets	26
2.1 Introduction	27
2.2 Surplus and deficit agents	27
2.3 What is a financial security?	28
2.4 Types of financial claims: debt and equity	28
2.5 The role of financial intermediaries	29
2.6 Provision of a payments mechanism	30
2.7 Maturity transformation	30
2.8 Risk transformation	30
2.9 Liquidity provision	31
2.10 Reduction of contracting, search and information costs	32
2.11 Types of financial markets	32
2.12 The classification of financial markets	34

2.13	The role played by financial markets	35
2.14	Participants in financial markets	36
2.15	Conclusions	37

3 Financial Institutions 39

3.1	Introduction	40
3.2	The central bank	40
3.3	The implementation of monetary policy	41
3.4	Management of the national debt	41
3.5	Supervisory function	41
3.6	Types of financial intermediaries	43
3.7	Deposit institutions	43
3.8	The banking sector	44
3.9	Savings institutions	45
3.10	Insurance companies	45
3.11	The phenomenon of Bancassurance	50
3.12	Mutual funds or unit trusts	51
3.13	Investment companies and investment trusts	52
3.14	Exchange traded funds	53
3.15	Pension funds	55
3.16	Hedge funds	56
3.17	Private equity	57
3.18	Specialist financial institutions	60
3.19	Venture capital companies	61
3.20	Finance companies or finance houses	61
3.21	Factoring agencies	62
3.22	The role of financial institutions	62
3.23	Conclusions	65

4 Monetary Policy and Interest Rate Determination 67

4.1	Introduction	68
4.2	The functions of money	68
4.3	Bills and bonds	69
4.4	The operation of monetary policy	70
4.5	Monetary policy in practice and the announcement effect	73
4.6	The commercial banking system and the narrow and broad money supply	75
4.7	Formula for the money multiplier	77
4.8	Controlling the money supply	78
4.9	The determination of interest rates	79
4.10	The loanable funds approach to interest rate determination	81
4.11	Money market or loanable funds theory?	83
4.12	Inflation and interest rates	83
4.13	Fiscal policy and interest rates	85
4.14	Other factors influencing the interest rate	86
4.15	Theories of the yield curve	86
4.16	Expectations theory	87
4.17	Liquidity preference theory	89
4.18	Preferred habitat theory	90

4.19	Market segmentation theory	90
4.20	The importance of alternative views of the term structure	91
4.21	Problems with monetary policy	91
4.22	Conclusions	92
5	Domestic and International Money Markets	94
5.1	Introduction	95
5.2	Types of domestic money market instruments	95
5.3	Treasury bills	95
5.4	Commercial paper	97
5.5	The interbank market	97
5.6	Banker's acceptances	100
5.7	Repurchase agreements	101
5.8	Certificates of deposit	101
5.9	The international money market	102
5.10	Euromarkets	102
5.11	The origins and development of the Euromarkets	102
5.12	The characteristics of the Eurodollar market	104
5.13	The competitive advantage of Eurobanks	106
5.14	The coexistence of domestic banking and Eurobanking	108
5.15	The creation of Eurodeposits	109
5.16	The pros and cons of the Eurocurrency markets	110
5.17	Syndicated loans	110
5.18	Euronotes	111
5.19	Conclusions	112
6	The Domestic and International Bond Market	114
6.1	Introduction	115
6.2	Trading in government bonds	115
6.3	Determining the price of government bonds	116
6.4	Clean and dirty bond prices	117
6.5	The current yield	117
6.6	The simple yield to maturity	118
6.7	Yield to maturity	118
6.8	The par value relation	119
6.9	Bond price volatility	121
6.10	Duration	122
6.11	Modified duration	123
6.12	The duration for a portfolio of bonds	125
6.13	A formula to calculate duration	126
6.14	Duration and the problem of curvature of the bond–price relationship	126
6.15	The usefulness of the duration measure	127
6.16	Yield curves	128
6.17	Corporate bonds	128
6.18	Credit ratings	129
6.19	Risks associated with corporate bonds	133
6.20	Financial innovation and corporate bonds	133
6.21	Junk bonds	135

6.22	Medium-term notes	136
6.23	The international capital market	136
6.24	Motivations behind international capital flows	137
6.25	The origins and development of the Eurobond market	137
6.26	Typical features of a Eurobond	138
6.27	Control and regulation of the Eurobond market	140
6.28	The management of a Eurobond issue	141
6.29	Innovations in the Eurobond market	142
6.30	Conclusions	144
7	Portfolio Analysis: Risk and Return in Financial Markets	147
7.1	Introduction	148
7.2	Determining the price of a financial asset	148
7.3	The rate of return on a security	149
7.4	The variance and standard deviation of the rate of return	150
7.5	Risk on a security	151
7.6	Covariance and correlation of rates of return	152
7.7	Different types of investors	153
7.8	The indifference curves of risk-averse investors	154
7.9	Portfolio theory	155
7.10	Reducing risk through diversification	155
7.11	Measuring risk on a portfolio	156
7.12	The two-asset efficiency frontier	158
7.13	The minimum variance portfolio in the two risky assets case	159
7.14	The portfolio efficiency frontier	160
7.15	Market risk and specific risk	163
7.16	The efficient set with a riskless security	165
7.17	The market portfolio	166
7.18	The market price of risk	168
7.19	Measuring the market index	168
7.20	Conclusions	169
8	The Capital Asset Pricing Model	172
8.1	Introduction	173
8.2	The market model	173
8.3	Portfolio risk and return using the market model	175
8.4	The capital asset pricing model	176
8.5	Assumptions of the CAPM	176
8.6	The theory behind the CAPM	177
8.7	Expressing the CAPM in risk premium form	179
8.8	The securities market line	180
8.9	The CAPM in action: measuring the beta coefficient	182
8.10	Empirical testing of the CAPM	184
8.11	The empirical evidence on the CAPM	188
8.12	The multifactor CAPM	189
8.13	The arbitrage pricing theory (APT) critique of the CAPM	190
8.14	Conclusions	191

9	Stockmarkets and Equities	195
9.1	Introduction	196
9.2	The major international stockmarkets	196
9.3	Stockmarket participants	199
9.4	The primary and secondary markets	199
9.5	Different types of equity	200
9.6	The buying and selling of shares	203
9.7	A rights issue	203
9.8	A simple model of the pricing of a rights issue	206
9.9	Does the performance of the stockmarket matter?	206
9.10	The pricing of equities	207
9.11	The dividend pricing approach	208
9.12	The Gordon growth model	208
9.13	A non-constant growth version of the dividend discount model	210
9.14	The dividend irrelevance theorem	211
9.15	Measurement of the required rate of return	211
9.16	The subjectivity of share pricing	212
9.17	Forecasting future dividends: business risk and the effects of gearing	213
9.18	Debt or equity finance?	218
9.19	Other approaches to equity valuation: financial ratio analysis	219
9.20	The usefulness of financial ratios	223
9.21	Conclusions	224
10	The Efficiency of Financial Markets	227
10.1	Introduction	228
10.2	Three levels of efficiency	229
10.3	The efficient market hypothesis and a random walk	229
10.4	Implications of various forms of efficiency tests	231
10.5	Active versus passive fund management	232
10.6	Testing for weak market efficiency	232
10.7	Tests of the random walk hypothesis	232
10.8	Filter rule tests	232
10.9	Other statistical tests	234
10.10	The day-of-the-week effect	234
10.11	The January effect	234
10.12	The winner–loser problem	235
10.13	Testing for semi-strong market efficiency	236
10.14	The results of event studies	240
10.15	The size effect	241
10.16	The price–earnings effect	241
10.17	The earnings-announcement effect	241
10.18	Stockmarket crashes	242
10.19	Testing the strong form of market efficiency	243
10.20	Directors'/managers' share purchases	243
10.21	Information content of analysts' forecasts	243
10.22	Conclusions	244

11 The Foreign Exchange Market	246
11.1 Introduction	247
11.2 Exchange rate definitions	247
11.3 Characteristics of and participants in the foreign exchange market	248
11.4 Arbitrage in the foreign exchange market	250
11.5 The spot and forward exchange rates	252
11.6 A simple model for determining the spot exchange rate	254
11.7 Alternative exchange rate regimes	257
11.8 Determination of the forward exchange rate	263
11.9 Nominal, real and effective exchange rate indices	266
11.10 Conclusions	273
12 Theories of Exchange Rate Determination	275
12.1 Introduction	276
12.2 Purchasing power parity theory	277
12.3 Absolute PPP	277
12.4 Relative PPP	278
12.5 Measurement problems in testing for PPP	278
12.6 Empirical evidence on PPP	280
12.7 Summary of the empirical evidence on PPP	285
12.8 Explaining the poor performance of purchasing power parity	285
12.9 Modern theories of exchange rate determination	287
12.10 Uncovered interest rate parity	287
12.11 Monetary models of exchange rate determination	288
12.12 The flexible price monetary model	289
12.13 The Dornbusch sticky price monetarist model	293
12.14 A simple explanation of the Dornbusch model	293
12.15 A formal explanation of the Dornbusch model	295
12.16 A money supply expansion and exchange rate overshooting	298
12.17 Importance of the Dornbusch overshooting model	300
12.18 The Frankel real interest rate differential model	300
12.19 Conclusions	303
13 Financial Futures	305
13.1 Introduction	306
13.2 The growth of futures exchanges	306
13.3 Comparison between futures and forward contracts	307
13.4 Exchange traded derivative contracts versus the over-the-counter market	309
13.5 Trading in exchange futures contracts	309
13.6 The role of the clearing house	310
13.7 Open interest and reversing trades	310
13.8 Stock index futures	311
13.9 The symmetry of profits/losses on futures/forward positions	316
13.10 The pricing of stock index futures	318
13.11 Short-term interest rate futures	319
13.12 The pricing of a Euribor interest rate futures contract	321
13.13 Using interest rate futures	322

13.14	Bond futures contracts	323
13.15	Currency futures	325
13.16	The pricing of currency futures	326
13.17	Conclusions	327
14	Options	330
14.1	Introduction	331
14.2	The growth of options markets	331
14.3	Options contracts	331
14.4	A call option contract	332
14.5	A put option contract	334
14.6	Stock index options	337
14.7	Interest rate options	338
14.8	Currency options	339
14.9	The uses of options contracts	340
14.10	Differences between options and futures contracts	342
14.11	A currency option versus a forward contract for hedging	342
14.12	A currency option versus a forward contract for speculating	344
14.13	Options strategies	345
14.14	Exotic options	348
14.15	Conclusions	349
15	Option Pricing	352
15.1	Introduction	353
15.2	Principles of option pricing	353
15.3	Intrinsic value and time value	354
15.4	The distribution of the option premium between time and intrinsic value	355
15.5	The Black–Scholes option pricing formula	359
15.6	Different measures of volatility	363
15.7	The calculation of historical volatility	363
15.8	Problems with the Black–Scholes option pricing formula	365
15.9	The sensitivity of options prices	365
15.10	Put–call parity	366
15.11	Conclusions	369
16	Swap Markets	373
16.1	Introduction	374
16.2	Potential swap scenarios	374
16.3	An interest rate swap	377
16.4	A currency swap agreement	380
16.5	The role of the intermediary in the swap	384
16.6	The secondary market in swaps	385
16.7	Distinguishing characteristics of the swap market from the forward and futures markets	386
16.8	Reasons for the existence of the swap market	387
16.9	Innovations in the swap market	387
16.10	Conclusions	388

17 Financial Innovation and the Credit Crunch	390
17.1 Introduction	391
17.2 Financial innovation: collateralized debt obligations and credit default swaps	392
17.3 Special purpose vehicle/special purpose entity	395
17.4 A structured investment vehicle	396
17.5 Credit derivatives and credit default swaps	397
17.6 The pricing of credit derivatives	403
17.7 The credit crunch	405
17.8 Causes of the credit crunch	408
17.9 Legislative changes and deregulation	408
17.10 Deterioration in bank lending standards and adverse selection	411
17.11 Increase in household indebtedness	412
17.12 Financial innovation and the credit rating agencies	413
17.13 Increased leverage in the financial system	413
17.14 Mispricing of risk	414
17.15 Incentive structures and risk management practices in the banks	415
17.16 The response to the credit crunch	416
17.17 Cuts in official short-term interest rates	419
17.18 Liquidity provision	419
17.19 Quantitative easing	421
17.20 Fiscal stimulus	422
17.21 Bailouts of financial institutions	423
17.22 Bank stress tests	424
17.23 Regulatory response	426
17.24 The UK response	429
17.25 Fines	434
17.26 Conclusions	435
18 Regulation of the Financial Sector	439
18.1 Introduction	440
18.2 The rationale for government intervention	440
18.3 The objectives of government regulation	442
18.4 Types of government regulation	442
18.5 Regulation of the banking sector	444
18.6 Statutory regulation versus self-regulation	446
18.7 Regulation in the UK	446
18.8 Big bang, 1986	447
18.9 The Financial Services Act 1986	448
18.10 The Banking Act 1987	449
18.11 The Bank of England Act 1998	449
18.12 Financial Services and Markets Act 2000	450
18.13 Banking Act 2009	450
18.14 The Financial Services Act 2013	450
18.15 European regulation	452
18.16 The First Banking Directive 1977	454
18.17 The Second Banking Directive 1989	455
18.18 The creation of a European Banking Union	455

18.19	International regulation: the Basel I Accord 1988	457
18.20	The Basel II Accord 2004	459
18.21	The Basel III Accord 2011–19	460
18.22	Issues for regulatory reform raised by the credit crunch	461
18.23	Conclusions	462
<i>Glossary</i>		464
<i>References</i>		487
<i>Bibliography</i>		491
<i>Index</i>		495