

Contents

Foreword	13
Preface	15
1. Chapter: Revision of the Standardised Approach for Credit Risk	17
1.1 Introduction	17
1.2 General aspects	19
1.2.1 Exposures to sovereigns	21
1.2.2 Exposures to public sector entities	22
1.2.3 Exposures to multilateral development banks	22
1.2.4 Exposures to banks	23
1.2.5 Exposures to corporates	28
1.2.6 Specialised lending	30
1.2.7 Subordinated debt instruments, equity and other capital instruments	32
1.2.8 Retail exposures	33
1.2.9 Exposures secured by real estate/Real estate exposure class	34
1.2.10 Additional risk weights for positions with currency mismatch	51
1.2.11 Off-balance sheet items	52
1.2.12 Defaulted exposures	53
1.2.13 Other assets	54
1.3 Use of external ratings	54
1.3.1 Recognition process for external ratings by national supervisors	54
1.3.2 Mapping of external ratings and use of multiple ratings	56
1.4 Credit risk mitigation techniques	58
1.5 Conclusions	62
Recommended Literature	64
2. Chapter: The Future of the IRB Approach	65
2.1 Introduction of the fundamentals of the IRB Approach (Basel II)	67
2.1.1 A non-quantitative introduction to the IRB risk weight formula	67
2.1.2 The adoption of the IRB Approach	73
2.1.3 Calculation of RWA and EL	74
2.1.4 Minimum conditions for entry and ongoing use	81
2.1.5 Approval and post-approval process: Home/host coordination	88
2.1.6 Decision for application	89
2.2 Basel Committee's initiatives to improve the IRB Approach	90
2.2.1 Introduction	90
2.2.2 Scope of application of internal models	90
2.2.3 Partial use of the IRB Approach	94
2.2.4 Risk parameter floors as an instrument of RWA variability reduction	97

2.2.5	Parameter estimation practices	99
2.2.6	Expected impact on banks	102
2.2.7	Conclusion	106
2.3	EBA regulatory reform and the revised supervisory assessment methodology	107
2.4	Definition of Default	109
2.4.1	Past-due criterion in the definition of default	111
2.4.2	Indications of unlikeliness to pay	113
2.4.3	Application of the definition of default in external data	117
2.4.4	Consistency of the application of default definition	118
2.4.5	Application of default definition for retail exposures	118
2.4.6	Criteria for the return to the non-defaulted status	119
2.4.7	Materiality thresholds	120
2.4.8	Implementation of changes	121
2.4.9	Impact of new default definition on RWA	122
2.5	Risk estimates	122
2.5.1	Margin of Conservatism (MoC)	124
2.5.2	Rating philosophy	125
2.5.3	Calculation of one-year and long-run average default rates	126
2.5.4	Treatment of multiple defaults	128
2.5.5	Treatment of unresolved cases in LGD estimation	129
2.5.6	Treatment of defaulted exposures	130
2.5.7	Downturn adjustment of LGD and CF estimates	134
2.5.8	Conclusion	134
2.6	ECB's targeted review of internal models (TRIM)	135
	Recommended Literature	138
3.	Chapter: The New Standardised Approach for measuring Counterparty Credit Risk (SA-CCR)	139
3.1	Counterparty credit risk	139
3.1.1	Definition of counterparty credit risk	139
3.1.2	Measuring counterparty credit risk in the EU	139
3.1.3	Background and motives for introducing the SA-CCR approach	141
3.2	Side note: Calculating EAD with the current exposure method	141
3.3	Measurement of counterparty credit risk according to SA-CCR	145
3.3.1	Exposure at Default	145
3.3.2	Current replacement cost	145
3.3.3	Potential future exposure	147
3.3.4	Calculation example: EAD determination under SA-CCR	158
3.4	Use of simplified approaches	159
3.4.1	Simplified SA-CCR	160
3.4.2	Revised original exposure method	161
3.5	Expected impact on the banking industry	161
	Recommended Literature	162

4. Chapter: The new securitisation framework	163
4.1 Introduction	163
4.2 The securitisation framework under Basel II	164
4.2.1 Scope and definitions	164
4.2.2 Exclusion of securitised exposure from the calculation of risk-weighted exposure amount	165
4.2.3 Treatment of securitisation exposures	167
4.3 Revisions to the securitisation framework under Basel IV	168
4.3.1 Criticism of the existing rules	168
4.3.2 New approaches and a revised hierarchy for the determination of risk-weighted exposure amounts	171
4.3.3 Risk weights for securitisation positions when complying with STC criteria	184
4.4 General Conclusions	189
Recommended Literature	190
5. Chapter: Capital Requirements for Bank's Equity Investments in Funds	193
5.1 Overview	193
5.2 Trading book vs banking book boundary	194
5.3 Own funds requirements for funds in the banking book	195
5.3.1 Scoping and hierarchy of approaches	195
5.3.2 Funds under the standardised approach	196
5.3.3 Funds under the internal ratings-based approach (IRB)	199
5.3.4 Leverage adjustment under the LTA and the MBA	200
5.3.5 Treatment of funds that invest in other funds (target funds, fund of funds)	201
5.4 Summary and conclusion	202
Recommended Literature	203
6. Chapter: Fundamental Review of the Trading Book: A New Age for Market Risks .	207
6.1 Introduction	207
6.2 Revised trading book boundary	208
6.2.1 Revised boundary of the trading and banking books	209
6.2.2 Reallocation of positions between books	212
6.2.3 Internal risk transfer	213
6.2.4 Example for national implementation: Boundary requirements and thresholds in the EU	214
6.3 The revised standardised approach for market risks	215
6.3.1 Linear and non-linear price risks	217
6.3.2 Default risk charge	229
6.3.3 Residual risk add-on	230
6.3.4 Simplified alternative to the standardised approach	231
6.3.5 Example for national implementation: The implementation of the SBA in the EU	233

6.4	Internal Models Approach for market risk (IMA-TB)	235
6.4.1	Regulatory background and goals	235
6.4.2	Procedural and organisational challenges	236
6.4.3	Methodological amendment	237
6.4.4	Impact on capital requirements	248
6.5	Business implications and impact in the financial markets	251
6.5.1	Market microstructure	252
6.5.2	The competitive landscape	253
6.5.3	Possible solutions and workarounds	254
6.6	Optimisation considerations	256
6.6.1	Selective IMA – general aspects	257
6.6.2	Example I: Diversification benefit realisation	258
6.6.3	Example II: Optimisation of risk factors	258
6.7	Conclusions	259
	Recommended Literature	262
7.	Chapter: CVA Risk Capital Charge Framework	265
7.1	Credit Valuation Adjustment	265
7.1.1	Definition of the term “Credit Valuation Adjustment”	265
7.1.2	Background of the regulatory CVA	266
7.1.3	Revision of the CVA framework	267
7.1.4	Hierarchy of approaches	269
7.2	FRTB-CVA framework	270
7.2.1	Regulatory requirements for the application of the FRTB-CVA framework	270
7.2.2	Exposure value for the FRTB-CVA	272
7.2.3	Standardised approach for CVA (SA-CVA)	273
7.3	Basic CVA framework	277
7.3.1	Side note: Calculation of the CVA Risk Capital Charge under the current standardised method according to Basel III	277
7.3.2	Regulatory requirements for the application of the basic CVA framework	280
7.3.3	Exposure value for the basic CVA	280
7.3.4	Determination of regulatory capital requirements based on the basic CVA framework	281
7.4	Additional aspects and expected effects	285
	Recommended literature	286
8.	Chapter: Operational Risk	289
8.1	Introduction	289
8.2	Current methods pursuant to Basel II	290
8.2.1	Basic Indicator Approach and Standardised Approach	290
8.2.2	Advanced Measurement Approaches	292
8.2.3	Criticism of the existing approaches	293

8.3 Overview: From Basel II to Basel IV	293
8.4 Standardised Approach for operational risk (BCBS 424)	294
8.4.1 Methodology of the SA	294
8.4.2 Minimum standards for the use of loss data	301
8.5 Future impact	302
8.5.1 Capital requirements for OpRisk	302
8.5.2 Practical considerations	302
8.5.3 Disclosure	303
8.6 Conclusion	303
Recommended Literature	305
9. Chapter: Capital Floors	307
9.1 Introduction	307
9.2 Reasons for the new capital floor	309
9.3 Basel IV Capital Floor	312
9.3.1 Capital Floors in Basel I and II	313
9.3.2 Calculation of the floor	317
9.3.3 Transitional Cap Rules	318
9.3.4 Choice of which standardised approach	320
9.3.5 Global implementation	320
9.4 Interactions and interdependencies to other Basel IV rules	321
9.4.1 Overview of the goals and quantitative impact of the capital floor and other Basel IV changes	323
9.4.2 Impact of the capital floor on the standardised approaches and their implementation	324
9.4.3 Optimisation of the standardised approaches	325
9.4.4 Impact of the capital floor on pricing models	327
9.4.5 Relationship between the capital floor and the scope of application of the IRB Approach	331
9.5 Conclusions	332
Recommended Literature	333
10. Chapter: New Basel Framework for Large Exposures	335
10.1 Background	335
10.2 Scope	336
10.3 Large exposure limits	336
10.4 Eligible capital	338
10.5 Counterparties and connected counterparties	339
10.6 Definition of exposure	341
10.7 Assessment base	342
10.7.1 On and off-balance sheet items in the banking book	342
10.7.2 Counterparty risk	342
10.7.3 Trading book items	343
10.8 Recognition of credit risk mitigation	343

10.9 Exemptions	345
10.10 Look-through of funds and securitisations	347
10.11 Regulatory reporting	350
10.12 Implementation of the updated framework in the CRR II	350
10.13 Summary	351
Recommended Literature	354
11. Chapter: Disclosure	357
11.1 Introduction	357
11.2 Disclosure guidelines	358
11.3 Risk management, key prudential metrics and risk-weighted assets (RWA)	362
11.4 Linkages between financial statements and regulatory exposures	365
11.5 Composition of capital and TLAC	368
11.6 Macroprudential supervisory measures	371
11.7 Leverage Ratio	372
11.8 Disclosures related to liquidity	373
11.9 Credit risk	378
11.9.1 General information on credit risk	380
11.9.2 Credit risk mitigation	383
11.9.3 Credit risk under the standardised approach	384
11.9.4 Credit risk under the IRB Approach	385
11.10 Counterparty credit risk	386
11.11 Securitisation	390
11.12 Market risk	391
11.13 Interest rate risk in the banking book	399
11.14 Remuneration	400
11.15 Benchmarking	402
11.16 Operational risk	403
11.17 Credit valuation adjustments	406
11.18 Asset encumbrance	407
11.19 European implementation	408
11.19.1 European implementation of phase I	408
11.19.2 European implementation of phase II	410
11.20 Conclusions and expected effects	410
Recommended Literature	412
12. Chapter: Interest Rate Risk in the Banking Book (IRRBB)	415
12.1 Introduction	415
12.2 Principles for treatment within the framework of Pillar 2	416
12.2.1 Definitions	416
12.2.2 The twelve Principles for the management of IRRBB	416
12.2.3 Interest rate shock scenario design	419
12.2.4 The EBA guidelines on the management of interest rate risk arising from non-trading book activities	420

12.2.5 Similarities and differences between the BCBS Principles and the EBA Guidelines	421
12.3 The Standardised Framework	423
12.3.1 Introduction	423
12.3.2 Assigning positions to time buckets	424
12.3.3 Estimating the impact on EVE	426
12.3.4 Calculation of minimum capital requirements	427
12.4 Conclusion and outlook	427
Recommended literature	428
13. Chapter: TLAC and MREL – The Extension of the Regulatory Capital	
Definition and the Scope of Supervision	429
13.1 Background	429
13.2 TLAC	431
13.2.1 TLAC implementation	431
13.2.2 TLAC calibration	431
13.2.3 TLAC eligible instruments	431
13.2.4 Resolution entities and internal TLAC	432
13.2.5 TLAC holdings	433
13.2.6 TLAC-Reporting	435
13.2.7 TLAC disclosure	436
13.3 MREL	437
13.3.1 MREL implementation at EU level	437
13.3.2 MREL calibration	439
13.3.3 Resolution entities and internal MREL	445
13.3.4 MREL holdings	446
13.3.5 MREL reporting	446
13.3.6 MREL disclosure	448
13.4 Outlook and summary	448
Recommended Literature	450
14. Chapter: Strategic Implications	453
14.1 Introduction	453
14.2 The capital squeeze	453
14.2.1 RWA impact	453
14.2.2 Impact on capital	455
14.3 How to cope with Basel IV – Strategic implications	458
14.3.1 Capital management	459
14.3.2 Portfolio composition	460
14.3.3 Product structure	462
14.3.4 Operations	462
14.4 Conclusion	463