

Wiley Finance Series



Accounting for Derivatives

Advanced Hedging under IFRS 9

Second Edition

JUAN RAMIREZ



WILEY

*For other titles in the Wiley Finance series
please see www.wiley.com/finance*

Accounting for Derivatives

*Advanced Hedging
under IFRS 9*

Second Edition

JUAN RAMIREZ

WILEY

This edition first published 2015

© 2015 Juan Ramirez

First edition published 2007 by John Wiley & Sons, Ltd.

Registered office

John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom

For details of our global editorial offices, for customer services and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit www.wiley.com.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with the respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. It is sold on the understanding that the publisher is not engaged in rendering professional services and neither the publisher nor the author shall be liable for damages arising herefrom. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Library of Congress Cataloging-in-Publication Data

Ramirez, Juan.

Accounting for derivatives : advanced hedging under IFRS 9 / Juan Ramirez. – Second edition.

pages cm. – (The wiley finance series)

Includes bibliographical references and index.

ISBN 978-1-118-81797-1 (hardback)

1. Financial instruments–Accounting–Standards. 2. Derivative securities–Accounting. 3. Hedging (Finance)–Accounting. I. Title.

HF5681.F54R35 2015

657'.7–dc23

2014045650

Cover Design: Wiley

Top Image: ©iStock.com/nikada

Bottom Image: ©iStock.com/doockie

Set in 10/12pt Times by Laserwords Private Limited, Chennai, India

Printed in Great Britain by TJ International Ltd, Padstow, Cornwall, UK

To my wife Marta and our children Borja, Martuca and David

Table of Contents

Preface

xxi

CHAPTER 1

The Theoretical Framework – Recognition of Financial Instruments

1

1.1 Accounting Categories for Financial Assets	2
1.1.1 Financial Asset Categories	2
1.1.2 Financial Assets at Amortised Cost	2
1.1.3 Financial Assets at Fair Value through Other Comprehensive Income	6
1.1.4 Financial Assets at Fair Value through Profit or Loss	6
1.1.5 Financial Assets – Initial and Subsequent Recognition	6
1.1.6 Reclassifications	10
1.2 The Amortised Cost Calculation: Effective Interest Rate	11
1.2.1 Example of Effective Interest Rate Calculation – Fixed Rate Bond	12
1.2.2 Effective Interest Rate Calculation – Floating Rate Debt	13
1.3 Examples of Accounting for Fixed Rate Bonds	14
1.3.1 Example of a Fixed Rate Bond at Amortised Cost	14
1.3.2 Example of a Fixed Rate Bond Recognised at FVOCI	15
1.4 Accounting Categories For Financial Liabilities	16
1.4.1 Financial Liability Categories	16
1.4.2 Partial Repurchases of Financial Liabilities	17
1.4.3 Changes in Credit Risk in Financial Liabilities at FVTPL	17
1.5 The Fair Value Option	19
1.6 Hybrid And Compound Contracts	19
1.6.1 Embedded Derivatives in Assets or Liabilities – Hybrid Instruments	19
1.6.2 Liability Compound Instruments	22

CHAPTER 2

The Theoretical Framework – Hedge Accounting

23

2.1 Hedge Accounting – Types of Hedges	23
2.1.1 Derivative Definition	23
2.1.2 Hedge Accounting	24
2.1.3 Accounting for Derivatives	25

vii

2.1.4 Undesignated or Speculative	25
2.2 Types of Hedges	25
2.2.1 Fair Value Hedge	25
2.2.2 Cash Flow Hedge	27
2.2.3 Net Investment Hedge	29
2.3 Hedged Item Candidates	30
2.3.1 Hedged Item Candidates	30
2.3.2 Forecast Transaction versus Firm Commitment	35
2.4 Hedging Instrument Candidates	36
2.5 Hedging Relationship Documentation	37
2.6 Hedge Effectiveness Assessment	39
2.6.1 Qualifying Criteria for Hedge Accounting	39
2.6.2 Hedge Ratio	40
2.6.3 Effectiveness Assessment	41
2.6.4 Effectiveness Assessment Methods	41
2.6.5 The Critical Terms Method	42
2.6.6 The Simple Scenario Analysis Method	42
2.6.7 The Regression Analysis Method	44
2.6.8 The Monte Carlo Simulation Method	46
2.6.9 Suggestions Regarding the Assessment Methods	47
2.7 The Hypothetical Derivative Simplification	48
2.8 Rebalancing	49
2.8.1 Accounting for Rebalancings	50
2.9 Discontinuation of Hedge Accounting	53
2.10 Options And Hedge Accounting	57
2.10.1 Intrinsic Value versus Time Value	57
2.10.2 In-, At- or Out-of-the-Money	59
2.10.3 Accounting Treatment for the Time Value of Options	59
2.10.4 Example of Option Hedging a Transaction Related Item – Actual Time Value Exceeding Aligned Time Value	62
2.10.5 Example of Option Hedging a Transaction Related Item – Actual Time Value Lower Than Aligned Time Value	63
2.10.6 Example of Option Hedging a Time-Period Related Item – Actual Time Value Exceeding Aligned Time Value	65
2.10.7 Example of Option Hedging a Time-Period Related Item – Actual Time Value Lower Than Aligned Time Value	67
2.10.8 Written Options	69
2.11 Forwards and Hedge Accounting	70

CHAPTER 3

Fair Valuation – Credit and Debit Valuation Adjustments

71

3.1 Fair Valuation – Overview of IFRS 13	71
3.1.1 Definition of Fair Value	72
3.1.2 Fair Value Hierarchy	74
3.1.3 Level 1 Financial Instruments	74
3.1.4 Level 2 Financial Instruments	75
3.1.5 Level 3 Financial Instruments	76
3.1.6 Mid-to-Bid and Mid-to-Offer Adjustments	77

3.1.7	Credit and Debit Valuation Adjustment	78
3.1.8	Funding Valuation Adjustment	78
3.1.9	Model Uncertainty Adjustment	79
3.1.10	Day 1 Profit (or Loss)	79
3.2	Case Study – Credit Valuation Adjustment of an Interest Rate Swap	80
3.2.1	Simple One-Period Model of Default	80
3.2.2	Working Example of CVA in a Swap	82
3.2.3	Debit Valuation Adjustments	86
3.2.4	Combining CVA and DVA	86
3.2.5	Calculating CVA and DVA Using Monte Carlo Simulation	87
3.3	Overnight Index Swap Discounting	95

CHAPTER 4

An Introduction to Derivative Instruments **97**

4.1	FX Forwards	97
4.1.1	Product Description	97
4.1.2	Forward Points	99
4.2	Interest Rate Swaps	99
4.2.1	Product Description	99
4.2.2	IFRS 9 Accounting Implications	101
4.3	Cross-Currency Swaps	102
4.3.1	Product Description	102
4.3.2	IFRS 9 Accounting Implications	104
4.4	Standard (Vanilla) Options	105
4.4.1	Product Description	105
4.4.2	Standard Equity Options	105
4.4.3	Standard Foreign Exchange Options	111
4.4.4	Interest Rate Options – Caps, Floors and Collars	115
4.5	Exotic Options	118
4.6	Barrier Options	119
4.6.1	Knock-out Barrier Options – Product Description	119
4.6.2	Knock-in Barrier Options – Product Description	120
4.7	Range Accruals	121

CHAPTER 5

Hedging Foreign Exchange Risk **123**

5.1	Types of Foreign Exchange Exposure	123
5.2	Introductory Definitions	124
5.2.1	Functional Currency and Presentation Currency	124
5.2.2	Relevant Dates in an FX Transaction	125
5.3	Summary of IAS 21 Translation Rates	125
5.3.1	Monetary versus Non-monetary Items	125
5.3.2	Translation Rates	125
5.4	Foreign Currency Transactions	126
5.4.1	Summary of Most Commonly Used FX Derivatives	126

5.5 Case Study: Hedging A Forecast Sale and Subsequent Receivable with an FX Forward (Forward Element Included in Hedging Relationship)	128
5.5.1 Background	128
5.5.2 Setting the Hedging Relationship Term	128
5.5.3 Hedging Relationship Documentation	131
5.5.4 Hedge Effectiveness Assessment – Hypothetical Derivative	132
5.5.5 Hedge Effectiveness Assessment Performed at Hedge Inception	133
5.5.6 Fair Valuation of Hedged Item and Hypothetical Derivative at the Relevant Dates	134
5.5.7 Accounting Entries – Hedge Objective Unchanged: No Discontinuation	136
5.5.8 Accounting Entries – Hedge Risk Management Objective Changed: Discontinuation	139
5.6 Case Study: Hedging a Forecast Sale with an FX Forward	141
5.6.1 Setting the Hedging Relationship Term	142
5.6.2 Hedging Relationship Documentation	143
5.6.3 Hedge Effectiveness Assessment	143
5.6.4 Hedge Effectiveness Assessment Performed at Hedge Inception	145
5.6.5 Fair Valuation of Hedged Item and Hypothetical Derivative at the Relevant Dates	146
5.6.6 Accounting Entries When the Forward Element is Included in the Hedging Relationship	147
5.6.7 Accounting Election When the Forward Element is Excluded from the Hedging Relationship	151
5.6.8 Accounting When the Forward Element is Excluded from the Hedging Relationship and Recognised in Profit or Loss	151
5.6.9 Accounting When the Forward Element is Excluded from the Hedging Relationship and Aligned Portion Temporarily Recognised in OCI	156
5.6.10 Final Remarks: Inclusion versus Exclusion of the Forward Element	162
5.7 Case Study: Hedging a Forecast Sale and Subsequent Receivable with a Tunnel	163
5.7.1 Hedging Relationship Documentation	166
5.7.2 Hedge Effectiveness Assessment	167
5.7.3 Hedge Effectiveness Assessment Performed at Hedge Inception	168
5.7.4 Fair Valuation of Hedged Item and Hypothetical Derivative at the Relevant Dates	170
5.7.5 Calculation of Effective and Ineffective Amounts	173
5.7.6 Accounting Entries	175
5.7.7 Accounting Entries – Discontinuation by Changing Risk Management Objective	178
5.7.8 Final Remarks	180
5.8 Case Study: Hedging A Forecast Sale and Subsequent Receivable with a Participating Forward	180
5.8.1 Participating Forward Hedge Accounting Issues	182
5.8.2 Alternative 1: Participating Forward Split into a Forward and an Option	182
5.8.3 Alternative 2(a): Participating Forward in its Entirety	201

5.8.4 Alternative 2(b): Participating Forward in its Entirety – Readjusting the Hedge Ratio	211
5.9 Case Study: Hedging a Highly Expected Foreign Sale with a Knock-In Forward (Introduction)	222
5.9.1 Accounting Optimisation of the Knock-in Forward	225
5.10 Case Study: Hedging a Forecast Sale And Subsequent Receivable with a Knock-In Forward (Splitting Alternative)	226
5.10.1 Terms of the Split into a Forward and a Knock-out Option	227
5.10.2 Hedging Relationship Documentation	228
5.10.3 Hedge Effectiveness Assessment	229
5.10.4 Hedge Effectiveness Assessment Performed at Hedge Inception	231
5.10.5 Fair Valuations of Derivative Contracts and Hypothetical Derivative at the Relevant Dates	233
5.10.6 Calculation of Effective and Ineffective Amounts	234
5.10.7 Accounting Entries	235
5.11 Case Study: Hedging A Forecast Sale and Subsequent Receivable with a Knock-In Forward (Instrument In Its Entirety)	238
5.11.1 Hedging Relationship Documentation	238
5.11.2 Hedge Effectiveness Assessment	239
5.11.3 Hedge Effectiveness Assessment Performed at Hedge Inception	240
5.11.4 Fair Valuations of Hedging Instrument and Hypothetical Derivative at the Relevant Dates	242
5.11.5 Calculation of Effective and Ineffective Amounts	243
5.11.6 Accounting Entries	243
5.12 Case Study: Hedging A Forecast Sale and Subsequent Receivable with a Knock-In Forward (Rebalancing Approach)	246
5.12.1 Quantity of Hedged Item Estimation	246
5.12.2 Hedging Relationship Documentation	249
5.12.3 Hedge Effectiveness Assessment	250
5.12.4 Hedge Effectiveness Assessment Performed at Hedge Inception	250
5.12.5 Fair Valuations at the Relevant Dates	253
5.12.6 Effective and Ineffective Amounts at the Relevant Dates	253
5.12.7 Accounting Entries	254
5.13 Case Study: Hedging A Highly Expected Foreign Sale with a Kiko Forward	257
5.13.1 Hedge Accounting Optimisation	259
5.13.2 Hedge Accounting Application for Approach 1 – Forward plus Residual Derivative	262
5.13.3 Hedging Relationship Documentation	262
5.13.4 Hedge Effectiveness Assessment Performed at Hedge Inception	262
5.13.5 Fair Valuations of Derivative Contracts and Hypothetical Derivative at the Relevant Dates	264
5.13.6 Accounting Entries	266
5.13.7 Additional Remarks	269
5.14 Case Study: Hedging A Forecast Sale and Subsequent Receivable with a Range Accrual (Part 1)	270
5.15 Case Study: Hedging A Forecast Sale and Subsequent Receivable with a Range Accrual (Designation In Its Entirety)	272
5.15.1 Hedging Relationship Documentation	272

5.15.2 Hedge Effectiveness Assessment	274
5.15.3 Hedge Effectiveness Assessment Performed at Hedge Inception	275
5.15.4 Fair Valuations and Calculations of Effective/Ineffective Amounts	276
5.15.5 Accounting Entries	279
5.16 Case Study: Hedging Forecast Sale and Subsequent Receivable with a Range Accrual (Splitting Approach)	282
5.16.1 Accounting Entries	283
5.16.2 Final Remarks	286
5.17 Hedging On A Group Basis – The Treasury Centre Challenge	287
5.17.1 Accounting Implications at Subsidiary Level	289
5.17.2 Accounting Implications at Consolidated Level	290
5.18 Hedging Forecast Intragroup Transactions	292
5.18.1 Example of Hedge of Forecast Intragroup Transaction	293

CHAPTER 6

Hedging Foreign Subsidiaries

295

6.1 Stand-Alone Versus Consolidated Financial Statements	297
6.1.1 Subsidiary Financial Statements	297
6.1.2 Parent-Only Financial Statements	297
6.1.3 Consolidated Financial Statements	298
6.2 The Translation Process	298
6.2.1 Basic Procedures prior to Translation	299
6.2.2 Specific Translation Procedures	299
6.2.3 Hyperinflationary Economies	300
6.3 The Translation Differences Account	300
6.4 Special Items That Are Part of a Net Investment	301
6.4.1 Goodwill and Fair Value Adjustments	301
6.4.2 Long-Term Investments in a Foreign Subsidiary	301
6.4.3 Disposal of a Foreign Operation	303
6.5 Effect Of Minority Interests on Translation Differences	303
6.6 Hedging Net Investments In Foreign Operations	303
6.6.1 Net Investment Hedge Issuing Foreign Currency Debt	304
6.6.2 Net Investment Hedge Using Derivatives	304
6.7 Case Study: Accounting for Net Investments In Foreign Operations	304
6.7.1 Elements of the Net Assets of a Foreign Subsidiary	305
6.7.2 Translation Process on Acquisition Date	306
6.7.3 Translation Process on First Reporting Date	307
6.8 Case Study: Net Investment Hedge with a Forward	311
6.8.1 Hedging Relationship Documentation	311

6.8.2 Hedge Effectiveness Assessment	312
6.8.3 Hedge Effectiveness Assessment Performed at Hedge Inception	313
6.8.4 Fair Values and Calculation of Effective and Ineffective Amounts	314
6.8.5 Accounting Entries – Forward Points Included in Hedging Relationship	316
6.8.6 Accounting Entries – Forward Points Excluded from Hedging Relationship	317
6.8.7 Implications of the FX Forward Points	320
6.9 Case Study: Net Investment Hedge Using Foreign Currency Debt	322
6.9.1 Hedging Relationship Documentation	322
6.9.2 Hedge Effectiveness Assessment	323
6.9.3 Hedge Effectiveness Assessment Performed at Hedge Inception	324
6.9.4 Other Relevant Information	325
6.9.5 Accounting Entries	326
6.9.6 Final Remarks	328
6.10 Net Investment Hedging With Cross-Currency Swaps	328
6.11 Case Study: Net Investment Hedge with a Floating-To-Floating Cross-Currency Swap	329
6.11.1 Hedging Relationship Documentation	330
6.11.2 Hedge Effectiveness Assessment	331
6.11.3 Hedge Effectiveness Assessment Performed at Hedge Inception	332
6.11.4 Other Relevant Information	332
6.11.5 Accounting Entries	334
6.11.6 Final Remarks	335
6.12 Case Study: Net Investment Hedge with a Fixed-To-Fixed Cross-Currency Swap	336
6.12.1 Hedging Relationship Documentation	337
6.12.2 Hedge Effectiveness Assessment	337
6.12.3 Hedge Effectiveness Assessment Performed at Hedge Inception	338
6.12.4 Other Relevant Information	340
6.12.5 Accounting Entries	342
6.13 Case Study: Hedging Intragroup Foreign Dividends	344
6.13.1 Effects of Intercompany Foreign Dividends on Individual and Consolidated Statements	344
6.13.2 Hedging Intercompany Foreign Dividends with an FX Forward	349
6.14 Case Study: Hedging Foreign Subsidiary Earnings	353
6.14.1 Hedging Relationship Documentation	356
6.14.2 Hedge Effectiveness Assessment	356
6.14.3 Hedge Effectiveness Assessment Performed at Hedge Inception	357
6.14.4 Other Relevant Information	358
6.14.5 Accounting Entries	359
6.14.6 Final Remarks	363
6.15 Case Study: Integral Hedging of an Investment in a Foreign Operation	364

CHAPTER 7

Hedging Interest Rate Risk	371
7.1 Common Interest Rate Hedging Strategies	371
7.2 Separation Of Embedded Derivatives in Structured Debt Instruments	373
7.3 Interest Accruals	375
7.4 Most Common Interest Rate Derivative Instruments	376
7.5 Case Study: Hedging a Floating Rate Liability With an Interest Rate Swap	376
7.5.1 Hedging Relationship Documentation	377
7.5.2 Hedge Effectiveness Assessment	378
7.5.3 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	379
7.5.4 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	380
7.5.5 Accounting Entries	382
7.5.5 Final Remarks	385
7.6 Case Study: Hedging A Floating Rate Liability With a Zero-Cost Collar	385
7.6.1 Hedging Relationship Documentation	387
7.6.2 Hedge Effectiveness Assessment	388
7.6.3 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	389
7.6.4 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	390
7.6.5 Accounting Entries	394
7.6.6 Final Remarks	396
7.7 Implications of Interest Accruals and Credit Spreads	397
7.7.1 Background Information	397
7.7.2 Credit Spread and Hedge Accounting	399
7.7.3 Interest Accruals and Fair Valuations	399
7.8 Case Study: Hedging a Fixed Rate Liability With an Interest Rate Swap	401
7.8.1 Background Information	402
7.8.2 Hedging Relationship Documentation	403
7.8.3 Hedge Effectiveness Assessment	404
7.8.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	405
7.8.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	406
7.8.6 Accounting Entries	410
7.8.7 Concluding Remarks	416
7.9 Case Study: Hedging A Future Fixed Rate Issuance with an Interest Rate Swap	416
7.9.1 Background Information	416
7.9.2 Hedging Relationship Documentation	418
7.9.3 Hedge Effectiveness Assessment	418
7.9.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	420

7.9.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	421
7.9.6 Accounting Entries	422
7.9.7 Concluding Remarks	425
7.10 Case Study: Hedging A Future Floating Rate Issuance with an Interest Rate Swap	426
7.10.1 Background Information	426
7.10.2 Hedging Relationship Documentation	427
7.10.3 Hedge Effectiveness Assessment	428
7.10.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	430
7.10.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	430
7.10.6 Accounting Entries	432
7.10.7 Concluding Remarks	435
7.11 Case Study: Hedging A Fixed Rate Liability with a Swap In Arrears	436
7.11.1 Background Information	437
7.11.2 Hedging Relationship Documentation	438
7.11.3 Hedge Effectiveness Assessment	439
7.11.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	440
7.11.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	442
7.11.6 Accounting Entries	445
7.11.7 Concluding Remarks	448
7.12 Case Study: Hedging A Floating Rate Liability with a Kiko Collar	448
7.12.1 Background Information	449
7.12.2 Split between Hedge Accounting Compliant Derivative and Residual Derivative	451
7.12.3 Hedging Relationship Documentation	453
7.12.4 Hedge Effectiveness Assessment	454
7.12.5 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	456
7.12.6 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	457
7.12.7 Accounting Entries	463
7.12.8 Concluding Remarks	467

CHAPTER 8

Hedging Foreign Currency Liabilities

469

8.1 Case Study: Hedging a Floating Rate Foreign Currency Liability with a Receive-Floating Pay-Floating Cross-Currency Swap	469
8.1.1 Background Information	470
8.1.2 Determining Risk Components to Include in the Hedging Relationship	472

8.1.3 Hedging Relationship Documentation	472
8.1.4 Hedge Effectiveness Assessment	473
8.1.5 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	474
8.1.6 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	475
8.1.7 Accounting Entries	482
8.1.8 Concluding Remarks	493
8.2 Case Study: Hedging a Fixed Rate Foreign Currency Liability with a Receive-Fixed Pay-Floating Cross-Currency Swap	493
8.2.1 Background Information	494
8.2.2 Hedging Relationship Documentation	496
8.2.3 Hedge Effectiveness Assessment	496
8.2.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	497
8.2.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	499
8.2.6 Accounting Entries	505
8.2.7 Concluding Remarks	515
8.3 Case Study: Hedging A Floating Rate Foreign Currency Liability with a Receive-Floating Pay-Fixed Cross-Currency Swap	515
8.3.1 Background Information	516
8.3.2 Hedging Relationship Documentation	518
8.3.3 Hedge Effectiveness Assessment	518
8.3.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	520
8.3.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	521
8.3.6 Accounting Entries	528
8.3.7 Concluding Remarks	538
8.4 Case Study: Hedging A Fixed Rate Foreign Currency Liability with a Receive-Fixed Pay-Fixed Cross-Currency Swap	538
8.4.1 Background Information	538
8.4.2 Hedging Relationship Documentation	540
8.4.3 Hedge Effectiveness Assessment	541
8.4.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	542
8.4.5 Fair Valuations, Effective/Ineffective Amounts and Cash Flow Calculations	543
8.4.6 Accounting Entries	551
8.4.7 Concluding Remarks	561

CHAPTER 9

Hedging Equity Risk

563

9.1 Recognition of Equity Investments In Other Companies	563
9.1.1 Hedging Investments Consolidated under Equity Method	565

9.1.2 Impairment of Equity Investments	565
9.2 Debt Versus Equity Classification of Own Instruments	565
9.2.1 Recognition as a Liability	566
9.2.2 Recognition as an Equity Instrument	566
9.3 Hybrid Securities – Preference Shares From an Issuer’s Perspective	567
9.3.1 Contractual Discretion	567
9.3.2 Economic Compulsion	568
9.3.3 Degree of Subordination	568
9.3.4 Legal Form	568
9.3.5 Entity’s Historical Trend or Ability to Make Distributions	569
9.4 Convertible Bonds – Issuer’s Perspective	569
9.4.1 Convertible Bonds Denominated in the Entity’s Functional Currency – Fixed for Fixed	570
9.4.2 Convertible Bonds Denominated in the Entity’s Functional Currency – Fixed for Variable	571
9.4.3 Convertible Bonds Denominated in a Foreign Currency	571
9.5 Convertible Bonds – Investor’s Perspective	572
9.6 Derivatives on Own Equity Instruments	572
9.6.1 Hedging Own Equity Instruments	572
9.6.2 Derivatives on Own Equity Instruments	572
9.7 Case Study: Accounting For A Stock Lending Transaction	573
9.7.1 Accounting Entries	575
9.7.2 Final Remarks	577
9.8 Case Study: Accounting for a Mandatory Convertible Bond from an Issuer’s Perspective	578
9.8.1 Accounting for a Fixed Parity Mandatory Convertible Bond	578
9.8.2 Accounting for a Variable Parity Mandatory Convertible Bond	581
9.9 Case Study: Accounting for a Convertible Bond from an Issuer’s Perspective	583
9.9.1 Accounting for a Fixed-for-Fixed Convertible Bond	583
9.9.2 Accounting for a Fixed-for-Variable Convertible Bond	586
9.10 Case Study: Hedging Step-Up Callable Perpetual Preference Shares	590
9.10.1 Accounting versus Credit Impact	591
9.10.2 The Hedging Problem	591
9.10.3 Accounting Entries	593
9.10.4 Concluding Remarks	595
9.11 Case Study: Base Instruments Linked To Debt Instruments	596
9.12 Case Study: Parking Shares Through a Total Return Swap	596
9.12.1 Asset Monetisation Strategy	597
9.12.2 Accounting Entries	599
9.13 Case Study: Hedging an Equity Investment with a Put Option	601
9.13.1 Accounting Treatment of the Put Time Value when Excluded from the Hedging Relationship	602

9.13.2 Accounting Treatment of the Put Time Value when Included in a Hedging Relationship	609
9.14 Case Study: Selling A Forward on Own Shares	610
9.14.1 Accounting Treatment of a Physically Settled Only Forward on Own Shares	610
9.14.2 Accounting Treatment of a Forward on Own Shares Treated as a Derivative	612
CHAPTER 10	
Hedging Stock-Based Compensation Plans	617
10.1 Types And Terminology of Stock-Based Compensation Plans	617
10.1.1 Main Equity-Based Compensation Plans	617
10.1.2 Terminology	618
10.2 Accounting for Equity-Based Compensation Plans	619
10.2.1 Vesting and Non-vesting Conditions	620
10.2.2 Accounting for Stock Option Plans	621
10.2.3 Accounting for Stock Appreciation Rights	622
10.3 Case Study: ABC's Share-Based Plans	624
10.3.1 Main Terms	624
10.3.2 Accounting for ABC's Stock Option Plan	625
10.3.3 Accounting for ABC's Stock Appreciation Rights	629
10.4 Main SOP/SAR Hedging Strategies	632
10.4.1 Underlying Risks in SOPs and SARs	632
10.4.2 Hedging with Treasury Shares	633
10.4.3 Hedging with Equity Swaps	634
10.4.4 Hedging with an Enhanced Equity Swap	638
10.4.5 Hedging with Standard Call Options	639
10.5 Case Study: Hedging a Stock Option Plan with an Equity Swap	641
10.6 Case Study: Hedging an SAR Plan with a Call	647
CHAPTER 11	
Hedging Commodity Risk	655
11.1 Main Commodity Underlyings	655
11.2 Lease, Derivative and Own-Use Contracts	655
11.2.1 Definitions of Lease, Derivative and Own-Use Contracts	656
11.2.2 Use of Similar Contracts for both Own-Use and Trading Purposes	658
11.3 Categorisation According to Settlement Terms	658
11.3.1 Physically Settled Commodity Contracts	658
11.3.2 Net Settled Commodity Contracts	659
11.3.3 Commodity Contracts with Choice of Physical Delivery or Net Settlement	659
11.4 Case Study: Hedging Gold Production with a Forward – Own-Use Application	659

11.5 Case Study: Raising Financing Through a Gold Loan	662
11.6 Case Study: Hedging a Silver Purchase Firm Commitment with a Forward – Fair Value Hedge	664
11.6.1 Hedging Strategy	665
11.6.2 Hedging Relationship Documentation	666
11.6.3 Hedge Effectiveness Assessment	667
11.6.4 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	667
11.6.5 Fair Valuations of Hedging Instrument and Hedged Item	669
11.6.6 Accounting Entries	670
11.7 Case Study: Hedging Commodity Inventory with Futures	672
11.7.1 Recognition of Inventories according to IAS 2	672
11.7.2 Applying Hedge Accounting to Inventory	673
11.7.3 Background Information	673
11.7.4 Hedging Relationship Documentation	673
11.7.5 Hedge Effectiveness Assessment	674
11.7.6 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	675
11.7.7 Fair Valuations of Hedging Instrument and Hedged Item	677
11.7.8 Accounting Entries	678
11.8 Case Study: Hedging a Highly Expected Purchase Of Oil With Futures and an FX Forward – Cash Flow Hedge	680
11.8.1 Background Information	681
11.8.2 Hedging Relationship Documentation	682
11.8.3 Hedge Effectiveness Assessment	683
11.8.4 Hedge Effectiveness Assessment Performed at Hedging Relationship Inception	684
11.8.5 Fair Valuations of Hedging Instrument and Hedged Item	686
11.8.6 Accounting Entries	688
11.9 Case Study: Airline Jet Fuel Consumption Hedge With Jet Fuel and Crude Oil – Risk Component	691
11.9.1 Background Information	691
11.9.2 Hedging Risk Components	694
11.9.3 Hedging Relationship Documentation	695
11.9.4 Hedge Effectiveness Assessment	697
11.9.5 Hedge Effectiveness Assessment Performed at the Start of the Hedging Relationship	698
11.9.6 Fair Valuations and Accounting Entries on 30 June 20X5	701
11.9.7 Concluding Remarks	707

CHAPTER 12**Hedging Inflation Risk****709**

12.1 Inflation Markets – Main Participants and Indices	709
12.1.1 Inflation Market Participants	709
12.1.2 Measuring Inflation from Indices	711

12.1.3	Main Inflation Indices	711
12.1.4	Components of a Bond Yield and the Fisher Equation	712
12.1.5	Breakeven Inflation	714
12.2	Inflation-Linked Bonds	714
12.3	Inflation Derivatives	716
12.3.1	Zero-Coupon Inflation Swaps	717
12.3.2	Non-cumulative Periodic Inflation Swaps	719
12.3.3	Cumulative Periodic Inflation Swaps	720
12.3.4	Inflation Caps and Floors	722
12.4	Inflation Risk Under IFRS 9	725
12.4.1	Hybrid Instruments	725
12.4.2	Hedging Inflation as a Risk Component	726
12.5	Case Study: Hedging Revenues Linked To Inflation	727
12.5.1	Background	727
12.5.2	Hedging Relationship Documentation	728
12.5.3	Hedge Effectiveness Assessment – Hypothetical Derivative	729
12.5.4	Hedge Effectiveness Assessment Performed at Start of the Hedging Relationship	730
12.5.5	Fair Valuations of the ILS and the Hypothetical Derivative	732
12.5.6	Accounting Entries	735
12.5.7	Concluding Remarks	737
12.6	Matching An Inflation-Linked Asset with a Floating Rate Liability	738
CHAPTER 13		
	Hedge Accounting: A Double-Edged Sword	741
13.1	Positive Influence on The Profit or Loss Statement	742
13.2	Substantial Operational Resources	743
13.3	Limited Access to Hedging Alternatives	744
13.4	Risk of Reassessment of Highly Probable Transactions	744
13.5	Low Compatibility With Portfolio Hedging	745
13.6	Final Remarks	746
INDEX		749

Preface

The main goal of IFRS is to safeguard investors by achieving uniformity and transparency in the accounting principles. One of the main challenging aspects of the IFRS rules is the accounting treatment of derivatives and its link with risk management. Whilst it takes years to master the interaction between IFRS 9 (the main guidance on derivatives accounting) and the risk management of market risks using derivatives, this book accelerates the learning process by covering real-life hedging situations, step-by-step. Because each market risk – foreign exchange, interest rates, inflation, equity and commodities- has its own accounting and risk management peculiarities, I have covered each separately to address their particular issues.

Banks have developed increasingly sophisticated derivatives that have increased the gap between derivatives for which there is a consensus about how to apply IFRS 9 and derivatives for which their accounting is unclear. This gap will remain as long as the resources devoted to financial innovation hugely exceed those devoted to accounting interpretation. The objective of this book is to provide a conceptual framework based on an extensive use of cases so that readers can come up with their own accounting interpretation of any hedging strategy.

This book is aimed at professional accountants, corporate treasurers, bank financial engineers, derivative salespersons at investment banks and credit/equity analysts.

CHANGES TO THE PREVIOUS EDITION

The previous edition of *Accounting for Derivatives* was based on IAS 39. This second edition is based on IFRS 9, the accounting standard replacing IAS 39. IFRS 9 has incorporated a large number of new concepts including new hedge effectiveness assessment requirements, rebalancing and hedge ratio determination, a wider eligibility of hedged items, and a special treatment for options, forwards and cross currency swaps. New cases have been incorporated, especially in the chapters covering commodities and equity risk management. In addition three new chapters have been incorporated to the book: a chapter that provides a summary of IFRS 13 *Fair Value Measurement* with a special emphasis on credit/debit valuation adjustments (CVA/DVA), a chapter addressing hedging of share-based compensation plans and another chapter covering inflation risk.

The Theoretical Framework – Recognition of Financial Instruments

IFRS 9 *Financial Instruments* is a complex standard. IFRS 9 replaced IAS 39 *Financial Instruments: Recognition and Measurement*. It establishes accounting principles for recognising, measuring and disclosing information about financial assets and financial liabilities. The objective of this chapter is to summarise the key aspects of financial instrument recognition under IFRS 9.

IFRS 9 is remarkably wide in scope and interacts with several other standards (see Figure 1.1). When addressing hedging there are, in addition to IFRS 9, primarily three standards that have an impact on the way a hedge is structured: IAS 21 *The Effects of Changes in Foreign Exchange Rates*, IAS 32 *Financial Instruments: Disclosure and Presentation* and IFRS 13 *Fair Value Measurement*.

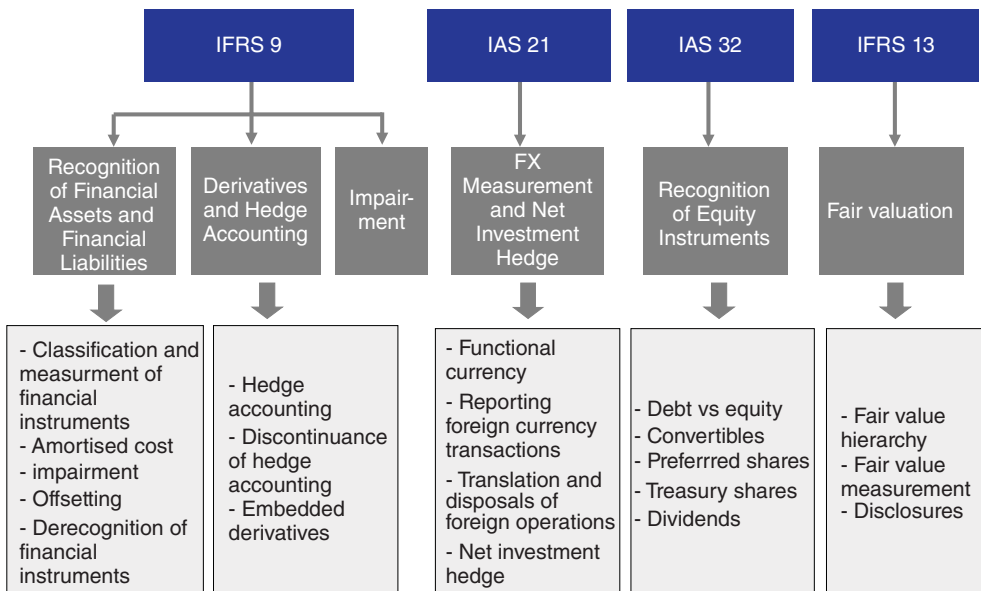


FIGURE 1.1 Relevant accounting standards for hedging.

Whilst the International Accounting Standards Board (IASB) is responsible for setting the IFRS standards, jurisdictions may incorporate their own version. For example, entities in the European Union must apply the version of IFRS 9 endorsed by the EU, which might differ from the IASB's IFRS 9 standard.

1.1 ACCOUNTING CATEGORIES FOR FINANCIAL ASSETS

Under IFRS 9, a financial instrument is any contract that gives rise to both a financial asset in one entity and a financial liability or equity instrument in another entity.

IFRS 9 does not cover the accounting treatment of some financial instruments – for example, own equity instruments, insurance contracts, leasing contracts, some financial guarantee contracts, weather derivatives, loans not settled in cash (or in any other financial instrument), interests in subsidiaries/associates/joint ventures, employee benefit plans, share-based payment transactions, contracts to buy/sell an acquiree in a business combination, contracts for contingent consideration in a business combination, and some commodity contracts are outside the scope of IFRS 9.

1.1.1 Financial Asset Categories

A financial asset is any asset that is cash, a contractual right to receive cash or some other financial asset, a contractual right to exchange financial instruments with another entity under conditions that are potentially favourable, or an equity instrument of another entity. Financial assets include derivatives with a fair value favourable to the entity.

IFRS 9 considers three categories of financial assets (see Figures 1.2 and 1.3):

- At **amortised cost**. This category consists of debt investments that meet both the **business model test** (i.e., the investment is managed to hold it in order to collect contractual cash flows) and the **contractual cash flow test** (the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding), and for which the fair value option (FVO) is not applied.
- At **fair value through other comprehensive income (FVOCI)**. This category consists of debt investments that meet both the business model test and the contractual cash flow test, but that are managed to sell them as well. It also consists of equity investments not held for trading for which the entity chooses not to classify them at fair value through profit or loss.
- At **fair value through profit or loss (FVTPL)**. This category consists of financial assets that are neither measured at amortised cost nor at FVOCI.

The classification of an instrument is determined on initial recognition. Reclassifications are made only upon a change in an entity's business model, and are expected to be very infrequent. No other reclassifications are permitted.

1.1.2 Financial Assets at Amortised Cost

A financial asset qualifies for amortised cost measurement only if it meets both of the following criteria:

- **Business model test**. The asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows.
- **Contractual cash flows test**. The contractual cash flows of the financial represent solely payments of principal and interest.

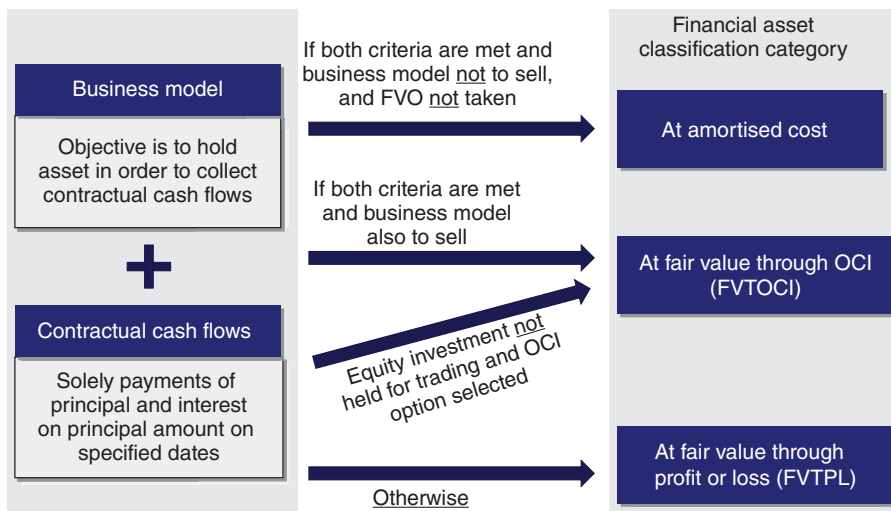


FIGURE 1.2 IFRS 9 financial assets classification categories – summary flowchart.

This is a mandatory classification, unless the fair value option is applied. Financial assets in the amortised cost category include non-callable debt (i.e. loans, bonds and most trade receivables), callable debt (provided that if it is called the holder would recover substantially all of debt’s carrying amount) and senior tranches of pass-through asset-backed securities.

If a financial asset does not meet any of the two conditions above it is measured at FVTPL. If both conditions are met but the sale of the financial asset is also integral to the business model, it is recognised at FVOCI.

Even if an asset is eligible for classification at amortised cost or at FVOCI, management also has the option – the FVO – to designate a financial asset at FVTPL if doing so reduces or eliminates a measurement or recognition inconsistency (commonly referred to as “accounting mismatch”).

Business Model Test If the entity’s objective is to hold the asset to collect the contractual cash flows, then it will meet the first criterion to qualify for amortised cost. The entity’s business model does not depend on management’s intentions for the individual asset, but rather on the basis of how an entity manages the portfolio of debt instruments. Examples of factors to consider when assessing the business model for a portfolio are:

- the way the assets are managed;
- how performance of the business is reported to the entity’s key management personnel;
- how management is compensated (whether the compensation is based on the fair value of the assets managed); and
- the historical frequency, timing and volume of sales in prior periods, the reasons for these sales (such as credit deterioration), and expectations about future sales activity.

IFRS 9 indicates that sales due to deterioration of the credit quality of the financial assets so that they no longer meet the entity’s documented investment policy would be consistent with the amortised cost business model. Sales that occur for other reasons may also be consistent with the amortised cost business model if they are infrequent (even if significant) or insignificant (even if frequent), or if the sales take place close to the maturity of the financial asset and the proceeds from the sale approximate the collection of the remaining contractual cash flows. For example, an entity could sell one financial asset that results in a large gain and

this would not necessarily fail the business model test due to its significant effect on profit or loss unless it was the entity's business model to sell financial assets to maximise returns.

If an entity is unsure of the business model for the debt investments, the default category would be at FVTPL.

Example: Liquidity portfolio

A bank holds financial assets in a portfolio to meet liquidity needs in a "stress case" scenario that is deemed to occur only infrequently. Sales are not expected except in a liquidity stress situation. The bank also monitors the fair value of the assets in the portfolio to ensure that the cash amount that would be realised if a sale is required would be sufficient to meet liquidity needs. In this case (i.e., where the "stress case" is deemed to be rare), the bank's business model is to hold the financial assets to collect contractual cash flows.

In contrast, if the bank holds financial assets in a portfolio to meet everyday liquidity needs and that involves recurring and significant sales activity, the objective is not to hold to collect the contractual cash flows. However, if the objective of the regulator is for the bank to demonstrate liquidity, the bank could consider other ways to demonstrate liquidity that would allow the portfolio to still qualify for amortised cost (e.g., entering into a repurchase agreement for the debt investments)

In addition, if the bank is required by the regulator to routinely sell significant volumes of financial assets in a portfolio to demonstrate the assets are liquid, the bank's business model is not to hold to collect contractual cash flows (the fact that this requirement is imposed by a third party is not relevant to the analysis).

Example: Financial assets backing insurance contracts

An insurer holds financial assets in a portfolio to fund insurance contract liabilities. The insurer uses the proceeds from the contractual cash flows to settle the insurance liabilities as they come due. There is also rebalancing of the portfolio on a regular basis as estimates of the cash flows to fund the insurance liabilities are not always predictable.

The objective of the insurer's business model is both to hold the financial assets to collect contractual cash flows to fund liabilities as they come due and to sell to maintain the desired profile in the asset portfolio. In this case, the insurer holds financial assets with a dual objective to fund insurance liabilities and maintain the desired profile of the asset portfolio. This portfolio would fail the business model test of holding to collect contractual cash flows but would likely qualify for FVOCI subject to the contractual cash flow test.

Contractual Cash Flows Test If the financial asset’s contractual terms give rise on specified dates to cash flows that are “solely payments of principal and interest on the principal amount outstanding” (SPPI), then it will meet the second criterion to qualify for amortised cost.

Interest is defined as “consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time”. The assessment as to whether cash flows meet this test is made in the currency of denomination of the financial asset.

Contractual Cash Flows Test – Modified Economic Relationship IFRS 9 also refers to the case of “modified economic relationships”. For example, a financial asset may contain leverage or an interest rate that is resettable, but the frequency of the reset does not match the tenor of the interest rate (an “interest rate mismatch”). In such cases, the entity is required to assess the modification to determine whether the contractual cash flows represent solely payments of principal and interest on the principal amount outstanding. To do this, an entity considers cash flows on a comparable or **benchmark** financial asset that does not contain the modification. The benchmark asset is a contract of the same credit quality and with the same contractual terms (including, when relevant, the same reset periods), except for the contractual term under evaluation (i.e., the underlying rate).

If the modification results in cash flows that are more than insignificantly different from the benchmark cash flows, or if the entity is unable to reach a conclusion, then the financial asset does not satisfy the SPPI test (see Figure 1.3).

In making this assessment the entity only considers reasonable possible scenarios rather than every possible scenario. If it is clear with little or no analysis whether the cash flows on the financial asset could or could not be more than insignificantly different from the benchmark cash flows, then an entity does not need to perform a detailed assessment.

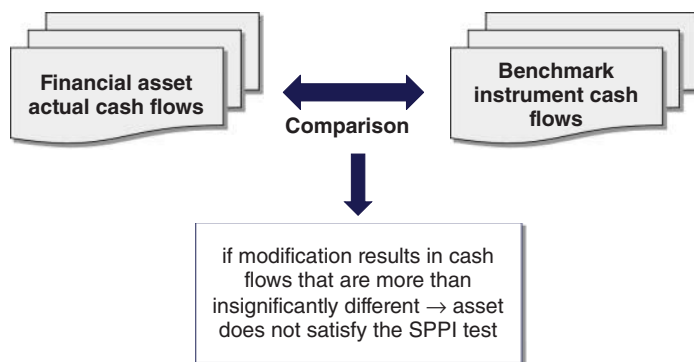


FIGURE 1.3 Contractual cash flows modification test.

Example: Constant maturity swap

A constant maturity bond with a 5-year term pays a variable rate that is reset semiannually linked to the 5-year swap rate. The benchmark cash flows are those of an otherwise identical bond but linked to the 6-month rate. At the time of initial recognition, the difference between the 6-month rate and the 5-year swap rate is insignificant. This bond does not meet the SPPI requirement because the interest payable in each period is disconnected from the term of the instrument (except at origination). In other words, the relationship between the 6-month rate and the 5-year swap rate could change over the life of the instrument so that the asset and the benchmark cash flows could be more than insignificantly different.

1.1.3 Financial Assets at Fair Value through Other Comprehensive Income

This category consists of debt investments that meet the contractual cash flows test, for which their business model is held to collect and for sale. This is a mandatory classification, unless the FVO is applied. This category is intended to acknowledge the practical reality that an entity may invest in debt instruments to capture yield but may also sell if, for example, the price is considered advantageous or it is necessary to periodically adjust or rebalance the entity's net risk, duration or liquidity position.

This category also consists of equity investments which are not held for trading. An entity can choose to classify non-trading equity investments in this category on an instrument-by-instrument basis. This is an irrevocable election.

1.1.4 Financial Assets at Fair Value through Profit or Loss

The FVTPL category is in effect the “residual category” for instruments that do not qualify for the amortised cost or FVOCI categories. The following financial assets would be included in the FVTPL category:

- financial assets held for trading;
- financial assets managed on a fair value basis to maximise cash flows through the sale of financial assets such that collecting cash flows is only incidental;
- financial assets managed, and whose performance is evaluated, on a fair value basis;
- financial assets where the collection of cash flows is not integral to achieving the business model objective (but only incidental to it); and
- financial assets that fail the SPPI test.

Derivatives are recognised at FVTPL unless they are a hedging instrument in cash flow hedge or net investment in foreign operation. Therefore, derivatives undesignated or being hedging instruments in fair value hedging relationships are classified at FVTPL. Recognition of derivatives is covered in detail in Chapter 2.

1.1.5 Financial Assets – Initial and Subsequent Recognition

An entity recognises a financial asset when and only when the entity becomes a party to the contractual provisions of a financial instrument. The initial measurement of the financial asset

is its fair value, which normally is the consideration given, including directly related transaction costs.

Debt Instruments at Amortised Cost Debt instruments classified at amortised cost are subsequently recognised at amortised cost less impairment in the statement of financial position. Interest income and impairment are recognised in profit or loss. Interest income is recognised using the effective interest rate method. Impairment charges can be reversed through profit or loss. Foreign exchange gains and losses are recognised in profit or loss.

Debt Instruments at FVOCI A debt instrument classified at FVOCI is presented in the statement of financial position at fair value. The entity also keeps an amortised cost calculation (i.e., an effective interest rate) to recognise interest income in profit or loss.

Interest income and impairment are recognised in profit or loss, using the same methodology as for amortised cost. Interest income is recognised using the effective interest rate method. Impairment charges can be reversed through profit or loss. Likewise, foreign exchange gains and losses are recognised in profit or loss as if the instrument were carried at amortised cost. The difference between amortised cost (in the currency of denomination) and fair value (in the currency of denomination) is recognised in OCI and recycled when the instrument is sold.

Equity Instruments at FVOCI Gains and losses on equity investments in this category are recognised in OCI with no recycling of gains and losses into profit or loss. If an equity investment is so designated, then dividend income generally is recognised in profit or loss. No impairment is recognised.

Instruments at FVTPL Gains and losses on instruments in this category are recognised in profit or loss. No impairment is recognised.

Summary The table below gives an overview of the accounting treatment of each category of financial assets:

Asset category	Measurement	Fair value changes
At amortised cost	Initial recognition at fair value Subsequent recognition at amortised cost less impairment. Any premium or discount is amortised to profit or loss	Not relevant unless impaired Interest income, impairment and foreign exchange gains/losses recognised in profit or loss. Impairment can be reversed through profit or loss
At FVTPL	Fair value	Changes in fair value recorded in profit or loss No impairment recorded
At FVOCI	Fair value	Changes in fair value recorded in OCI For debt instruments: interest revenue, credit impairment and foreign exchange gains or losses recognised in profit or loss. On derecognition any cumulative gains and losses in OCI reclassified to profit or loss For equity investments: no impairment is recorded. Dividends recorded in profit or loss

Leveraged Financial Assets In order to meet the contractual cash flows criterion, there should be no leverage of the contractual cash flows. Leverage increases the variability of the contractual cash flows, with the result that they do not have the economic characteristics of interest.

Non-recourse Financial Assets IFRS 9 contains specific guidance on classifying non-recourse (or limited recourse) financial assets. These assets represent an investment in which the investor's claims are limited to specified assets, which may be financial or non-financial assets. IFRS 9 states that the fact that a financial asset is non-recourse does not mean in itself that the SPPI criterion is not met.

- If, for instance, the underlying assets meet the SPPI criterion, it may be possible to conclude that the non-recourse asset also meets the criterion.
- If, for example, the non-recourse asset is a vehicle whose only asset is an equity investment, it will not meet the SPPI criterion.

Contractually Linked Instruments – Tranches of Securitisations IFRS 9 contains specific guidance on classifying contractually linked instruments that create concentrations of credit risk (e.g., securitisation tranches). The right to payments on more junior tranches depends on the issuer's generation of sufficient cash flows to pay more senior tranches. The standard requires a look-through approach to determine whether the SPPI criterion is met. Otherwise, the tranche would be recognised at fair value.

A tranche meets the SPPI criterion only if all the following conditions are met:

Principal and interest test. The contractual terms of the tranche itself have only SPPI characteristics.

Look-through test. The underlying pool of financial instruments:

contains one or more instruments that meet the SPPI criterion;

also may contain instruments that:

reduce the cash flow variability of the instruments under (i) and the combined cash flows meet the SPPI criterion (e.g., interest rate caps and floors, credit protection), or

align the cash flows of the tranches with the cash flows of the instruments under (i) arising as a result of differences in whether interest rates are fixed or floating or the currency or timing of cash flows.

Credit risk test. The exposure to credit risk inherent in the tranche is equal to, or lower than, the exposure to credit risk of the underlying pool of financial instruments. The standard states as an example that this condition would be met if, in all circumstances in which the underlying pool of instruments loses 50% as a result of credit losses, the tranche would lose 50% or less.

The look-through approach is carried through to the underlying pool of instruments that create, rather than pass through, the cash flows. For example, if an entity invests in a tranching note issued by SPE 2 whose only asset is an investment in another tranching note issued by SPE 1, the entity looks through to the assets of SPE 1 in performing the assessment.

Example: Tranched issuance

Suppose that a special-purpose entity (SPE) has bought mortgage assets with a notional amount of USD 800 million and issued three tranched notes (A, B and C) that are contractually linked. All assets in the pool meet the SPPI criterion. The underlying mortgage assets pay fixed rates of interest on a monthly basis. The vehicle holds an interest rate swap that swaps the underlying mortgages monthly fixed interest for 3-month Libor. The weighted average credit spread of the assets in the mortgage pool is 400 basis points.

- Tranche A pays a quarterly interest of 3-month Libor plus 50 basis points on a principal of USD 300 million.
- Tranche B pays a quarterly interest of 3-month Libor plus 400 basis points on a principal of USD 200 million.
- Tranche C pays a quarterly interest of 3-month Libor plus 500 basis points on a principal of USD 100 million.

If the underlying pool of instruments were to lose 50% as a result of credit losses, a loss of USD 400 million would arise (= 800 million × 50%), and the effect on the tranches would be as follows:

- The overcollateralisation would absorb the first USD 200 million losses.
- Tranche C would lose USD 100 million, representing 100% of its total principal.
- Tranche B would lose USD 100 million, representing 50% of its total principal.
- Tranche A would not experience any losses.

In addition to the tranches and the asset pool, the vehicle contains another financial instrument, an interest rate swap, but it only aligns the cash flows of the underlying pool with those of the tranches, and consequently it does not affect the tranches' SPPI eligibility. Whilst all the three tranches meet two of the SPPI conditions (i.e., the underlying mortgage pool meets the SPPI criterion and the tranches pay cash flows that only represent principal and interest), only tranches A and B are eligible for amortised cost recognition, subject to meeting the business model criterion, as a 50% loss in the underlying asset pool would not cause these tranches to experience losses exceeding 50% of their principal amounts. As a result, the larger the level of overcollateralisation (i.e., the excess of the underlying pool size relative to the size of the issued tranches), the higher the likelihood of meeting the credit risk test.

Item	Look-through test	Principal and interest test	Credit risk test	Amortised cost eligibility (*)
Tranche A	Pass	Pass	Pass	Yes
Tranche B	Pass	Pass	Pass	Yes
Tranche C	Pass	Pass	Fail	No

(*) Subject to the business model criterion being met

When the tranche held by the investor is prepayable contingent upon a prepayment occurring in the pool of underlying assets, it may meet SPPI even if the following features exist in the structure (assuming the three primary conditions for the tranche as a whole are met):

- The tranche is prepayable contingent on repayment occurring in the underlying pool. Because SPPI must be met for the underlying pool, it is assumed the underlying prepayment risk on the pool is consistent with SPPI.
- Even if the collateral underlying the pool does not meet the qualifying conditions for amortised cost, the underlying collateral can be disregarded unless the instrument was acquired with the intention of controlling the collateral.

1.1.6 Reclassifications

IFRS 9 requires an entity to reclassify financial assets if and only if the objective of the entity's business model for managing those assets changes. Such changes are expected to be infrequent, and need to be determined by the entity's senior management as a result of internal or external modifications. These modifications have to be significant to the entity's operations and demonstrable to external parties. Reclassification is applied prospectively from the start of the first reporting period following the change in business model.

Both the amortised cost and FVOCI categories require the effective interest rate to be determined at initial recognition. Therefore, when reclassifying a financial asset between the amortised cost and the FVOCI categories, the recognition of interest income would not change and the entity would continue to use the effective interest rate determined at initial recognition. A financial asset reclassified out of the FVOCI category to the amortised cost category would be measured at amortised cost as if it had always been so classified. This will be effected by transferring the cumulative gain or loss previously recognised in OCI out of equity, with an offsetting entry against the fair value carrying amount at the reclassification date.

However, for financial assets at FVTPL, an entity is not required to separately recognise interest income. When reclassifying a financial asset out of the FVTPL category, the effective interest rate would be determined based on the fair value carrying amount at the reclassification date.

Asset category	Reclassification to		
	Amortised cost	FVOCI	FVTPL
From: At amortised cost	N/A	Remeasure at fair value with any difference in OCI	New carrying amount is the fair value on reclassification date
		The effective interest rate determined at initial recognition remains unchanged	Any difference between amortised cost and fair value is recognised in profit or loss
From: At FVOCI	Accumulated OCI recycled out of equity, with offsetting entry against fair value carrying amount	N/A	Accumulated OCI amount recycled to profit or loss