

# CONTENTS

<i>Acknowledgements</i>	xiii
<i>Table of cases</i>	xiv
<i>Table of legislation</i>	xvii
<i>Table of international treaties and instruments</i>	xxiii
<i>Abbreviations and definitions</i>	xxv
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 CLIMATE CHANGE: THE SCIENCE, THE INTERNATIONAL STAGE, TERMINOLOGY, AND BOUNDARIES	9
2.1 Climate and climate change	9
2.2 The IPCC and climate science	10
2.2.1 Drivers of climate change	10
2.2.2 Observed changes in the climate system	11
2.2.3 Climate change emission scenarios	12
2.2.4 Limiting future climate change	13
2.3 The international climate change architecture	14
2.3.1 1992 Climate Change Convention	14
2.3.2 Kyoto Protocol	16
2.3.3 Paris Agreement	17
2.3.4 Implementation of the Paris Agreement in the UK	22
2.3.5 Implementation of the Paris Agreement in the EU	24
2.3.6 Implementation of the Paris Agreement worldwide	25
2.4 Climate action, the environment, sustainability, and ESG	26
2.4.1 Environment, climate action, and climate resilient development	26
2.4.2 Sustainability	28
2.4.3 ESG	31
2.5 Conclusion	33
CHAPTER 3 CLIMATE CHANGE RISKS AND THE ROLE OF INSURERS	34
3.1 Nature of insurance	34
3.2 Insurability of climate change risks and protection gaps	37

## CONTENTS

3.2.1	Insurability	37
3.2.2	Climate change risks	38
3.2.3	Simple risks and complex risks	42
3.2.4	Protection gaps	43
3.3	The interaction between climate change, climate change risk, and insurance	46
3.3.1	Inward impact: the impact of climate change risk on insurers	47
3.3.2	Outward impact: the impact of insurers on the climate and climate change	47
3.3.3	Outward impact: climate-related impact underwriting and impact investment	52
3.4	Role of insurers and the insurance industry	53
3.4.1	Contract conception	54
3.4.2	Public utility-regulated industry conception	55
3.4.3	Product conception	56
3.4.4	Governance conception	57
3.4.5	Enabling conception	59
3.5	Conclusion	62
CHAPTER 4 CLIMATE CHANGE RISK ASSESSMENT AND REGULATION		64
4.1	Insurance regulation and regulators	64
4.1.1	IAIS	65
4.1.2	UK: PRA and FCA	66
4.1.3	EU: EIOPA	68
4.2	Climate change as a regulatory issue	69
4.3	Regulatory mandate	70
4.3.1	IAIS	70
4.3.2	PRA and FCA	71
4.3.3	EIOPA	73
4.4	Regulatory approaches	73
4.4.1	Challenges of regulating inward impact and outward impact	73
4.4.2	IAIS	75
4.4.3	PRA	77
4.4.4	FCA	86
4.4.5	EU and EIOPA	88
4.4.6	USA: anti-ESG legislation	94
4.5	Conclusion	96
CHAPTER 5 CLIMATE-RELATED DISCLOSURES		98
5.1	The TCFD Recommendations	100
5.1.1	The Task Force	100
5.1.2	The ‘all sector’ recommendations	102
5.1.3	The insurance guidance	102
5.1.4	Disclosures on outward impact?	105
5.1.5	Metrics and targets	107
5.1.6	Data assurance	108

## CONTENTS

5.2	IFRS International Sustainability Disclosure Standards	109
5.2.1	IFRS S1	110
5.2.2	IFRS S2	112
5.2.3	Joint provisions and boundaries	116
5.3	UK climate-related and sustainability disclosure requirements	118
5.3.1	PRA regulatory disclosure requirements	118
5.3.2	FCA regulatory disclosure requirements	118
5.3.3	FCA: listed insurers	119
5.3.3.1	The TCFD Listing Rules statement	119
5.3.3.2	Other requirements for listed insurers and insurer issuers	120
5.3.4	FCA: life insurers	121
5.3.5	FCA: in-scope life insurers	121
5.3.5.1	ESG Sourcebook	121
5.3.5.2	Sustainable investment labels	124
5.3.5.3	Sustainability-related disclosure regime	126
5.3.6	FCA: all UK-regulated insurers	128
5.3.7	Companies Act 2006 corporate disclosure requirements	130
5.3.7.1	Strategic Report	130
5.3.7.2	Non-financial and sustainability information statement	131
5.3.8	Data assurance	135
5.3.9	Is the UK disclosure regime supporting an enabling role?	136
5.4	EU climate-related and sustainability disclosure requirements	137
5.4.1	The EU Taxonomy	137
5.4.1.1	Environmentally sustainable economic activities	138
5.4.1.2	Technical screening criteria	138
5.4.1.3	Key obligations	140
5.4.2	SFDR: sustainability-related disclosures in the financial services sector	141
5.4.3	Corporate disclosures on sustainability	146
5.4.3.1	Scope and phasing in	146
5.4.3.2	What needs to be disclosed?	147
5.4.3.3	European Sustainability Reporting Standards	148
5.4.3.4	Single electronic reporting format	149
5.4.4	Data assurance	150
5.4.5	Benchmarks, standards, labels, and green-washing	151
5.4.6	EU: further developments	152
5.5	Conclusion	153
<b>CHAPTER 6 INSURING GREEN AND NOT INSURING BROWN</b>		<b>155</b>
6.1	What is climate-related impact underwriting?	156
6.2	Corporate purpose and environmental objectives	159
6.2.1	Corporate purpose	160
6.2.2	Consideration of the impact on the environment	162
6.2.3	Protection gaps and financial stability	167
6.2.4	Disclosure, reputational implications, and litigation risk	169
6.2.5	Environmental stewardship	171

## CONTENTS

6.3	Insuring green	172
6.3.1	Insuring infrastructure projects	173
6.3.2	Insuring green: examples	175
6.3.3	Prudential treatment of insuring green	177
6.4	Not insuring brown	180
6.4.1	Impact of not insuring brown	180
6.4.2	Prudential treatment of insuring brown	183
6.4.3	Individual voluntary commitments	183
6.4.4	The Net Zero Insurance Alliance (NZIA)	186
6.4.5	Competition issues	189
<b>CHAPTER 7 GREENING INSURANCE</b>		197
7.1	The insurance value chain	198
7.2	Product development	199
7.2.1	Product design and target market	200
7.2.2	Fair value	201
7.2.3	Modular design	202
7.2.4	Compliance with the consumer duty	202
7.3	The marketing and sale of green insurance products	203
7.3.1	Product suitability	203
7.3.2	Product disclosure	205
7.4	Pre-contractual risk management and information	208
7.4.1	Climate risk as part of the policyholder’s risk presentation	208
7.4.2	Risk assessment as part of the underwriting process	209
7.4.3	Information on risk management	211
7.4.4	Restrictions on non-insurance business	213
7.4.5	The consumer duty	214
7.4.6	Duty of care	216
7.5	Pricing	218
7.5.1	Pricing factors and considerations	218
7.5.2	Pricing climate change mitigation	220
7.5.3	Pricing climate change adaptation	222
7.5.4	Barriers to risk-based pricing	223
7.5.4.1	Costs and fairness of distribution	223
7.5.4.2	Lack of policyholders’ awareness about climate change and related adaptation measures	224
7.5.4.3	Lack of pricing signal	225
7.5.4.4	Measuring risk reduction	225
7.5.4.5	Verification and monitoring continuing compliance	225
7.5.4.6	Twelve-month policy term	226
7.5.4.7	Uncertain prudential treatment	226
7.5.5	Other pricing mechanisms	227
7.6	Terms (other than pricing and claims)	227
7.6.1	Existing landscape	228
7.6.2	Terms for green insurance products	230
7.6.3	Examples	234

## CONTENTS

7.7	Claims	235
7.7.1	Types of green reinstatement terms	236
7.7.2	Costs	238
7.7.3	Prudential treatment of green reinstatement terms	241
7.7.4	Conduct regulation on claims handling	241
7.8	Unfair contract terms	242
7.8.1	CRA 2015	242
7.8.2	Application to green reinstatement terms	243
7.8.3	Application to terms that mandate climate change mitigation or adaptation measures	245
7.9	Conclusion	246
<b>CHAPTER 8 CLIMATE-RELATED IMPACT INVESTMENT AND STEWARDSHIP</b>		<b>248</b>
8.1	What are impact climate-related investment and stewardship?	249
8.1.1	Historical background	250
8.1.2	Defining climate-related impact investment	251
8.1.3	Defining climate-related stewardship	258
8.1.4	Green pills and summary	260
8.2	Rationales for climate-related impact investment and stewardship	261
8.2.1	Societal rationales	261
8.2.2	Financial rationales	262
8.2.3	Policyholder preferences	264
8.2.4	Regulatory approaches	264
8.3	Insurer's own investments: regulatory requirements and legal issues	264
8.3.1	Prudential regulation relating to investments	265
8.3.2	Business conduct regulation of stewardship	270
8.3.3	US anti-ESG legislation	273
8.3.4	Legal issues arising from collective stewardship and collaborative investment practices	274
8.4	IBIPs: regulatory requirements	278
8.4.1	The client's best interests rule and 'best execution'	279
8.4.2	Product suitability	280
8.4.3	Product disclosure	281
8.4.4	Business conduct requirements during the term of the IBIP	283
8.5	Combined insurance and investment solutions with outward impact	284
8.5.1	Climate Resilient Development Bonds	284
8.5.2	Green bonus property policies	286
8.6	Conclusion	288
<b>CHAPTER 9 THE ROLE OF GOVERNMENT AND PUBLIC-PRIVATE INSURANCE SOLUTIONS</b>		<b>290</b>
9.1	Protection gaps revisited	291
9.1.1	Uninsurability	292
9.1.2	Lack of access and appetite	292
9.1.3	Not insuring brown	293

## CONTENTS

9.1.4	Greening insurance	293
9.1.5	Different gaps – different solutions?	294
9.2	Knowledge gaps	295
9.3	Impact underwriting funding gap	297
9.3.1	How do impact insurance funding gaps arise?	297
9.3.2	Solutions to impact underwriting funding gaps	299
9.4	Public-private partnerships	300
9.4.1	What are PPParts?	301
9.4.2	Examples of insurance PPParts	302
9.4.3	PPPpart design for climate change-related risks	307
9.5	Regional risk pooling arrangements and international co-operation	314
9.5.1	Regional risk pools	314
9.5.2	Global initiatives	316
9.6	Conclusion	321
CHAPTER 10 CONCLUSION: INSURERS AS CLIMATE ACTION ENABLERS		322
	Rationales	322
	Climate-related impact underwriting	323
	Climate-related impact investment	324
	Regulatory landscape	325
	Challenges and barriers	327
	Outlook	330
	<i>BIBLIOGRAPHY</i>	333
	<i>INDEX</i>	355