

Contents

<i>Preface</i>	x
<i>Acknowledgements</i>	xv
PART ONE REAL ESTATE AS AN INVESTMENT: AN INTRODUCTION	1
Chapter 1 Real estate – the global asset	3
1.1 The global property investment universe	3
1.2 Market players	6
1.3 Property – its character as an asset class	11
1.4 Conclusions	28
Chapter 2 Global property markets and real estate cycles	32
2.1 Introduction	32
2.2 The United States	34
2.3 The UK property market – a performance history	67
2.4 Continental Europe	80
2.5 Asia	83
2.6 Conclusions	91
Chapter 3 Market fundamentals and rent	94
3.1 Introduction: the global property cycle	94
3.2 The economics of rent	95
3.3 Forecasting rents	109
3.4 Conclusions	116

Chapter 4	Asset pricing, portfolio theory and real estate	117
4.1	Risk, return and portfolio theory	117
4.2	A property appraisal model	124
4.3	The model components	132
4.4	The required return for property assets	140
4.5	Forecasting real estate returns	142
4.6	Conclusions: a simple way to think about real estate returns	151
PART TWO MAKING INVESTMENT DECISIONS AT THE PROPERTY LEVEL		155
Chapter 5	Basic valuation and investment analysis	157
5.1	Introduction	157
5.2	Estimating future cash flows	161
5.3	The discount rate	166
5.4	Conclusions	170
Chapter 6	Leasing	171
6.1	Introduction	171
6.2	Legal characteristics of leases	173
6.3	The leasing process	174
6.4	Important economic elements of a lease	174
6.5	Lease economics and effective rent	192
6.6	Conclusions	199
Chapter 7	Valuing commercial real estate: the unleveraged case	203
7.1	Introduction: the investment opportunity	203
7.2	Developing a pro-forma income statement	206
7.3	Variation using the cap rate	210
7.4	Valuation using cash flows	212
7.5	Applying discounted cash flow to analyze investment feasibility	219
7.6	Conclusions	221
Chapter 8	Mortgages: an introduction	222
8.1	Introduction	222
8.2	What is a mortgage?	223
8.3	The risks and returns of mortgage investment	225
8.4	The financial components of a mortgage	226
8.5	The mortgage menu	229
8.6	An introduction to mortgage mathematics	231
8.7	Conclusions	247

Chapter 9	Commercial mortgage underwriting and leveraged feasibility analysis	248
9.1	Introduction	248
9.2	The mortgage underwriting process	248
9.3	Investment feasibility with leverage: before-tax analysis	256
9.4	Investment feasibility with leverage: after-tax analysis	263
9.5	Global variations in real estate debt	270
9.6	Conclusions	272
Chapter 10	Valuing the private real estate entity	274
10.1	Introduction: the four quadrants and private equity	274
10.2	Sponsor economics	276
10.3	The life cycle of a private equity fund	277
10.4	Fund economics	279
10.5	Waterfall structures	282
10.6	Private equity structures in the credit crisis	289
10.7	Conclusions	291
PART THREE REAL ESTATE INVESTMENT STRUCTURES		293
Chapter 11	Unlisted real estate funds	295
11.1	Introduction to unlisted real estate funds	295
11.2	The growth of the unlisted real estate fund market	299
11.3	Unlisted fund structures	303
11.4	Characteristics of unlisted real estate funds	307
11.5	Liquidity and valuation issues	310
11.6	The case for and against unlisted real estate funds	312
11.7	Conclusions	317
Chapter 12	Public equity real estate	319
12.1	Introduction	319
12.2	REITs and REOCs	320
12.3	Listed funds and mutual funds	321
12.4	Exchange-traded funds (ETFs)	321
12.5	The US REIT experience	322
12.6	The global market	331
12.7	REIT pricing	335
12.8	Conclusions	339
Chapter 13	Real estate debt markets	340
13.1	Introduction	340
13.2	A brief history lesson	342

13.3	Wall Street Act I: the early residential mortgage-backed securities market	344
13.4	Wall Street Act II: senior-subordinated securities, the advent of structured finance	350
13.5	Wall Street Act III: the evolution of structured finance	356
13.6	Collateralized debt obligations (CDOs)	361
13.7	Summary	363
13.8	Mezzanine debt	364
13.9	Cash-out refinancing	367
13.10	All good things must come to an end	369
13.11	Conclusions	377
Chapter 14 Real estate derivatives		378
14.1	Introduction	378
14.2	A short history of the real estate derivatives market	379
14.3	Total return swaps	381
14.4	Structured real estate index notes	386
14.5	Traded property futures and options	387
14.6	Pricing property derivatives	389
14.7	Property derivatives: pros and cons	399
14.8	Property derivatives: spin-offs	401
14.9	Conclusions	405
PART FOUR CREATING A GLOBAL REAL ESTATE STRATEGY		407
Chapter 15 International real estate investment: issues		409
15.1	Introduction: the growth of cross-border real estate capital	409
15.2	The global real estate market	411
15.3	The case for international real estate investment	415
15.4	The problems: an introduction	419
15.5	Technical issues	420
15.6	Formal barriers	423
15.7	Informal barriers	427
15.8	Conclusions	433
Chapter 16 Building the global portfolio		440
16.1	The top-down portfolio construction process	440
16.2	Strengths, weaknesses, constraints: portfolio analysis	447
16.3	A pricing approach for international property	451
16.4	Managing currency exposure and currency risk	463
16.5	Portfolio construction	471
16.6	Conclusions	474

Chapter 17	Performance measurement and attribution	475
17.1	Performance measurement: an introduction	475
17.2	Return measures	476
17.3	Attribution analysis: sources of return	487
17.4	Attribution analysis: the property level	489
17.5	Attribution analysis: the portfolio level	492
17.6	Attribution and portfolio management: alpha and beta	502
17.7	Performance measurement and return attribution for property funds	505
17.8	Conclusions	518
Chapter 18	Conclusions	520
18.1	Why property?	520
18.2	Liquid structures	521
18.3	Unlisted funds	521
18.4	International investment	523
18.5	Best-practice real estate investment	523
18.6	Pricing	524
18.7	The future	525
	<i>References</i>	526
	<i>Glossary</i>	533
	<i>Index</i>	548