

PROJECT FINANCE

TABLE OF CONTENTS

Preface

1.	Purpose of the Text	iii
2.	Format and Content	iv
3.	Acknowledgements	v

Introduction — Project Finance: What, Why, When, Where, and How

1.	Introduction	vii
2.	Purpose of Project Finance	ix
3.	What is Project Finance	x
4.	Why Use Project Finance	xii
5.	When is Project Finance Suitable	xiii
6.	Where is Project Finance Available	xiv
7.	How Does Project Finance Work	xiv
8.	Issues and Solutions in Project Finance	xvi
9.	Sources for Project Finance	xvii
10.	Dictionary of Project Finance Terms	xxi

Chapter 1 Defining Project Finance

1.	Basic Concepts for Project Finance	1
2.	Risk Mitigation in Project Finance	16
3.	Key Structure Concepts	21
4.	Bond Offering Structures	25
5.	Remedies and Rights	26

Chapter 2 Project Finance Fundamentals

1.	Basic Issues to be Considered	29
2.	Structuring Considerations	33
3.	Construction Period Roles and Participants	38
4.	Timing Risk Issues	41
5.	Security in Project Finance — Collateral	42
6.	Transaction Steps in Project Finance	47
7.	Diligence Requirements in Project Finance	53
8.	Choice of Jurisdiction	54

PROJECT FINANCE IN CANADA

Chapter 3 Project Finance Structures

1.	Introduction	57
2.	Structuring Requirements Post-Credit Crisis of 2008.....	62
3.	Sophisticated Structures in Project Finance.....	64
	(a) Synthetic Structures	66
	(b) Credit Wrap Structures.....	68
	(c) Credit Substitution Requirements	70
4.	Documentation for Project Finance	76
	(a) Guarantee Assurance Agreement (For Credit Wrap Structures)	76
	(b) Guarantee.....	79
	(c) Completion Guarantee.....	80
	(d) Collateral Agency Agreement.....	80
	(e) Administration Agreement.....	83
5.	Considerations for Selecting Project Finance Structures	84
6.	Special Purpose Entity Requirements.....	87

Chapter 4 Credit Agreement Terms in Project Finance

1.	Introduction	93
2.	Representations and Warranties in Project Finance.....	94
3.	Conditions Precedent to Closing	104
4.	Conditions Precedent to a Drawdown.....	111
5.	Covenants in Project Finance	115
6.	Specialized Covenants for Project Finance	118
7.	Negative Covenants in Project Finance	130
8.	Events of Default in Project Finance	133
9.	Schedules to the Project Finance Credit Agreement	137
10.	Exhibits to the Project Finance Credit Agreement.....	138
11.	Definitions in the Project Finance Credit Agreement	138

Chapter 5 Useful Emerging Concepts in Credit Documents

1.	Introduction	145
2.	Exchange of Information Concepts	145
3.	Derivatives and their Role in Project Finance	146
4.	Defining Debt in Project Finance.....	147
5.	Equity Cure Rights.....	148
6.	Borrower Representatives	149
7.	Accounting, Costs, and Budgets.....	149

Chapter 6 Remedies and Disputes

1.	Introduction	153
2.	Enforcement of Security in Project Finance	155

TABLE OF CONTENTS

3.	Dispute Resolution in Project Finance	157
4.	Jurisdiction Choices	158
	(a) Treatment of Property and Security Interests	159
	(b) Financial Controls	160
	(c) Government Involvement	160
	(d) Environmental Control	160
	(e) Dispute Resolution	161
	(f) Final Considerations	161
5.	Issues and Challenges	161
Chapter 7 Documentation Best Practices		
1.	Commitment Letters in Project Finance	163
2.	Diligence Deliveries in Project Finance	165
3.	Environmental Reports and Materials in Project Finance	166
4.	Reports and Opinion in Project Finance	167
5.	The Closing Agenda in Project Finance	168
6.	Know Your Customer Requirements	170
7.	Perfection Certificates	172
8.	Financial Covenants in Project Finance	174
9.	Land Rights in Project Finance	179
10.	<i>Force Majeure</i> Clauses	181
Chapter 8 Project Finance Terminology		
1.	Introduction	185
2.	Acknowledgement and Consent	185
3.	Annual Management Plan	186
4.	Commercial Operation	186
5.	Commissioning	187
6.	Cost to Complete	188
7.	Demobilization	190
8.	Environmental Liabilities	190
9.	Industry Practice	191
10.	Independent Engineer and Other Consultants	193
11.	Maintenance Costs	193
12.	Project Costs	196
Chapter 9 Revenue Sources in Project Finance		
1.	Introduction — Basic Principles of Revenue Requirements ...	199
2.	Revenue Documentation	201
3.	Sinking Funds	204
4.	Equity Support	205

PROJECT FINANCE IN CANADA

5. Tolling as a Revenue Source..... 207
6. Public Sector Grants..... 209
7. Leases and Purchases..... 211

Chapter 10 Risk Requirements and Solutions

1. Identifying General and Specific Project Risk 213
 (a) Timelines 213
 (b) Completion to Specifications to Reach
 Commercial Viability 213
 (c) Aboriginal Rights 214
 (d) Supply 214
 (e) Environmental Risk 214
 (f) Legal Rights 215
 (g) Permits 215
 (h) Safety and Soundness 215
 (i) Access 216
 (j) Historic Sites 216
 (k) Cost Escalation..... 216
 (l) Priming Claims 216
 (m) Documentation Risk..... 217
 (n) Revenue Sources..... 217
 (o) Payment Interruption..... 217
 (p) Security 218
 (q) Regulation..... 218
 (r) Currency Risk 218
 (s) Interest Rate Risk..... 218
 (t) Design and Building Material Risk 219
 (u) Solicitation Phase: Pre-Qualifying Bidders..... 219
 (v) Contract Terms to Manage Risk..... 220
 (w) Environmental Remediation 220
 (x) Owner-Caused Delay 220
 (y) Design-Build Contracts..... 221
 (z) Electronic Records..... 221
 (aa) Dispute Boards..... 222
 (bb) Take Out Funding Risk..... 222
 (cc) Operation and Maintenance Risk 222
2. Completion Risk..... 223
3. Punch List and Demobilization..... 227
4. Permitting Issues and Requirements..... 228
5. Liens and Holdbacks 232
6. Interest Rate Risk..... 233
7. Construction Risk..... 234

TABLE OF CONTENTS

8.	Environmental Risk and Covenants.....	236
9.	Sufficiency of Land Rights.....	240
10.	Lender Rights to Material Contracts	242
11.	Infrastructure — Key Risk Factors and Mitigants	245

Chapter 11 Insurance for Project Finance

1.	Introduction	249
2.	Construction Period Insurance.....	249
3.	Errors and Omissions Insurance	254
4.	Operational Period Insurance.....	255
5.	Business Interruption Insurance	257
6.	Environmental Liability Insurance	260
7.	Political Risk Insurance	261
8.	Terrorism Insurance	262
9.	Flood, Earthquake, and Hurricane Insurance	264
10.	Insurance Diligence.....	267

Chapter 12 Change Orders and Cost Overruns

1.	Introduction	273
2.	Identifying and Controlling Change Orders	275
3.	Causes of Change Orders.....	277
4.	Construction Rights to Monitor Change Orders	278
5.	Sponsor Equity Contribution to Provide Funds for Changes.....	280
6.	Cost to Complete and Cost Control.....	281

Chapter 13 Environmental Considerations in Project Finance

1.	Introduction	285
2.	Regulatory Jurisdictions and Issues.....	287
3.	The Environmental Assessment Process	287
4.	Environmental Representations, Warranties, and Covenants.....	292
5.	Environmental Reports and Studies.....	295
6.	The Effect of Environmental Remediation	298
7.	Environmental Questionnaire and Indemnity	300

Chapter 14 Aboriginal Rights

1.	Introduction	313
2.	Establishment of Aboriginal Title	316
3.	Duty to Consult and Accommodate.....	317
4.	Process for Aboriginal Consultation	318
5.	Aboriginal Claims.....	321

PROJECT FINANCE IN CANADA

Chapter 15 Regulation in Project Finance

1.	Introduction — Specific Regulation	325
2.	Health and Safety Regulation	325
3.	Transportation Regulation.....	326
4.	Power Generation and Transmission Regulation.....	328
5.	Natural Resource Development	329
6.	Mining Industry Regulation.....	330
7.	Heritage Regulation.....	333
8.	Restriction on Foreign Investment	334
9.	Immigration Restrictions	335
10.	Importation Restrictions.....	335

Chapter 16 Independent Consultants

1.	The Role of an Independent Engineer in Project Finance.....	337
2.	Engineer Reports in Project Finance.....	338
3.	Engineering Tools to Assess Projects	339
4.	Scope of Work for the Independent Engineer in Project Finance	343
5.	Contrasting to the Role of the Project Engineer.....	349
6.	Independent Engineer Contract Review in Project Finance ...	352
7.	Independent Insurance Consultant.....	353
8.	Independent Quantity Surveyor	355
9.	Financial Advisor to Lenders.....	356

Chapter 17 Completion, Commissioning, and Turnover of Project

1.	Commissioning	359
2.	Completion.....	362
3.	Turnover	365
4.	Role of the Independent Engineer in Certifying Commissioning, Completion, and Turnover	366

Chapter 18 Access to Finance Markets in Canada

1.	Introduction	369
2.	Accessing the Canadian Public Debt Markets	372
3.	Financing Structure Considerations	375
4.	Public Bond Issuance Documentation	380
5.	Risk Assessment for Debt Issuance.....	382
6.	Public Debt Markets in Canada: Size, Scope, and Quality	384
7.	Exempt Market Offerings	388
8.	Private Debt Market in Canada.....	392
9.	Market Based Finance Tools	396
	(a) Using Credit Substitution for Rating	396

TABLE OF CONTENTS

	(b) Hedging Support in Project Finance	398
	(c) Sequenced Bonds	400
Chapter 19 Public Participation		
1.	Introduction	403
2.	Public Procurement.....	403
	(a) Federal Regulatory Framework	403
	(b) Provincial and Municipal Regulatory Frameworks	406
	(c) Public Procurement Procedures.....	408
3.	Public/Private Partnerships	410
	(a) PPP Overview	410
	(i) The Canadian PPP Marketplace	410
	(ii) Defining a Public/Private Partnership	411
	(iii) Distinguishing a PPP from Traditional Project Finance.....	412
	(b) PPP Delivery Models.....	413
	(i) The Design-Build Model.....	413
	(ii) The Design-Build-Finance Model.....	414
	(iii) The Design-Build-Finance-Maintain Model.....	414
	(iv) The Design-Build-Finance-Operate-Maintain Model.....	415
	(v) Alternative Services Delivery Model.....	415
	(c) Identifying when a PPP Procurement Model is Appropriate.....	416
	(d) The PPP Procurement Process	416
4.	Types and Structures of Available Public Financial Assistance.....	419
	(a) Overview	419
	(b) Loans/Grants/Cash Advances	420
	(c) Loan Guarantee Programs.....	422
	(d) Tax Refunds and Credits	423
	(e) Taking Advantage of Public Assistance Opportunities.....	424
5.	Lending to Public Entities.....	425
Chapter 20 Railcars and Rail Transportation		
1.	Introduction	427
2.	Financing in the Rail Industry	427
3.	Collateral/Security in the Rail Industry.....	429
	(a) Canada.....	429

PROJECT FINANCE IN CANADA

	(b) United States	430
	(c) Reciprocity	430
	(d) Primary vs. Secondary Documents.....	431
	(e) Searches.....	431
4.	Insurance Requirements in the Rail Industry	432
5.	Safety Regulations in the Rail Industry	433
6.	Insolvency Issues in the Rail Industry.....	433
	(a) United States.....	434

Chapter 21 Professional Sports and Project Finance

1.	Introduction	437
2.	Interested Parties	438
3.	Designing the Facilities.....	440
4.	Sources of Financing	441
5.	Venue Investment Considerations	443
6.	Revenue Sources at Sporting Venues	444
7.	League Rules and Financing.....	445
8.	Ownership and Financing Structure of a Sports Team	447
9.	Case Studies	447
	(a) Minnesota Vikings' New Stadium.....	447
	(b) Montreal's Saint-Laurent Borough Multi-Sports Complex	448
	(c) Pan Am Games	448

Chapter 22 Entertainment Facilities and Project Finance

1.	Festivals and Festival Sites	451
2.	Revenue Streams for Festivals	451
3.	Financing for Festivals	451
4.	Collateral/Security from Festivals	452
5.	The Role of Sponsors in Festivals.....	453
6.	Case Study: Montreal Jazz Festival.....	454
7.	Challenges for Festivals	454

Chapter 23 Broadcast — Film and Game Industry Project Finance

1.	Introduction	459
2.	Identifying and Evaluating Project Risks	459
3.	Key Parties in Broadcast Projects	459
4.	Financing Broadcast Projects.....	459
5.	Collection Agreements in Broadcast Projects	466
6.	Completion Guarantees in Broadcast Projects.....	466
7.	Pledge Holder Agreements in Broadcast Projects	467
8.	Alternate Finance Sources in Broadcast Projects.....	467

TABLE OF CONTENTS

Chapter 24 Financing a Mining Project

1. Mining Credit Agreements — Specialized Clauses..... 469
 - (a) Perceived Risks in Mining Projects 469
 - (b) Representations, Warranties, and Covenants in Mining Projects 470
 - (c) Documentation and Security in Mining Project Financing 472
 - (i) Security 472
 - (ii) Direct Agreements 473
 - (iii) Political Risk and Insurance 473
 - (iv) Hedging..... 474
2. Mining Debt in the Canadian Markets 474
3. Specialized and Synthetic Structures 478

Chapter 25 Highway Projects

1. Public/Private Partnership Project Agreements for Highways..... 483
2. Risk Allocation During Construction 484
3. Integration Issues and Tolling..... 487
4. Completion Payments..... 490

Chapter 26 Bridge Projects

1. Purpose of Project Finance Funding 493
2. Collateral/Security Bridge Projects 494
3. Ownership Complications 496
4. Timing Risks 497
5. Diligence for Bridge Projects..... 498
6. Specialized Terms for Bridge Projects 499
7. Specialized Covenants for Bridge Projects..... 504

Chapter 27 Renewable Energy — Solar, Wind, and Biomass Projects

1. Power Projects — General Concepts..... 507
2. Wind Power Projects 508
3. Solar Power Projects..... 512
4. Biomass Power Projects 517
5. Credit Agreement Terms for Renewable Energy..... 519

Chapter 28 Large Scale Energy — Hydroelectric and Nuclear Power Projects

1. Features of Larger Scale Power Projects 525
2. Project Characteristics — Hydroelectric Power Projects 527
3. Project Characteristics — Nuclear Energy Projects..... 533
4. Large Scale Power Project Standards and Triggers..... 535

PROJECT FINANCE IN CANADA

- 5. Completion Risk Considerations..... 539
- 6. Commercialization and Take Out Risk 541
 - (a) Power Purchase Agreements 542

Chapter 29 Syndicated Loans in Project Finance

- 1. What is a Syndicated Loan?..... 543
- 2. Inter-Lender Considerations 543
- 3. Standard Form Documentation 549
- 4. Syndications and Participations 555
- 5. Agent Roles and Responsibilities 558

Chapter 30 Regulatory Issues in Project Finance

- 1. Introduction 567
- 2. Financial Institution Regulation for Anti-Money Laundering and Anti-Terrorism — Know Your Client 568
- 3. Anti-Bribery 571
- 4. Suspicious Transactions Reporting Regulation..... 573
- 5. Politically Exposed Persons..... 574
- 6. Regulatory Terms in Credit Agreements 575
- 7. Foreign Assets Control 578
- 8. Cyber Security Issues in Project Finance 586
- 9. Compliance with Privacy Laws and Regulations 591

Chapter 31 Intellectual Property Requirements in Project Finance

- 1. Introduction 597
- 2. Definitions..... 597
- 3. Representations and Warranties..... 599
- 4. Expanded Representations and Warranties for Intellectual Property Industry Projects 601

Chapter 32 Industry Specific Issues for Lenders

- 1. Overview 611
- 2. Common Issues 611
 - (a) Overall Risk 612
 - (b) Construction and Completion Risk..... 612
 - (c) Cost Overruns 613
 - (d) Operational Risk 613
 - (e) Supply Risk..... 613
 - (f) Offtake (Revenue) Risk 614
 - (g) Legal Risk 614
 - (h) Environmental Risk 614
 - (i) Political Risk 615

TABLE OF CONTENTS

	(j) Currency Risk	615
	(k) Authorizations and Approvals	616
	(l) Security	616
3.	Specific Issues.....	616
	(a) Airports and Air Transportation.....	617
	(b) Highways and Bridges	618
	(c) Ports and Water Bridges.....	620
	(d) Hydroelectric Power	620
	(e) Social Housing	623
	(f) Waste Management Facilities.....	624
	(g) Water Processing	625
	Index	627

