Samir Alamad

Financial and Accounting Principles in Islamic Finance

Springer

Financial and Accounting Principles in Islamic Finance

Samir Alamad

Financial and Accounting Principles in Islamic Finance

Springer

Samir Alamad
Head of Sharia Compliance & Product Development
Al Rayan Bank
Birmingham, UK

ISBN 978-3-030-16298-6 ISBN 978-3-030-16299-3 (eBook)
https://doi.org/10.1007/978-3-030-16299-3

This Springer imprint is published by the registered company Springer Nature Switzerland AG.
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

I dedicate this work to my mother, Iman, and my late father, Hamdi, who always encouraged me, my wife and my daughters.

Preface

This book was motivated by the desire to further the evolution of Islamic finance and banking in the field of social sciences. The main objective in writing this book is to ensure that the Islamic finance industry is backed by a robust literature that while it supports its development and contributes to it, it ensures it has theoretical roots in the academic literature. This is to ensure Islamic finance delivers what it is supposed to achieve as an alternative financial model, rather than being forced to replicate conventional finance. However, there is an important element that should be achieved first, that is, the human factor. Here, the human factor is those bankers working in Islamic financial institutions (IFIs), which include all stakeholders, such as banks shareholders, executives, senior management, managers, Islamic scholars, legal experts, auditors etc., who are implementing Islamic finance correctly as it should be without circumventing its values and principles. The other aspect of the human factor is market demand, consumers who not only want their financial transactions to adhere to Islamic ethics but also understand the inherent differences in the performances of Islamic financial products. With this in place, there is the possibility that Islamic finance could move to the forefront of the global economic and financial system as a stable, sustainable, resilient and ethical social finance model, which is the higher objective that this book aims to achieve.

This book is not merely an academic work, nor it is a pure practitioner guide; rather, it is a robust work that combines both. It marries rigorous academic research and theories with practical industry experiences. It is a condensed account of my own academic and practical experience, which covers working in Islamic financial services, setting up a Shariah governance system from scratch, developing unique product portfolios and advising the UK government and other national and international institutions. I share in this book an inside knowledge and experience that is the first of its kind as an academic, Islamic finance economist and a practitioner expert.

I believe that we are, as stakeholders in the Islamic finance system, part of a dynamic movement of thinkers, scholars, researchers and practitioners dedicated to advancing the cause of Islamic finance. This does not simply refer to Islamic finance as a means of avoiding interest income and other impermissible industries, as many participants at global Islamic finance conferences explain in a shallow understanding,

failing to explain how and what values and ethical contributions Islamic finance would offer to society. It saddens me that some self-appointed experts in Islamic finance diminish the ethical framework of Islamic finance to what a beginner in Islamic finance would know and that Islamic finance merely involves not investing a list in prohibited activities, such as gambling, arms, alcohol and so on. They fail miserably to articulate how Islamic finance is different, what values it offers and how it could go beyond conventional ethical finance. I must be honest here; I feel ashamed when I hear what those representing the Islamic finance industry say and do, whereas, in reality, Islamic finance is evolving to respond to the environmental and social challenges that we face as a global community.

One example of this was a session about putting into action the Islamic imperative to good in society—moving from mandatory Shariah considerations into recommended, higher principles. This includes the ruling on corporate social responsibility (CSR) issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). In its ruling on CSR, AAOIFI stresses that all institutions need to have policies on Shariah compliant contracts, employee welfare and prohibited earnings. In that same ruling, the AAOIFI recommends that institutions also have policies for investing in social and environmental causes.

Along those same lines, the Organization of Islamic Cooperation (OIC) Fiqh Academy explains in a resolution adopted in April 2009 that it is prohibited to engage in any activity that causes environmental harm. These types of advances, in thought, show the potential for harmonisation between Islamic finance principles and international goals for social progress, healthcare and poverty eradication like those outlined in the United Nations' Sustainable Development Goals or SDGs. Many say that it is possible to find an Islamic counterpart to every one of the 17 SDGs. The Holy Qur'an itself speaks of the importance of food, water, safety and security, all of which are central to the SDGs.

The ultimate aim of the SDGs is to end poverty, protect the planet and ensure prosperity for all. I find it encouraging that there is a talk of the central instruments of Islamic finance zakah, waqf and sukuk being directed towards these goals. There are a few examples of this already being put into practice. A number of socially responsible investment sukuk are already in place and advance the objectives of the SDGs. For instance, the Global Alliance for Vaccines and Immunization (GAVI) Sukuk, which funds immunisation programs in the world's poorest countries, has a goal to perpetuate health and well-being. Additionally, the world's first green sukuk has been issued in Malaysia and Indonesia. However, such efforts should ensure that the full cycle of Islamic finance is aligned to include product structure, accounting and reporting that carefully considers the characteristics of various Islamic finance principles and its requirements. This is what I hope to achieve by this book or, at least, contribute towards such an important objective.

Whether you are an Islamic scholar, regulator, academic, student, finance manager, auditor, Shariah compliance manager, risk manager, Islamic finance expert or an observer, the book is structured to be suitable for every reader and could also be used as an academic textbook. My aim for this book is to ensure it benefits all

stakeholders, is accessible to non-experts and is reflected in the structure and language used within the text.

I take you on a journey in this book to explore the way in which religious rules act as a directive for accounting and auditing practices in IFIs, during which, I examine the concept of money and digital currency within the theory of money and how it is enacted in a faith-based context amid differences of opinions among its actors. This is an important foundation to explain Islamic accounting, by identifying two core concepts of today's money as not being a commodity in contrast to the capitalist theory of money and therefore how this outcome shapes the faith-based view regarding the new phenomenon of digital currency (DC). Then, I examine the concept of paper money within the theory of money and how it is enacted in a faith-based legal framework by identifying two core concepts of today's Fiat money as being a single genus or a multi-genera money.

I provide an in-depth discussion and analysis of all chapters in this book that incorporate Islamic jurisprudence and various scholarly views, Islamic commercial laws, accounting principles and accounting and international reporting standards. As I mentioned, I employ multiple theories in this book and analysis of the empirical findings to provide substantial theoretical and practical contributions with policy implications. I also provide a full and comprehensive guide to a faith-based accounting system and to financial and accounting principles for IFIs and the Islamic finance industry as a whole.

The book consists of 14 chapters that are designed to follow a smooth and logical order to take you through the journey and build your knowledge as you progress from one chapter to the next. In Chap. 1, I provide the context for the study of accounting and financial accounting in Islamic finance and its financial institutions. The chapter addresses key issues that underpin the context of this book, which lay down the foundations for the key subjects I cover in this study. The key aspects that I highlight here cover the philosophy of Islamic economics and finance, the evolution and development of Islamic law and jurisprudence, the Shariah code of conduct and the Shariah guidance and governance.

In Chap. 2, I deal with a matter closely related to the subject of usury in Islamic jurisprudence and outline another important foundation in relation to the study of the principles of Islamic accounting, which is the essence of the Shariah rules regarding all forms of exchange transactions of paper currency (fiat money) today. The underlying questions include the following: what money is, how it is viewed, and what is the Islamic worldview of money. As accounting is all about money and assets, it is important to understand the theory of money in both its traditional and Islamic economics contexts. Is the invention of money not only accidental but also incidental and not only to the development of Greek civilization in particular but also to other civilizations in general? What were the causes of this invention, or, in other words, what were the origins of coinage?

Then I move to Chap. 3 to analyse the views of Islamic scholars on the matter of whether modern paper money is a single genus or multi-genera banknotes, where such views are divided into two: the first view considers that paper money is a multiple genus according to countries of issuance, while the second view considers

that paper money is a single genus, regardless of the number of countries printing it and issuing it and of its various names and forms, such as GBP or US dollar. Then, I analyse each view, its argument indicating the reasons for each argument and implications, based on Islamic jurisprudence.

It is then necessary to understand the historical development of Islamic accounting, and this takes place in Chap. 4. In this chapter, I discuss the concept of an accounting system and its objectives as outlined in the Islamic economics and finance system under Islamic rule from its inception over 14 centuries ago. Moreover, I examine the historical development that the accounting systems underwent within the framework of Islamic economics and finance. It explains the most important types of accountancy, accounting terminology, accounting practices, accounting roles and internal controls that were known in the Islamic economics and finance system at that time. I analytically examine the components of the Islamic accounting system in terms of its principles, basis and foundational structure.

After establishing influencing theories and the Islamic worldview about money and accounting, I discuss the practical aspects of the Islamic accounting system and divide all Islamic finance principles into four categories. The first category is discussed in Chap. 5, which analyses the accounting treatment and reporting of equity-based financial instruments in Islamic finance, such as *Musharaka*, *Mudaraba*, etc. Thereafter, in Chap. 6, I discuss the accounting of the second category of Islamic finance principles, the sale-based instruments. This category includes all different types of sales instruments, such as *Murabaha*, *Salam*, *Ijarah* and many more. Then, in Chap. 7, I discuss the third category, which comprises debt-based instruments in Islamic finance highlighting its structures, usage in the Islamic finance market and accounting requirements. The fourth and final category is discussed in Chap. 8. In this chapter, I discussed the charity-based instruments, which include *Takaful* and *Waqf*. I examine their different structures, accounting treatments and disclosure requirements.

I get slightly technical in Chap. 9 but use easily digestible examples to do so. In this chapter, I examine the International Financial Reporting Standard 9 (IFRS 9) from a technical perspective in light of the most common and widely used financing instruments that are equity-based in the Islamic finance industry. As part of this technical analysis of IFRS 9, I identify contractual clauses that are embedded in equity-based (and other instruments) financial products, such as the home finance products, and analyse whether cash flows, payment profile, risks and late payment comply with IFRS 9 tests. I do that to tailor the analysis for Islamic finance instruments and guide IFIs on how they can embed IFRS 9 in their accounting processes.

Chapter 10 provides another technical analysis of IFRS 9 application but this time to various sukuk structures. In applying the IFRS 9 standard to sukuk, I focus the analysis on the economic substance, in addition to other elements. This is done to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The application of IFRS 9 to sukuk, however, would, as I

conclude, require a particular analysis in relation to IFIs and their financial reporting requirements.

IFIs like their traditional counterpart are required to prepare certain analysis and documents that should be submitted annually to financial regulators and authorities. Those documents would provide various accounting and reporting requirements that show the soundness and healthy operation of an IFI. I start addressing these documents in Chap. 11 by explaining the scope, requirements and framework of preparing the Internal Capital Adequacy Assessment Process (ICAAP) to accelerate the changes mandated by Basel III. This also impacts IFIs as its operating approach, risk profile and financial impacts are not fully aligned with their conventional counterparts. Thus, IFIs would be required to tailor their ICAAP to provide a true reflection of their requirements and business impact.

Chapter 12 builds on the analysis of Shariah governance application to the capital adequacy assessment to address the liquidity assessment for IFIs. It analyses relevant aspects and provides a comprehensive guide of the key considerations, components and influencing factors for liquidity assessment in relation to Shariah governance in IFIs. It also provides an insight into the assessment of recovery and resolution plans for IFIs and applicable considerations.

Chapter 13 further adds to the discussion in the previous two chapters and provides an important insight that is essential for its analysis. Stress testing is an important tool for risk management in the operation of IFIs and the Islamic capital market (ICM). Stress testing and reverse stress testing should be incorporated in the capital and liquidity assessments as an integral component. In this regard, I highlight the vital role of stress testing for IFIs in this chapter. I also discuss macro and micro stress testing, the implication of stress testing to IFIs and particular considerations in stress testing and reverse stress testing for IFIs. IFI's products use different liquidity risk approaches due to regional, regulatory, legal, product and operational requirements that may require a particular approach to manage the associated risks.

Chapters 11, 12 and 13 provide unprecedented in-depth insights of the best practices for drafting and preparing regulatory documents tailored to the requirements of IFIs and a stress testing framework for the survival of IFIs in the face of possible market shocks. This subject is critical for two reasons: the survival of the Islamic finance model, which is currently underdeveloped, being hugely dependent on its risk stress testing management approach and the ability to be able to manage such market shocks without compromising Shariah requirements.

Finally, in Chap. 14, I share with you my final thoughts and provide an overall conclusion of this book. I also outline the contributions this book makes towards Islamic economic theory and policy implications to the Islamic finance industry and its institutions.

Therefore, my efforts in this book aim to explain that the type of information which the faith-based accounting identifies and measures is different. Conventional accounting concentrates on identifying economic events and transactions, while the faith-based accounting must identify socio-economic and religious events and economic transactions.

One last point, while I tend to provide constructive criticism of the practices of the Islamic finance industry in order to maintain its integrity and good nature, we should be cognisant of the challenges that this industry faces. The current legal and regulatory framework is not readily fit for Islamic finance; thus, most financial instruments introduced by IFIs fall in a grey area as they raise some uncertainty from regulatory, tax, legal and accounting treatments. IFIs face this challenge on a regular basis, and they are required to satisfy such challenges by incurring additional higher costs through engaging various experts to provide relevant legal, tax and accounting opinions.

This is not always straightforward, as such experts do not take the risk to consider Shariah requirements for each instrument and use sound judgement; instead, they try to squeeze and trim the Islamic finance instrument in order to fit in the conventional framework that they are trained in and are familiar with. This is something I experienced first-hand and challenged on various occasions. Accordingly, IFIs would be under constant pressure to accept such pressures and possibly compromise their Shariah compliance requirements for that legal, tax or accounting opinion to be granted. As a result, Islamic financial instruments would be stripped out of its core Islamic finance values and Shariah objectives, which would appear to any external observer, while still compliant with Shariah, as hardly offering any authentic Islamic principles when compared with conventional instruments.

With these final words, I would like to thank you for taking the time to read my book and make use of its modest findings. I hope that you find the book beneficial and informative.

Birmingham, UK
28 November 2018

Samir Alamad

Acknowledgement

First and foremost, I thank Allah (SWT) for enabling me to produce this work for the benefit of Islamic finance industry. Then, I would like to thank my family, who have always been my source of support and encouragement, for standing beside me throughout my career and the writing of this book.

To my beloved parents, I owe a debt of gratitude for their love, enduring support and prayers for me. It was my father who inspired me to follow this path; although he is no longer with us, his belief in me has motivated me and continuously fuelled my work.

I would like also to thank my friends, who always supported me, many colleagues and individuals from the community and the Islamic finance industry. My thanks are extended to all Islamic banks around the world, particularly to Al Rayan Bank and Aston University who I am part of, which contributed to this book with data and information too and, also, to every sincere Islamic banker who is striving to do the right thing in his or her Islamic financial institution to ensure that the Islamic finance industry does not divert from its true path and values.

I should also acknowledge the support provided by the UK Government over the years to the Islamic finance market in the UK by enabling a level playing field, those who work at the forefront of the political decision-making and senior civil servants who have worked closely with me to structure and launch Islamic finance initiatives in the UK, such as the Takaful Alternative Student Finance, Help to Buy Home Purchase Plan Guarantee Scheme, the UK Sovereign Sukuk, addressing tax issues related to equity-based financial products offered by Islamic banks in the UK and many more. All these initiatives supported the Islamic finance market and ensured financial inclusion of the British Muslim and other communities in the UK.

Contents

1 Introduction: The Basics of Islamic Economics and Finance 1
1.1 Fundamentals of Islamic Law and Islamic Finance 1
1.2 Islam: Comprehensive Guidance in All Human Affairs 3
1.2.1 A Universal Message in an Evolving World 3
1.2.2 Evolution of Islamic Law 4
1.2.3 Common Law Characteristics and Legal Maxims 5
1.3 History and Development of Islamic Finance 6
1.4 Shariah Guidance in Financial Matters 8
1.4.1 Ethics 8
1.4.2 Restrictions in Financial Transactions 11
1.4.3 Riba, Usury and Bank Interest 12
1.5 Bank Financing Without Riba 13
1.5.1 The Jurists' Approach 13
1.5.2 Substance and Form 14
1.5.3 The Economists' Approach 15
1.6 Shariah Compliance and Shariah Governance 15
1.6.1 Shariah Boards of Islamic Financial Institutions 17
1.6.2 Fatwas on Products and Shariah Reports 18
1.6.3 National Shariah Board 19
1.7 Conclusion 20

2 Money, Its Origins, Nature and the Time Value of Money 21
2.1 Introduction 21
2.2 The Concept of Money in Society 22
2.2.1 Bartering 22
2.3 What Is Money? 24
2.4 Pre-metallic Money 26
2.4.1 Cowrie 26
2.4.2 Fijian 27
2.4.3 Wampum: The Favourite American-Indian Money 27

2.4.4 Cattle: Man's First Working-Capital Asset 28
2.5 Pre-coinage Metallic Money 28
2.6 Coinage 31
2.7 Paper Money 36
2.8 Faith-Based Concept of Money 37
2.9 The Nature of Money 40
2.10 Time Value of Money 42
2.11 Conclusion 46

3 An Analysis of Paper Money and the Concept of Multi-genus Banknotes 49
3.1 Introduction 49
3.2 The Theory of Money 50
3.3 A Comparative Analysis of Paper Money in Islamic Economics 52
3.3.1 Paper Money Is Multiple Genera According to Issuing Countries 52
3.3.2 Paper Money Is a Single Genus Regardless of the Number of Issuing Countries 54
3.4 Discussion of the Two Views of Paper Money 55
3.4.1 Discussion of the Rationale of the First View 56
3.4.2 Discussion of the Rationale of the Second View 59
3.5 Digital Currency in the Context of Islamic Jurisprudence 62
3.5.1 How Is Digital Currency Money and How It Works? 63
3.5.2 Digital Currencies from an Islamic Economics and Finance Perspective 66
3.6 Conclusion 72

4 The Origins of Accounting in the Islamic Economics and Finance System 75
4.1 Introduction 75
4.2 Evolution of Accounting Systems and Its Types in Islamic Economics and Finance 77
4.3 Components of the Accounting System in Islamic Economics and Finance 79
4.3.1 Components of the Accounting System 80
4.3.2 Elements of the Accounting System in Islamic Economics and Finance 82
4.4 Accounting, Internal Control and Audit in the Faith-Based System 87
4.4.1 Good Organizational Plan 87
4.4.2 The Hermetic Accounting System 88
4.4.3 Qualified Individuals 89
4.5 Conclusion 92

5 Islamic Financial Instruments: Accounting of Equity-Based Contracts 95
5.1 Introduction 95
5.2 Financial Instruments Based on Partnership (*Musharaka*) Contracts 96
5.2.1 Juristic Requirements of Partnership Contract 98
5.2.2 Accounting Treatment of Diminishing *Musharaka* 101
5.2.3 Accounting Treatment of Joint Arrangements 104
5.3 Diminishing *Musharaka* for Home Financing 104
5.3.1 IFRS Treatment 106
5.4 *Mudaraba* (Venture Capital): Silent Partnership 106
5.4.1 Differences Between *Mudaraba* and *Musharaka* 106
5.4.2 *Mudaraba* Financing Arrangement 108
5.4.3 *Mudaraba*-Based "Deposit" Products 109
5.4.4 Profit Smoothing 110
5.4.5 Profit Calculation Process 113
5.4.6 Investment Accounts Classification on the Balance Sheet 114
5.4.7 IFRS Treatment 115
5.5 Conclusion 115

6 Islamic Financial Instruments: Accounting of Sale-Based Contracts 119
6.1 Introduction 119
6.2 Types of a Sale Contract in Islamic Jurisprudence 120
6.2.1 General Sale (*Bay' Al-mutlaq*) 120
6.2.2 Exchange Sale (*Bay' Al-sarf*) 121
6.2.3 Sale at Cost Price (*Bay'* Al-tawliyyah) 121
6.2.4 Sale at Discount (*Bay' Al-wadhi'a*) 122
6.2.5 Bargaining Sale (*Bay' Al-musawamah*) 122
6.3 *Murabaha* (Mark-Up Sale Contract) 122
6.3.1 *Murabaha* Financing by Deferred Payment 123
6.3.2 *Murabaha* to the Purchase Orderer 124
6.3.3 Risk Mitigation for *Murabaha* with Deferred Payment 125
6.4 Value Added by IFIs Financing of the Sales Contract 126
6.5 IFRS Accounting Treatment 127
6.6 *Tawarruq* (Monetisation) 130
6.6.1 Operational Aspects of *Tawarruq* 131
6.6.2 Key Principles of *Tawarruq* Contract 132
6.6.3 IFRS Accounting Treatment of *Tawarruq* 133
6.7 Salam 134
6.7.1 Important Aspects of a *Salam* Contract 135
6.7.2 *Salam*: Flexible Financing Arrangement 136

6.7.3 Risk Profile of *Salam* . . . 137
6.7.4 IFRS Accounting Treatment of *Salam* . . . 140
6.8 Istisna' . . . 143
6.8.1 Key Aspects of *Istisna'* (Manufacturing Contract) . . . 143
6.8.2 Parallel *Istisna'* Structure . . . 145
6.8.3 Risk Exposure of *Istisna'* Financing . . . 147
6.8.4 IFRS Accounting Treatment of *Istisna'* . . . 148
6.9 Ijarah . . . 149
6.9.1 Key Aspects of *Ijarah* . . . 151
6.9.2 *Ijarah* as Operating Lease . . . 153
6.9.3 Ijarah *Muntahia Bittamleek* as a Finance Lease . . . 154
6.9.4 IFRS Treatment of *Ijarah* . . . 156
6.9.5 Combined Operating and Finance Leases . . . 162
6.9.6 Sale and Leaseback . . . 163
6.10 Conclusion . . . 163

7 Islamic Financial Instruments: Accounting of Debt-Based Contracts . . . 167
7.1 Introduction . . . 167
7.2 *Qard* (Interest-Free Loan) . . . 168
7.2.1 Key Aspects of *Qard* . . . 169
7.3 *Amanah* (Trust Deposit) . . . 170
7.4 *Wadi'a* (Safe Custody Deposit) . . . 171
7.4.1 Key Aspects of *Wadi'a* . . . 172
7.5 Accounting Treatment of Debt-Based Contracts . . . 173
7.6 Conclusion . . . 174

8 Islamic Financial Instruments: Accounting of Charitable Contracts . . . 175
8.1 Introduction . . . 175
8.2 *Takaful* (Cooperative Financial Arrangement) . . . 176
8.2.1 Key Aspects of *Takaful* . . . 177
8.2.2 *Takaful* Participants and *Takaful* Operator . . . 179
8.2.3 *Takaful* Undertakings as Hybrids . . . 180
8.2.4 Summary of *Takaful* Operating Models . . . 181
8.3 Governance Issues Related to *Takaful* . . . 183
8.4 Accounting Treatment of Charity-Based Contracts: *Takaful* . . . 186
8.4.1 IFRS Treatment . . . 186
8.5 Accounting Treatment of a *Takaful*-Based Alternative Student Finance . . . 190
8.5.1 TASF IFRS Accounting Treatment . . . 194
8.6 Disclosure of Significant Accounting Policies for *Takaful*-Based Instruments . . . 199
8.7 *Waqf* (Endowment) . . . 200
8.7.1 An Overview of *Waqf* . . . 202

8.7.2 Key Aspects of *Waqf* . . . 202
8.7.3 Types of *Waqf* . . . 203
8.7.4 Shariah Requirements of *Waqf* . . . 204
8.8 Accounting Treatment of Charity-Based Contracts: *Waqf* . . . 205
8.9 Conclusion . . . 207

9 Technical Analysis of the International Financial Reporting Standard 9 . . . 209
9.1 Introduction . . . 209
9.2 IFRS 9 Analysis of Diminishing Musharaka with Ijara and Similar Instruments . . . 210
9.3 Analysis of the Solely Payments of Principal and Profit (SPPP) Under IFRS 9 . . . 214
9.3.1 Rental/Profit Rate Analysis . . . 214
9.3.2 IFRS 9 Analysis of the Rental/Profit Rate . . . 215
9.3.3 IFRS 9 Analysis of Delay Payment . . . 218
9.3.4 IFRS 9 Analysis of Additional Acquisition Payment . . . 220
9.4 *Wakala* Investment Agency IFRS 9 Analysis . . . 221
9.4.1 Applicable Accounting Standard to the *Wakala* . . . 223
9.4.2 IFRS 9 Analysis of the *Wakala* Receivable . . . 223
9.5 Commodity *Murabaha* IFRS 9 Analysis . . . 226
9.5.1 Applicable accounting standard to the Commodity *Murabaha* Instrument . . . 227
9.5.2 IFRS 9 analysis of the Commodity *Murabaha* Instrument . . . 228
9.6 Conclusion . . . 230

10 Technical Analysis of IFRS 9 Application to Sukuk . . . 233
10.1 Introduction . . . 233
10.2 Applicable Accounting Standard to Sukuk . . . 234
10.2.1 Nature of the Financial Instrument: Debt or Equity? . . . 235
10.3 IFRS 9 Analysis . . . 237
10.3.1 Non-recourse Financing . . . 237
10.3.2 Non-recourse Features . . . 239
10.3.3 Prepayment Options . . . 251
10.3.4 Late Payment . . . 253
10.4 Conclusion . . . 255

11 Internal Capital Adequacy Assessment in IFIs . . . 257
11.1 Introduction . . . 257
11.2 ICAAP Preparation Methodology . . . 260
11.2.1 Approach to Calculating Pillar 1 and Pillar 2 . . . 261
11.2.2 Capital Buffers . . . 262
11.3 ICAAP Requirements and Capital Resources . . . 262

11.4 Risk Governance and Management Framework in ICAAP 265
11.4.1 Governance of ICAAP 266
11.4.2 Risk Management Framework 266
11.4.3 Risk Management of Shariah Non-compliance Risk 270
11.5 Risk Appetite Monitoring and Reporting 271
11.5.1 Risk Monitoring 272
11.5.2 Three Lines of Defence Approach to Risk Management 272
11.6 Conclusion 274

12 Liquidity Assessment, Recovery and Resolution Strategies in IFIs 277
12.1 Introduction 277
12.1.1 Scope 279
12.2 Liquidity Risk Drivers and Liquidity Resources 280
12.2.1 Key Points for Assessing Liquidity in IFIs 280
12.2.2 Liquidity Risk Drivers 281
12.3 Liquidity Risk Assessment 283
12.3.1 Liquidity Stress Scenario 283
12.3.2 Liquidity Stress Impact 284
12.4 Inherent Funding Risk Assessment 285
12.4.1 Retail Funding 285
12.4.2 Wholesale Funding 286
12.4.3 High Quality Liquid Assets (HQLA) 286
12.5 Recovery Planning 287
12.5.1 Governance of the Recovery Plan 289
12.5.2 Documentation of the Recovery Plan 289
12.5.3 Integration of the Recovery Plan 290
12.5.4 Critical Functions 290
12.5.5 Scenario Testing 291
12.5.6 Triggers of the Recovery Plan 291
12.5.7 Recovery Options 292
12.5.8 Testing, Feasibility and Updating 292
12.5.9 Communication 293
12.6 Resolution Planning 293
12.6.1 Capital and Liquidity Resources 296
12.6.2 Resolution Strategy 296
12.6.3 Operational Resilience 297
12.7 Conclusion 297

13 Stress Testing Methodologies for Islamic Finance 299
13.1 Introduction 299
13.2 Stress Scenario and Sensitivity Testing 300
13.3 Liquidity Stress Testing 303

13.3.1 Regulatory Requirements and Guidance 305
13.3.2 Liquidity Risk Stress Testing Framework 306
13.4 Micro Stress Test 308
13.4.1 Elements of Micro-Prudential Stress Tests 308
13.5 Macro Stress Test 309
13.5.1 Elements of Macro-Prudential Stress Tests 309
13.6 Dynamics of IFIs' Liquidity Position 310
13.6.1 Factors Which Might Impact Liquidity Position 310
13.7 Reverse Stress Testing 311
13.8 Conclusion 316

14 Conclusion 319
14.1 Introduction 319
14.2 Concluding Thoughts 319
14.3 Book Contribution 327
14.4 Policy Implications 329

Glossary 331

References 337

Index 345

List of Common Abbreviations

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
AH	After the Hijra: referring to the migration of the Prophet Muhammad to Madina from Makka. The Islamic lunar calendar starts from this event.
BIA	Basic Indicator Approach
CCoB	Capital conservation buffer
CCyB	Countercyclical capital buffer
CET 1	Core Equity Tier 1
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
EWI	Early warning indicator
FCA	Financial Conduct Authority
FTV	Finance to value
FX	Foreign exchange
GCC	Gulf Cooperation Council
GDP	Gross domestic product
G-SII	Global Systemically Important Institutions
HHI	Herfindahl-Hirschman Index
HQLA	High-quality liquid assets
IAS	International Accounting Standards
IB	Islamic banking
ICAAP	Internal Capital Adequacy Assessment Process
ICG	Individual Capital Guidance
IFI	Islamic financial institution
IFRS	International Financial Reporting Standards
IFSB	Islamic Financial Services Board
ILAAP	Internal Liquidity Adequacy Assessment Process
IRB	Internal rating-based
KCIs	Key control indicators
KPIs	Key performance indicators

KRIs	Key risk indicators
Minimum Regulatory Capital	The total of Pillar 1 plus Pillar 2A
PBUH	Peace be upon him
Pillar 1	Pillar 1 deals with the maintenance of regulatory capital calculated for three major components of risk that a bank faces: credit, operational and market risks
Pillar 2	It provides the framework for dealing with risks not fully or not covered under Pillar 1
PRA	Prudential Regulation Authority
PRA Buffer	Buffer set using supervisory judgement informed by the impact of stress scenarios on a firm's capital requirements and resources and taking account where appropriate of other factors including leverage, systemic importance and weaknesses in firms' risk management and governance
PRRBB	Profit rate risk in the banking book
RCSA	Risk and control self-assessment
RMF	Risk management framework
RRP	Recovery and resolution plan
RWAs	Risk-weighted assets
SA	Standardised approach
SLC	Student Loans Company
SRB	Systemic risk buffer
SREP	Supervisory Review and Evaluation Process
SSC/SSB	Shariah Supervisory Committee/Board
TASF	Takaful Alternative Student Finance
TO	Takaful operator

List of Figures

Fig. 1.1 The Islamic worldview 4
Fig. 1.2 Chronology of the formation of Islamic legal schools 5
Fig. 1.3 Dimensions of business ethics 9
Fig. 1.4 *Riba*-free financing system 16
Fig. 1.5 Islamic financing techniques and instruments 16

Fig. 4.1 Elements of the accounting system in Islamic economics and finance 82

Fig. 5.1 Islamic financing techniques: equity-based instruments 96
Fig. 5.2 Typical structure of *musharaka* financing 100
Fig. 5.3 Diminishing partnership financing structure 101
Fig. 5.4 *Mudaraba* partnership financing structure 107

Fig. 6.1 Islamic financing techniques: sale-based instruments 120
Fig. 6.2 Typical structure of a *murabaha* contract 123
Fig. 6.3 *Tawarruq* structure 131
Fig. 6.4 Structure of a *salam* contract 135
Fig. 6.5 Parallel *salam* structure 138
Fig. 6.6 Hybrid *salam* structure 140
Fig. 6.7 Structure of an *Istisna'* contract 145
Fig. 6.8 Structure of a parallel *Istisna'* contract 146
Fig. 6.9 *Ijarah* principle as a concept 150
Fig. 6.10 Structure of *ijarah* as a lease finance 155

Fig. 7.1 Islamic financing techniques: debt-based instruments 168
Fig. 7.2 Typical structure of a *qard* contract 169

Fig. 8.1 Islamic financing techniques: charity-based instruments 176
Fig. 8.2 Typical structure of a *takaful* model 177
Fig. 8.3 Hybrid *wakala-mudaraba*-based *takaful* model 182
Fig. 8.4 Illustration of IFRS accounting changes (KPMG 2017) 187
Fig. 8.5 IFRS 17 accounting model (source: IFRS Foundation) 189
Fig. 8.6 Structure of the *Takaful* Alternative Student Finance solution 193

Fig. 9.1 Correlation between LIBOR and BoE base rate 217
Fig. 9.2 Classification and measurement of an instrument under IFRS 9 231

Fig. 11.1 ICAAP risk management framework for IFIs (based on the European regulatory framework) 267
Fig. 11.2 Risk strategy and risk appetite 268

Fig. 12.1 Crisis management framework (source, JPM 2017) 295

Fig. 13.1 Liquidity risk stress testing framework 307
Fig. 13.2 (**a**) Regular and (**b**) reverse stress tests (Grundke 2011) 315

List of Tables

Table 6.1 Accounting treatment of operating lease 164

Table 9.1 SPPP delay payment analysis 219

Table 10.1 Accounting analysis of sukuk contractual obligations 236

Table 11.1 Example of regulatory capital requirements and resources 264

Table 11.2 Principal level 1 risks in IFI 269

Table 13.1 Stress testing scenarios 312

Table 13.2 Stress testing factors 314

Chapter 1
Introduction: The Basics of Islamic Economics and Finance

1.1 Fundamentals of Islamic Law and Islamic Finance

The teachings of Islam encompass the essence of economic well-being and the development of Muslims at the individual, family, society and state levels. In order to appreciate the Islamic concepts of banking and finance, it is essential to place them within the context of the beliefs and philosophy underlying Islam. Therefore, this chapter provides the context for the study of accounting and financial accounting in Islamic finance and its financial institutions. The chapter addresses key issues that underpin the context of this book, which lay down the foundations for the important topics I cover in this study. The key aspects that I highlight here cover the philosophy of Islamic economics and finance, the evolution and development of Islamic law and jurisprudence, Shariah code of conduct and Shariah guidance and governance. Islam provides a comprehensive code and approach to life, and Islamic teachings reach beyond many views of worship and spirituality. An important element of Islamic thought describes the relationship between the created and the Creator with respect to wealth. As a fundamental principle, Islam encourages humans to embrace a role of stewardship for the earth and its bounty. The other fundamental principle is necessarily ethical in relation to behaviour and conduct and reaches deeply into commerce and economics (Alamad 2017b).

The Qur'an (the revealed text of Islam) and the Sunnah (the authentic sayings, actions and observations of the Prophet Muhammad (pbuh) provide, respectively, the primary source of understanding for the application of Islamic guidance to commerce. One of the strongest rules is the prohibition on interest (*riba*). This, and other rules which I have described briefly in this text, affect how many Muslims seek to interact with commerce. Although strict adherence to Islamic rules has a significant impact on how Muslims approach banking, the Islamic banking approach is closer to investment banking than other conventional banking activities. Given that investment banking deals more with real economic activities and less with speculative activities, the Islamic business approach can be adopted with relative ease.

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_1

It is not sufficient to just implement Islamic finance principles to ensure that the Islamic banking system is fulfilling the Shariah requirements. Compliance with Shariah goes beyond that to ensuring that internal process of accounting and financial accounting, for instance, are done in accordance with this framework. It should consider how international accounting standards and regulatory reporting that usually do not give specific regards to Islamic finance and operations of Islamic financial institutions (IFIs) are tailored to be fit for purpose in relation to their accounting system and reporting requirements. Unfortunately, this is not the case at the moment, while it is not fair to generalise in this way, it is safe to say the common accounting practices in Islamic banking needs a serious examination.

The Qur'an names human beings as God's stewards in the created world. Within this mandate, private property is permitted with the understanding that whatever wealth or property a person 'owns' is given by God as a trust. As a result, Muslims are expected to adhere to moral guidance governing property and wealth and maintain this trust. In some cases, this means that certain behaviour and activities must be avoided without any exception, such as the ban on usury and its associated practices. In other cases, a Muslim should seek to minimise, as much as possible, incidental exposure to things that should be avoided. The array of guidance includes clear Qur'anic injunctions, specific or derived obligations defined in the Sunnah, and established customs. Certain activities, including the paying and receipt of riba, are denied to Muslims in connection with the concepts of *tawhid* (Belief in the Oneness of God), (Kamali 2008).

The scope of humanity's stewardship is sufficiently broad to embrace both free market and socialistic views of economic organisation. During the life of Prophet Muhammad (pbuh), Muslims clearly lived in a market economy and trade environment, the Prophet (pbuh) was himself a successful businessman. But the Prophetic traditions and the rulings of early Muslim rulers and jurists, as I will explain in the coming chapters, demonstrate limits on the market. These are meant to ensure fairness, justice and transparency. These limits will become clear later in this book and its various chapters.

Islam binds social values and commerce; as a result, everyone with more than a minimum amount of wealth is obliged to purify his or her wealth by paying Zakat, a simple accounting requirement that every eligible Muslim should perform annually. Indeed, Muslims are frequently encouraged in the Qur'an to give charity or *sadaqat*. The importance of charity is such that it is often mentioned in conjunction with prayer. The consensus view of Islamic scholars is that interest on loans is the same as the forbidden *riba* (Vogel and Hayes 1998). As a result, many Muslims shun the conventional banking and finance system. Although some philosophers have justified the reasons for banning interest, the Qur'anic ban on *riba* is absolute and without rationalisation. As a result, those Muslim consumers who believe that interest and *riba* are the same thing, find this to be a matter of eternal importance and will not be satisfied with clever ethnic or religious values-oriented marketing.

1.2 Islam: Comprehensive Guidance in All Human Affairs

Islam is a comprehensive world view that gives guidance to Muslims not only with respect to the life in the hereafter, but also regarding mundane questions of this world. The basis for this guidance is the Qur'an which is the authentic and eternal word of God and the Sunnah of the Prophet. It is of relevance for the Muslims of all times and at all places. This world view is illustrated in the sections below.

1.2.1 A Universal Message in an Evolving World

While the message is universal and does not change, the circumstances of time and space do change. Much of the guidance of the Qur'an for the right conduct of life is given in the form of principles, but also in a limited number of more specific instructions. Prophet Muhammad (pbuh) gave interpretations, explanations and provided for the appropriate application of the principles and instructions in an exemplary manner. This tradition is recorded in the Sunnah, which is based on collections of *Hadith* (reliably reported sayings and acts of Prophet Muhammad (pbuh)).

Muhammad (pbuh) was not only the Prophet of Islam but also the first head of a Muslim state, and he settled disputes and acted as an arbitrator and judge. His guidance was definite insofar as matters of faith were concerned. But, he also gave guidance for mundane matters, including politics and business. His interpretation and application of Qur'an were the best possible for the political and economic environment in which he acted. Therefore, his example is very important for the understanding of the principles of the Qur'an, and it must be studied carefully (Laldin 2008). However, not all instructions and actions of Muhammad (pbuh) were of eternal value or universal validity, but related to the specific situation of his time and place. With changing circumstances of time and space, adjustments, adaptations and additions became necessary.

For example, when the Muslims expanded into the region of today's Iraq, they were confronted with a new economic and legal system based on agriculture with elaborate irrigation systems. The Muslim rulers and scholars had to integrate new forms of property and rights of land use into the existing legal and tax system of the state. The system of comprehensive guidance had to be revised according to circumstances which changed with time and space. This was not only an intellectual necessity, but also of practical relevance because legal disputes had to be solved and new cases had to be decided. Thus, the evolution of the Islamic system became the task of scholars who were not only well versed in theology, but also in jurisprudence (Fig. 1.1).

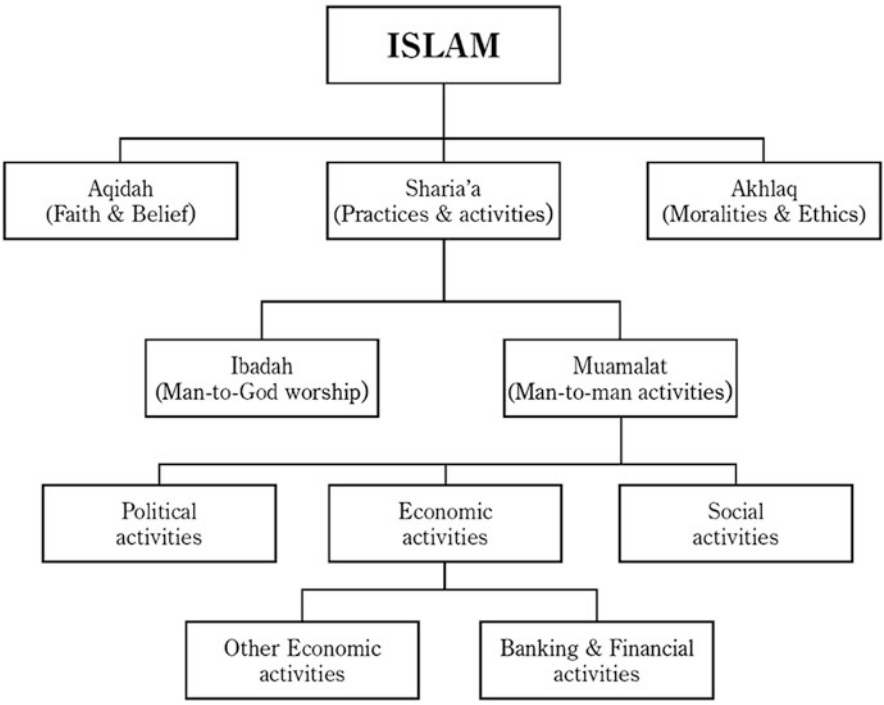
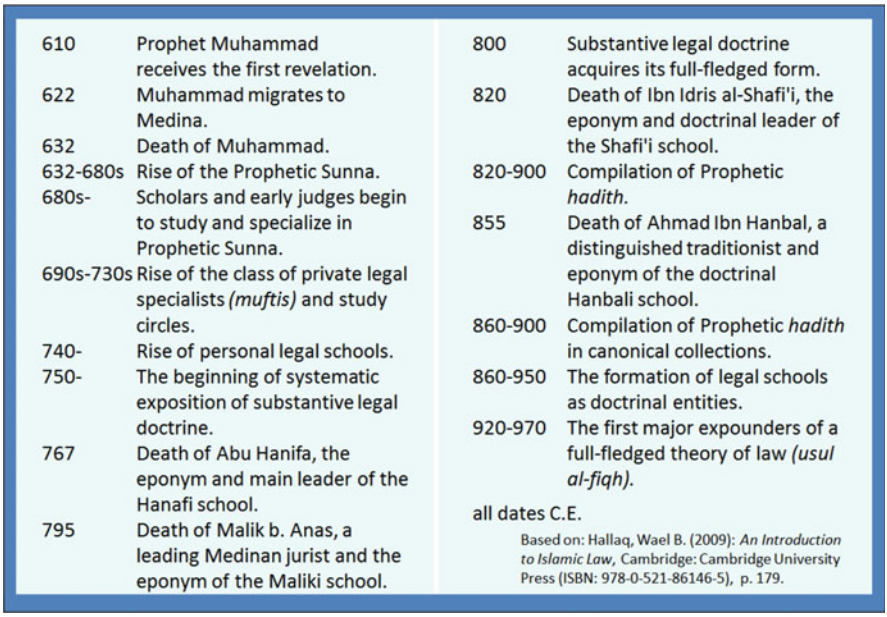


Fig. 1.1 The Islamic worldview

1.2.2 Evolution of Islamic Law

Whenever a new matter had to be integrated into the Islamic system, or a case with new characteristics had to be decided, the typical procedures have been (and is) the following:

- The Qur'an and the Sunnah are screened for similar cases. This requires a deep textual and contextual knowledge of these two primary sources.
- Based on the findings, an analogy of the new case with cases covered by the primary sources should be established. Views and *Ijma'* (consensus) of eminent Islamic scholars should be consulted (irrespective of the date when they were written), and the rules of the science of the principles of Islamic jurisprudence (*usul al-fiqh*) have to be observed.
- If the analogy is felt to be weak, or if different analogies could be drawn, different additional secondary sources were consulted to find a solution. During the first 3–4 centuries different schools of legal thought had emerged which differed, *inter alia*, with respect to the importance attached to the "auxiliary" secondary sources which could be, for example, the opinions of the companions of the Prophet on similar issues, or the practice of the people of Medina as stated in the Malki school of *fiqh*. Both had direct contacts with the Prophet (Vogel and Hayes 1998).



610	Prophet Muhammad receives the first revelation.
622	Muhammad migrates to Medina.
632	Death of Muhammad.
632-680s	Rise of the Prophetic Sunna.
680s-	Scholars and early judges begin to study and specialize in Prophetic Sunna.
690s-730s	Rise of the class of private legal specialists *(muftis)* and study circles.
740-	Rise of personal legal schools.
750-	The beginning of systematic exposition of substantive legal doctrine.
767	Death of Abu Hanifa, the eponym and main leader of the Hanafi school.
795	Death of Malik b. Anas, a leading Medinan jurist and the eponym of the Maliki school.
800	Substantive legal doctrine acquires its full-fledged form.
820	Death of Ibn Idris al-Shafi'i, the eponym and doctrinal leader of the Shafi'i school.
820-900	Compilation of Prophetic *hadith*.
855	Death of Ahmad Ibn Hanbal, a distinguished traditionist and eponym of the doctrinal Hanbali school.
860-900	Compilation of Prophetic *hadith* in canonical collections.
860-950	The formation of legal schools as doctrinal entities.
920-970	The first major expounders of a full-fledged theory of law *(usul al-fiqh)*.

all dates C.E.

Based on: Hallaq, Wael B. (2009): *An Introduction to Islamic Law*, Cambridge: Cambridge University Press (ISBN: 978-0-521-86146-5), p. 179.

Fig. 1.2 Chronology of the formation of Islamic legal schools

A more "rationalistic" approach, which has become rather popular today, is the reference to the public interest (*maslahah*) as an overarching principle (Ismail and Rahman 2013), which can be applied when more specific principles are not available. This evolution is briefly outlined in Fig. 1.2.

As long as circumstances did not change in a way that trigger a new consideration, Islamic scholars adhered to the methodology of their school only. This ensured the consistency of decisions on new cases with the existing body of law. However, in times of radical changes, the gradualist approach and the strict adherence to a traditional methodology may not lead to an adequate solution. Therefore, Islamic scholars today look for solutions beyond their own school, and increasingly collective efforts are made by international bodies, such as the *Fiqh Academy of the Organisation of Islamic Cooperation*, the *Islamic Fiqh Academy of the Muslim World League* or the Shariah Board of the *Accounting and Auditing Organisation for Islamic Financial Institutions.* They aim to come up with widely acceptable solutions compatible with the existing body of Shariah.

1.2.3 Common Law Characteristics and Legal Maxims

As the basic principles for Islamic jurisprudence are founded in the Qur'an and the Sunnah, Islamic scholars were reluctant to develop their own comprehensive

theories of Islamic law, and to go beyond the solution of a particular present case by discussing hypothetical other cases. Except for the Hanafi school, who initiated the concept of "what if", where they discussed hypothetical events that did not happen. Since analogy, among other instruments, is the prime instrument for the advancement of the Islamic system of guidance in mundane affairs, new legal views are only necessary and possible if changing circumstances of time and space have created new cases. However, future circumstances of time and space are not known today, hence it is impossible to anticipate analogies for all future cases, and it is futile to speculate about the solution of hypothetical cases, which may never happen. So, the classical schools of Islamic thought did not develop their own principle-based general theories of Islamic law with the intention to generate new knowledge (Kamali 2008). With the Qur'an as the basic text for all legal issues and the readiness to adjust, amend and supplement the existing body of juristic knowledge if necessary, Islamic jurists seemingly did not see the need (or possibility) to produce a definite written legal code. Instead, Islamic law evolved as a case law, and it has structural similarities with the British common law (and less with the statutory law of the continental European civil law systems).

1.3 History and Development of Islamic Finance

After discussing the basic principles of Islamic economics and Islamic finance, it would be useful for the reader to briefly learn about the history of Islamic finance. The following sections take you in a quick journey through the history of Islamic finance, so let us explore briefly the development of Islamic finance and its industry through the ages.

In 650–750 CE Islam was revealed unto the Prophet Muhammad (pbuh) and spread through the cities of Mecca and Madina. Earlier, these cities prospered through local business and international trade. Interest based loans were the major source for the financial practices at that time. The businessmen of Mecca and agricultural farmers of Madina met their financial requirements by taking or making such loans. After the emergence of Islam, there was a significant change in the financial practices of these cities. The Quranic verses that prohibit the dealing in interest, the consumption of certain commodities and regulate the methods of trade laid the foundation of Islamic finance. These principles were practiced successfully in the two cities and also spread to other parts of the world with expansion of the state for centuries.

Bait al-Maal (the state treasury, See Chap. 4 for more details) was the central Islamic treasury that intended for the benefit of the needy Muslims in Prophet Muhammad's (pbuh) time is evidence that the development of Islamic financial system started during that time. Mosque of Madina was used as the treasury by the Prophet (pbuh). But, Omar Ibn Al-Khattab (ra), the second caliph, established and operated *Bait al-Maal* as a separate entity. Zakat, land tax or *Kharaj*, poll tax or *Jizia*, customs duties, donations, property with no ownership and estates of deceased

persons who had no legitimate heirs were the major sources of revenue for *Bait al-maal* as I will be discussing in more details later on in the book. Apart from the establishment of *Bait al-maal*, historical evidence confirms the existence of the bill of exchange and cheques in the early days of Islam (Alamad 2017a). For example, Ibn Abbas (ra) received the *Wariq* (silver minted into dirhams) and sent an acknowledgement to Kufa (a city in Iraq). Similarly, Abdallah Ibn Al Zubair (rd) received cash in Mecca and wrote to his brother in Iraq who repaid the depositors when they arrived in Iraq. Sayf al-Dawalah al-Hamdani was probably the first person in Islamic finance history to use cheques as was reported by various sources (Alamad 2017a).

During the period of 750–1900 CE there was not any significant literature available that reported on how Islamic economics and finance had developed during that period. Particularly, detailed information about the financial system during the Ottomans, Mughals, India and Damascus is not available. One can say that there was a massive expansion in regional, national and international trade, which was spread over Rome, North Africa, Turkey, India and Sumatra. It was mostly carried on *Musharaka* (profit and loss sharing) basis, sales contracts and profit sharing contracts (*Mudaraba*). In addition, the financial instruments like *Sak* or *Sukuk*, *Saftija*, *Bai' al-wafa`* and *Bai' al-naqed* were also used and practiced (Siddiqi 2004).

The rapid development in the Islamic finance system and the establishment of Islamic banking happened during the period from 1900 CE to 2000 CE, in the nineteenth century. There was, during that period, a notable expansion of the interest based conventional banking system after the industrial revolution in the early period of nineteenth century in Europe. Muslim scholars of the time took this expansion of interest-based banking seriously and called for alternative financial instruments within the Shariah norms to meet the needs of Muslim society. In 1903, the Egyptians opposed the 'interest' in the banking system in a formal way when the payment of interest on post office saving funds was declared illegal by Shariah scholars in Egypt (Siddiqi 2004). It was followed by the movement against the interest-based funds for the construction of the Suez Canal raised by Barclays Bank. Further, in India, an institution for interest-free loans was established during 1890s. It was followed by another such institution called "*Anjuman Imdad-e-Bahmi Qardh Bila Sud*" (Interest Free Credit Society) in Hyderabad in 1923. Later, in the 1950s a local Islamic bank, which is said to be the first modern Islamic financial institution established in Pakistan, we do not have a reliable and enough information about this project.

By the end of the 1950s the Muslim society had successfully developed an interest-free bank based on trust financing or *Mudarabah* and agency or *Wakala*. The demand for Shariah compliant banking was met by the establishment of Mit Ghamr Local Savings Fund in Egypt in 1963 by noted social activist Ahmad al-Najjar and is widely considered to be the first modern Islamic bank. During the same period, there were efforts in Malaysia to develop a savings scheme for Muslims to perform the Pilgrimage which resulted in the Pilgrims' Savings Corporation. It was later incorporated into the Pilgrims' Management and Fund Board, which was popularly known as Tabung Haji in 1969 (Ayub 2007; Alamad 2017a).

In 1971, the Nasir Social Bank was established in Egypt. It was the first state-sponsored interest-free institution established by a presidential decree. The prominent

Islamic banks i.e. the Dubai Islamic Bank and Islamic Development Bank were established in the year 1975. In addition to that, an investment company known as Islamic Investment Company (IIC) was established in Bahamas in the year 1977. Moreover, to carry out comprehensive research in this field, the first specialised research institution; namely, the Centre for Research in Islamic Economics was established at the King Abdul Aziz University of Jeddah, in 1978 (Siddiqi 2004; Marifa Academy 2014).

The Islamic financial services industry began its rapid growth and expansion during 1980s. The major developments of the 1980s include serious research work, constitutional protection in three Muslim countries namely Iran, Pakistan and Sudan, and the involvement of conventional bankers in offering Shariah-compliant services. The International Monetary Fund (IMF) initiated research on the macroeconomic implications of an economic system operating on interest free basis. Countries such as Malaysia and Bahrain started Islamic banking within the framework of the existing system. Bank Islam Malaysia Berhad (BIMB) was established in July 1, 1983 in Malaysia. Another significant development during this period was the granting of an Islamic bank license in Saudi Arabia to the 50-year-old Al-Rajhi Company, a firm that started operation in 1985 under the name Al-Rajhi Banking Investment Corporation (Ayub 2007; Marifa Academy 2014).

1.4 Shariah Guidance in Financial Matters

Shariah provides guidance in financial matters in several respects. On the one hand, the mainstream outlines a business ethics which is conducive to a competitive market economy driven by profit seeking market participants, but it also calls for moderation in consumption and for support of the poor and needy. On the other hand, it sets limits to the individual freedom by specific prohibitions and stipulations (for example: no consumption or production of 'haram (prohibited)' items, such as alcoholic drinks, pork, gambling; clarity in contracts).

1.4.1 Ethics

Ethics in Islam can be seen from an individual and a social perspective: It gives guidance for the morally correct behaviour of a person, and it reflects on principles for the structuring of socio-economic institutions which facilitate a morally correct and socially beneficial conduct of business. Much attention is paid to the social responsibility of organizations (including corporations). In a slightly extended version the principles of a morally correct behaviour, the social responsibility of organizations, and the supportive institutions define the core elements of a religiously viable economic order (Gambling and Karim 1991). These dimensions are shown in Fig. 1.3.

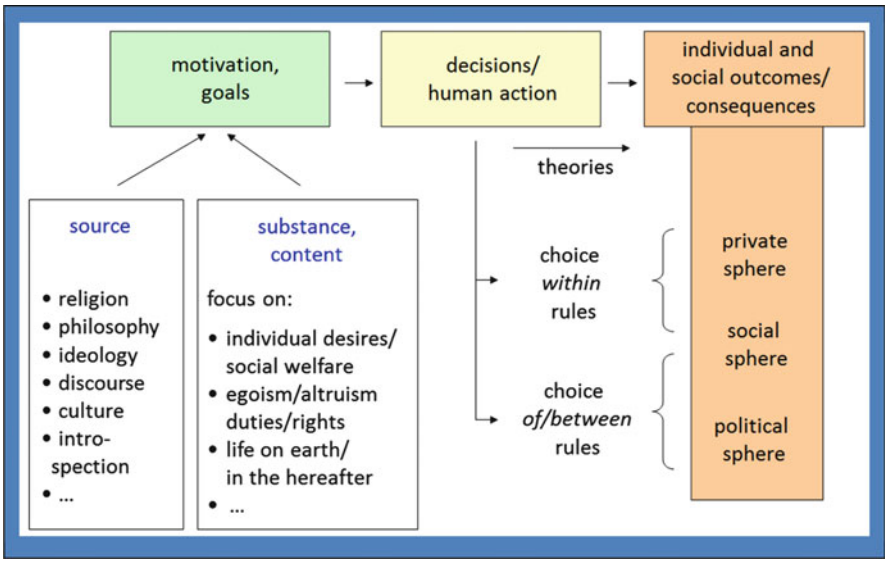


Fig. 1.3 Dimensions of business ethics

From an Islamic perspective, commercial ethics depend primarily on the principles and rules of the Islamic faith and the Shariah. Ethics are an integral part of the Shariah, which has certain foundations and principles on which the ethical values are based. The following are some prominent ethical principles for individual and corporate behaviour and for the design of an appropriate institutional framework (Ahmad 1999; Gambling and Karim 1991).

1.4.1.1 Individuals

- must realize that they are accountable for all their actions before Allah; therefore, they should be honest and refrain from any prohibited or fraudulent activity,
- should never act intentionally in an unethical manner,
- shall use their talents and become active members of society,
- may strive for material wellbeing by legitimate means, but avoid a life of extravagance and prefer a modest lifestyle; the use of surpluses for social aims is meritorious.
- should be guided by the principle of benevolence; this principle should permeate the relationships between employer and employees (instead of an ever-present pressure to perform),
- ought to pay fair wages that are sufficiently high to motivate and sustain employees, but not too high to obstruct the earning of a profit,
- must refrain from all forms of exploitation of people who are in distress; instead, they should give relief and support,

- have to use correct weights and measures and must not conceal information, which are relevant for decisions of their customers or business partners,
- are expected not to manipulate markets (by cartels, hoarding/cornering, runs, etc.),
- should not give (legally non-binding) promises which they intend to break,
- are required to avoid pollution and other negative externalities which harm others,
- must not earn an income from the mere ownership of capital; this factor of production has to be combined with labour (entrepreneurial efforts) to generate a legitimate income,
- should aim to use exchange contracts which comply with particular criteria of justice for the allocation of risks and returns.
- should avoid over stating the benefit of a product, pressure sale and mislead sale.

1.4.1.2 Corporations and Institutions

- should accept a corporate social responsibility,
- are expected to develop a corporate code of ethics and to take concrete measures to make it effective (e.g. install an ethics review panel, appoint an ethics advocate, train staff, adjust the reward system, and perform social audits).

Some overarching ethical principles address a wider audience (including political actors) and have a systemic relevance (Beekun 1997; Abuznaid 2009):

- Islamic law recognizes private ownership of the means of production. Neither individual human skills nor natural resources should unnecessarily lie idle, and it is forbidden to waste or wantonly abuse resources.
- The Qur'an gives the poor and needy a claim to solidarity from the community. Muslims are required to pay *zakat*, which is a 2.5% levy on assets or a 5% or 10% levy on agricultural produce, which has to be spent for specific (social) purposes as prescribed in Shariah. This is an obligation for every person whose wealth (or income) exceeds a certain minimum threshold. The claims of the needy should be satisfied by the community or society, and only if this fails the state should step in and organize *zakat*.
- Since God has made the goods of this world available to all human beings, inequalities in the distribution of income and wealth must not become too great. If necessary, the state must intervene with corrective measures to fight poverty.
- Humans, as God's custodians of the earth, have the right only to use the creation. The ultimate owner is God. Humans must not inflict any damage on his creation, and they must consider the legitimate claims of future generations. This principle gives rise, among other things, to a collective ownership of non-renewable resources (natural resources, but also water) and, more recently recognized, a duty to protect the environment.
- Prices should be just, which means that their formation should take place on competitive markets. Monopolization and hoarding lead to an exploitation of other market participants and should be defeated. The state may take action to prevent anti-competitive behaviour and market manipulations.

- The state must provide a basic infrastructure (including a judicial system) and particular public goods, and governments should refrain from intervening in competitive markets. Fiscal policy should preserve an equilibrium between tax revenues and public expenditure so that the national budget balances overall (Alamad 2017b).

In addition to general ethical principles, Islamic law comprises more specific prohibitions, in particular with respect to financial transactions.

1.4.2 Restrictions in Financial Transactions

Based on the principles and foundation laid down by the Shariah, the general values to be observed by every Muslim business person include, the objectives and philosophies of Islamic financial institutions must be in line with the teachings of the Qur'an and Sunnah of the Prophet (pbuh). As well as eliminating interest (*riba*), is an important task, but IFIs, by default, must conform to all other Islamic business principles. All teachings imposed on Muslim individuals, as explained above, are also applicable to IFIs (Abuznaid 2009). Financial transactions must be based on contracts that are free from *gharar, maysir* and *riba* (Ayub 2007).

- *Gharar* means (excessive) uncertainty or ambiguity in a contract, which could lead to disputes about rights and obligations and the fulfilment of a contract, but it can also mean deceit. *Gharar* exists when, for example, in a sales contract with deferred payment the exact price or in a contract with deferred delivery the description of goods to be delivered are not specified. Another example is the sale of the fruits of a particular tree when the tree just starts to blossom; here it is uncertain whether it will be possible at all to deliver the sold object (Usmani 2002). To avoid *gharar*, it must be highly probable that the contract can be fulfilled by both parties and all relevant parameters of the transaction e.g. for a sales contract at least the price, the specification and the quantity of the goods, the terms of payment, and the date of delivery must be known. Since uncertainties cannot be eliminated completely, moderate *gharar* which is not deceit and known to and accepted by the contracting parties is tolerated. Otherwise, the existence of *gharar* invalidates a contract. It is an essential condition for the validity of a commutative contract i.e., a contract in which each contracting party gives and receives an equivalent counter value, e.g. in a contract of sale. Under these circumstances, consideration should be known with certainty. Uncertainty of a sale price or rent generally makes the contract invalid. If a commercial deal is done without mentioning any price, the majority of Muslim jurists consider this to be extreme *gharar*. However, some of the jurists hold that goods, which have a standard market price, may be sold without specifying the price, and the market price of such goods would be considered the sale price. Where, for instance, goods for daily use are bought from the neighbourhood store without agreeing on the price, and the account is settled at the end of the month, the contract would be valid as the standard market price would be used, such a sale contract called *Istijrar* (Alamad 2017b).

- *Maysir* means gambling: A person can win or lose something of value by mere chance. In games of chance, the gain of one party is the loss of the other party. The transfer of assets from the loser to the winner as the result of gambling is against the Islamic law and cannot be enforced in Shariah.
- *Riba* is understood by proponents of Islamic finance as interest-based loan, irrespective of the level of the interest rate or the purpose of the loan (production or consumption). From an economic perspective, the prohibition of *riba* is the most important and challenging guidance in the Qur'an.

1.4.3 Riba, Usury and Bank Interest

The Qur'an does not provide a definition of *riba*. There is a wide consensus that the term covers usurious loan practices, which were common in the Arab peninsular at the time of Prophet Muhammad (pbuh). But a new phenomenon became relevant in the Muslim world since the late nineteenth century CE, namely commercial banks and bank interest. The question to Islamic scholars then was whether bank interest falls under the prohibition of *riba* (Ayub 2007).

Generally speaking, the practice of *riba* was based on (1) loan contracts with (2) "excessively" high (explicit or implicit) rates of interest.[1] Some scholars argued that *riba* occurs only when both components loan plus excessive rate of interest occurs. If the rate of interest is not excessive, the loan contract would not be exploitative and would not fall under the prohibition of *riba*. Paying or receiving moderate (non-exploitative) rates of interest for bank loans or bank deposits would be permissible.

For the majority of Islamic scholars, the rate of interest in a loan transaction is less important. What counts in a loan contract is that the lender does not only have an unconditional claim to the full repayment of the loan amount, but also to an additional benefit (in form of interest or otherwise). It is this combination of claims, unconditional full repayment plus additional benefit, which is considered *riba* and hence is prohibited (Saleh 1986).

The background for this stricter interpretation is the view that money has no intrinsic value and a loan should be more an act of benevolence than a financing tool. A benevolent loan (*qard al-hasan*) should be given to a person in a distressed situation, and although the lender may have a claim for the repayment, he should not enforce it if that implies a hardship for the borrower (Usmani 2002). The borrower is morally obliged and accountable in the hereafter for the repayment of the loan once he is able to do so without hardship.

[1]Rates were excessive when the contracting parties knew in advance that the borrower would not be able to repay the loan plus the interest on maturity. Another variant was that the loan was initially interest-free, but the maturity so short that a person who needed the loan to survive after a misfortune was unable on repay on time. In this case, the maturity was extended but the outstanding amount doubled.

When a loan was not an act of benevolence, but given for the purpose of financing, the situation is different. This would be subject to the underlying Islamic finance principle(s), the creditor is morally not restrained to legally enforce his claim for the repayment in case of a delay by the debtor. However, the majority of Islamic scholars would maintain that no additional benefits must be claimed by the creditor. If so, the loan contract would involve *riba* and fall under the Qur'anic prohibition, with severe consequences for the creditor in the hereafter. Hence, interest-bearing bank loans or interest-bearing bank deposits, which can be seen as loans by the depositors to the bank, are not permissible.

1.5 Bank Financing Without Riba

If bank loans are permissible, but have to be free of interest in the broadest sense (free of any financial benefit for the creditor), then bank financing cannot be based on loans. The search for an alternative has resulted in two different solutions which were developed by two different groups of experts: Shariah scholars (jurists) on the one hand and Islamic economists on the other hand (Ayub 2007).

1.5.1 The Jurists' Approach

The jurists refer to a verse in the Qur'an that explicitly prohibits *riba* but allows trade. Trade at the time of Prophet Muhammad (pbuh) was a very sophisticated and profit-oriented business, comprising:

- commercial partnerships for risky and capital intensive long-distance trade, such as caravans to Syria, China and Yemen,
- the sale of goods to retail and business customers on a deferred payment basis with a mark-up over the spot price, and
- the pre-financing of the production of future trade objects especially in agriculture and crafts.

None of these activities required loan contracts for its financing. Instead, they were based on partnership contracts and different types of exchange contracts, which I will not discuss here in this chapter (see Chaps. 5–8).[2]

- In partnership contracts the parties either pool their financial resources, manage a project jointly and share profits or losses of the joint venture, or one party only provides the financial resources, the other party manages the project, and both share profits while only the financing party has to cover financial losses should they occur.

[2]The following is only a brief summary of the main characteristics of these contracts. More details are provided in subsequent chapters.

- Exchange contracts are either rent or sales contracts. One contracting party receives the right to use an object or gets the ownership of the object, while the other party pays the agreed rent or price. It is permissible that the exchange of the object and the payment take place at the same time (spot sale), or that the object is exchanged today for payment in the future (sale with deferred payment), or in special cases under particular conditions that money today is exchanged for objects in the future (forward or manufacturing sales).

In exchange contracts in which the payment precedes the delivery, the financing component is obvious. In deferred payment sales, the financing component is a mark-up on the spot price which is a legitimate trade profit for the seller and not prohibited *riba*. The buyer who did not have the money for a spot payment can use the purchased items to generate an income that allows him the payment of the higher deferred purchasing price. This income generation has been facilitated (financed) by the deferment of the payment. In a similar way, the financing component of a rental contract is that extra amount by which the aggregate value of the future rental payments exceeds the spot price of the rented object.

1.5.2 Substance and Form

It can hardly be denied that the economic or commercial substance of the financing component of an exchange contract (sales or rental/leasing contact) is equivalent to the interest in a conventional loan. It is, on the other hand, clear that the legal form of an exchange contract is different from a loan contract. However, the difference is not only in form as the parties of exchange contracts have rights and obligations which are related to the object of exchange. For example, the selling party does not only provide the financing through accepting a deferred payment. The seller is also responsible for the proper condition of the object and its agreed delivery terms (Saleh 1986).

This is by no means trivial if the selling party is a bank, which is a financial institution and not a trading company. If a bank agrees to a mark-up sale for the financing of objects which are requested by a customer, it typically does not have these objects in stock but has to purchase them first by itself. The bank must ensure to get the right objects at the right time before they can be sold and delivered to the customer on time. Risks are associated with these intermediary steps, which do not exist in a conventional setting where the bank provides only the financing by means of an interest-bearing loan, while all issues related to the required object fall exclusively into the realm of the customer.

Contracts which were developed for traders are not particularly well suited for financial institutions, and adjustments and adaptations have to be made to achieve a better fit. If a bank wants to avoid *riba* in its financing business, but views itself as a financial institution (like a conventional bank), then the general direction of its "contractual engineering" is predetermined. It is the shift of nonfinancial risks (i.e. risks emanating from the object of the "financing sale") from the bank to the customer.

1.5.3 The Economists' Approach

The risk avoidance by *riba*-free banks is in a sharp contrast to the position of those Islamic economists who were thinking of a fundamental reform of the financial system. For them a genuine Islamic system should be based on risk sharing between the financier and the financed entrepreneur (instead of a risk shifting from the financier to the entrepreneur). The appropriate legal form would be partnership contracts with profit and loss sharing (PLS) structures. The Islamic economists discussed the qualities of a PLS economy extensively, and they found that it would be more just and superior to the conventional interest-based system with respect to the efficiency of capital allocation, the distribution of income and wealth, and the macroeconomic stability (Saeed 1999; Usmani 2002).

Whatever the merits of these PLS models are, they were never a description of the realities in Muslim countries. While it is frequently argued that risk sharing is the main feature of an Islamic financial system, PLS techniques are rarely applied in the financing product structures of Islamic banks. The contradiction between these two statements can be resolved if the first statement is read as prescriptive and the second statement as descriptive. Risk sharing is the feature of an Islamic financial system, but such a system is not yet implemented. The *riba*-free financing techniques, which presently dominate the practice of Islamic banks are approved by Shariah scholars, but economists argue that they should be phased out and replaced by PLS modes of financing in the future. However, this future may be far ahead. It seems that not only those financial instruments which replicate risk-shifting features of conventional finance are persistent, but even more sophisticated risk-shifting instruments are added to the toolboxes of Islamic banks (Siddiqi 2004). The Islamic financing system, instruments and products are depicted in Figs. 1.4 and 1.5 respectively, and will be explained from an accounting perspective in subsequent chapters (see Chaps. 5–8).

1.6 Shariah Compliance and Shariah Governance

The achievement of a sound corporate governance is a major challenge even in well-developed markets, and one reason why they are well-developed is that in them this challenge has been met to a reasonable degree. Conversely, failure to recognise or to respond to this challenge may slow the development of emerging markets. Most Islamic financial institutions are located in emerging market countries. The banking supervisors of such countries have therefore a key role to play in enforcing good corporate governance in their jurisdictions (Lahsasna 2010). With this in mind, there are a number of reasons why Islamic banks are a special case amongst banks. These may be summarised as follows and each is explained further below:

(a) the need for Shariah compliance;
(b) accountability to the Almighty: ethics and social responsibility (in contrast to the neo-liberal approach);

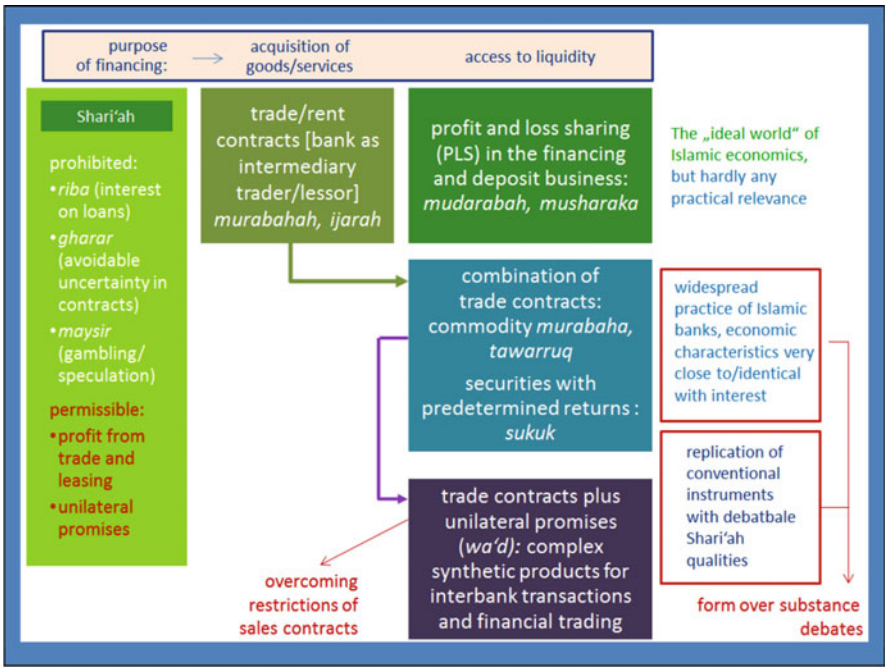


Fig. 1.4 *Riba*-free financing system

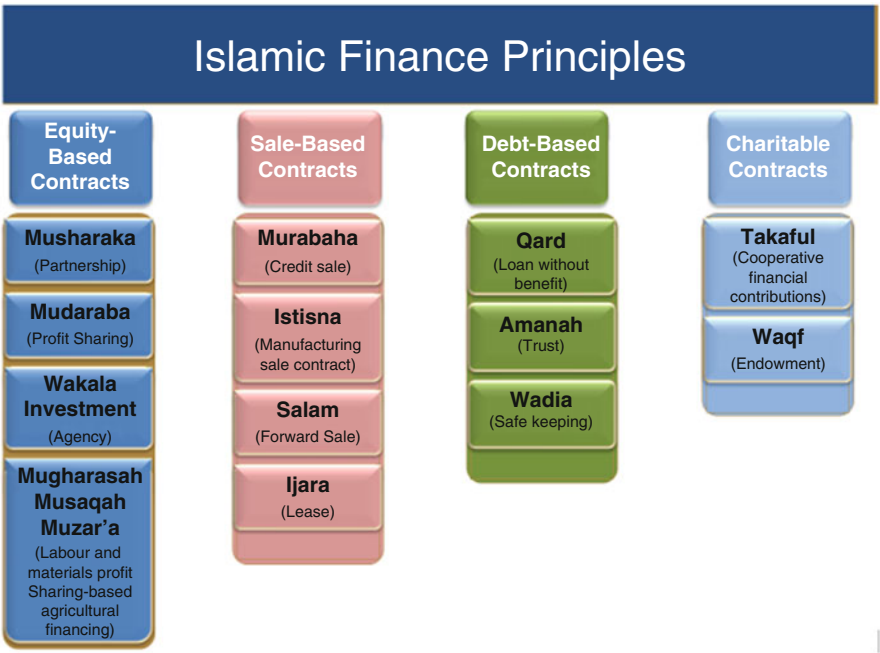


Fig. 1.5 Islamic financing techniques and instruments

(c) a class of stakeholders (Profit Sharing Investment Account Holders—IAH) not found in conventional banks;
(d) potential conflicts of interest between shareholders and 'unrestricted' IAH; issues of profit allocation, asset allocation and 'risk appetite';
(e) transparency in financial reporting, e.g. calculation of the *Mudarib* share, asset allocation and profit allocation; and
(f) emerging markets issues.

When Islamic banks were established in the 1970s, the founders of many institutions were successful businessmen who had used in their businesses the wide range of financial services provided by conventional banks. The aim of the founders of Islamic banks was to get functional equivalents of these services, which do not violate the Islamic law, in particular not the prohibition of *riba*. The development of such instruments required the juristic expertise of Shariah scholars. To bring this expertise into the newly established banks and to ensure that all products and processes comply with the requirements of the Islamic law, the founders established Shariah boards in their banks.

1.6.1 Shariah Boards of Islamic Financial Institutions

Shariah supervisory boards (SSB) or committees (SSC) comprise of three or more recognized and independent Shariah experts who usually are appointed by the general assembly of each Islamic bank. There were no formal degree programs in Islamic finance in the early years of Islamic banking, and recognition resulted from reputation that an individual scholar had built over the years within the scholarly and financial communities. As a result of the initial short supply, many scholars held board positions in many banks. Quite a number of prominent Shariah scholars still sit on 50 or more Shariah boards, in extreme cases even on more than 80 (Hasan 2012).

Two standard setting bodies of the Islamic finance industry, the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) and the Islamic Financial Services Board (IFSB), have dealt with issues of Shariah governance and made some recommendations regarding Shariah boards in their issued relevant governance standards, including the following:

- Shariah board members should not be employed by the same Islamic financial institution.
- There should not be prolonged periods of membership of individual scholars in the same Shariah board.
- The number of Shariah board memberships of an individual scholar should not be too large to have enough time for each Islamic financial institution.
- Shariah boards should comprise junior and senior members, where senior members could assume a mentorship for the junior members.
- There should be an evaluation of the performance of Shariah boards and of individual board members.
- The composition of the board should reflect a diversity of schools of law.

The reality is still far away from these recommendations (except the first one which is generally observed): Typically, Shariah boards comprise "big names" who hold large numbers of board positions for extended periods of time. Diversity is rather limited, and there are no indications that standard setting bodies seriously consider an explicit evaluation of the performance of boards and board members.

However, the importance of this monitoring role should not be underestimated. There are numerous ways in which an institution may fail to comply with Shariah in its operations without this being noted, unless the documentation of the contracts for individual transactions is examined. Yet SSB members may lack the auditing skills needed for such work, or the time to carry it out. In such cases, it is important that such work be carried out by qualified Shariah auditors in the Sharia compliance department. In this connection, the Audit Committee of the board of directors, may be expected to support the role of the SSB, since the responsibility for ex post compliance falls squarely on the shoulders of the Board of Directors. It needs to be recognised that failure to comply with the Shariah rules and requirements may expose an Islamic financial institution to being found guilty of misconduct and negligence, and become fully liable. This could undermine the solvency of the institution as well as reputational risk and loss of business.

1.6.2 Fatwas on Products and Shariah Reports

The role of Shariah boards is twofold: to approve the Shariah compliance of the products of the financial institution, especially of new products before they are rolled out to customers, and to supervise the overall Shariah compliance of the institution.

- For each new product, the Shariah board issues a *fatwa*. A *fatwa* is, in general, a legal opinion of a competent Shariah scholar (*mufti/mujtahid*), which removes uncertainties and settles unclear matters in a specific case by an interpretation of the Qur'an and Sunnah in the light of the principles and methods of Islamic jurisprudence. A *fatwa* is a response to a question posed to the scholar. It should reflect the specific needs of the asking person or institution. Being a legal opinion and not a juridical ruling issued by a court or judge, the *fatwa* is legally not binding for the addressee. If the board of directors of an Islamic bank asked the Shariah board for a *fatwa*, it would be at the discretion of the management to follow this opinion or not, unless the statute, which is usually the case for all Islamic banks, of the bank stipulates that the rulings of the Shariah board are binding for the board of directors. Conceptually, it would be reasonable to give the Shariah board the final authority in all Shariah related matters. This, however, is a problem in most jurisdictions where the corporate law does not allow a restriction of the power of the board of directors by another body. Therefore, the legal status of the Shariah board and the Shariah compliant activities are usually stated in the articles of association of the corporate in order to have a binding status, otherwise it is considered as an advisory body.

- For the regular business, the Shariah board shall examine the processes and procedures of the institution. Given that the board members are independent and can spend only a limited time for the monitoring, the work of the Shariah board can be supported by a Shariah compliance officer or department, who may be a full-time employee of the bank. He or she monitors processes and the implementation of recommendations of the Shariah board and reports to it regularly. Some larger banks have implemented an even more sophisticated system of an internal Shariah audit.

The Shariah board has the right and obligation to prepare an annual Shariah report which is usually integrated into the annual report of the bank. In this report, the Shariah board has to summarize its findings regarding the Shariah compliance of products and processes, and it could make a note if the board of directors did not follow its *fatwa* in a particular case. Shariah reports are often only a brief summarily statement.

1.6.3 National Shariah Board

Sometimes different Shariah boards came to different legal opinions on the same issue. Such a situation does not remove but create uncertainty and obstructs efforts to create a more integrated larger Islamic finance market. To avoid such problems, the regulators in some countries have established a national Shariah board. It is the final authorities in all matters of Islamic finance law, and fatwas of this body are generally binding. The legal opinions of the national Shariah board are adopted by the regulatory authority and recasted into secular directives and instructions (Hasan 2012; Lahsasna 2010).

Fatwas of the national Shariah board set limits for the scope of *fatwas* of the Shariah boards of individual banks. If a *fatwa* of the Shariah board of a bank allows certain products, which are prohibited by a *fatwa* of the national Shariah board, the *fatwa* of the latter overrules the *fatwa* of the former. However, if the *fatwa* of the bank is more restrictive than the *fatwa* of the national Shariah boards, the bank can apply its own *fatwa,* which falls within the range of permissible options.

An argument against national Shariah boards is that they may over regulate the market and curtail Shariah compliant financial innovations. This may indeed be the case, but it is not an inevitable consequence. The example of Malaysia shows that innovations can flourish in a system with a national Shariah board, because this board is open for innovative ideas and refrains from too detailed stipulations. This approach is also appealing to an increasing number of market players who call for more Shariah standardization in order to overcome the fragmentation of markets due to incompatible various Shariah positions.

1.7 Conclusion

As discussed in this chapter, Islam provides a comprehensive code and approach to life, and Islamic teachings reach beyond many views of worship and spirituality. In order to appreciate the Islamic concepts of banking and finance, it is essential to place them within the context of the beliefs and philosophy underlying Islam. Therefore, this chapter has provided the context for the study of accounting and financial accounting in Islamic finance and its financial institutions. The chapter addressed key issues that underpin the context of this book paving the way for the understanding of next chapter as the first ring in the chain. The key aspects that I have highlighted here cover the philosophy of Islamic economics and finance, the evolution and development of Islamic law and jurisprudence, Shariah code of conduct and Shariah guidance and governance. The logic of selecting these topics covered in this chapter will become clearer as I walk you through this book. Each chapter would provide a building block that would help you understand the concepts and challenges that this study is addressing.

It is not sufficient for IFIs to only implement Islamic finance principles to ensure that the Islamic banking system is fulfilling the Sharia requirements. Compliance with Shariah goes beyond that to ensuring that internal process of accounting and financial reporting is done in accordance with this framework. It should consider how international accounting standards and regulatory reporting that usually do not give specific regards to Islamic finance and operations of Islamic banks should be tailored accordingly to be fit for purpose. This is what exactly this book in the remaining chapters aiming to achieve. In order to do that I will be discussing the theory of money, its nature and functions from an Islamic and traditional perspectives in the next chapter. This would help you understand the subtle differences in the Islamic view regarding accounting and money.

Chapter 2
Money, Its Origins, Nature and the Time Value of Money

2.1 Introduction

Appreciating the Islamic concepts of banking and finance is essential to place them within the context of the beliefs and philosophy underlying Islam, as discussed in the previous chapter (Chap. 1). Chapter 1 addressed key issues that underpin the context of this book, which laydown the foundations for the key subjects covered in this study. This chapter, however, deals with a matter closely related to the subject of usury (which is strictly prohibited) in Islamic jurisprudence, and laydown another important foundation in relation to the study of the principles of Islamic accounting. It is the essence of the Shariah rules regarding all forms of exchange transactions of paper currency (fiat money) today. The key issue is what money is, how it is viewed and what is the Islamic view of money? This chapter is divided into various sections whereas I will discuss the concept of money, what money is and its functions, pre-metallic money, metallic money and coinage, paper money, digital currency and time value of money. As accounting is all about money and assets, it is important to understand the theory of money in both its traditional and Islamic economics contexts.

Perhaps the most common claim with regard to the importance of money in our everyday life is the morally neutral if comically exaggerated claim that 'money makes the world go round'. Equally exaggerated but showing a deeper insight is the biblical warning that 'the love of money is the root of all evil'. Within that context Quran also says: 'Beautified for people is the love of that which they desire of . . ., heaped-up sums of gold and silver, fine branded horses, and cattle and tilled land. That is the enjoyment of worldly life, but God has with Him the best return', (Quran 3:14). Neatly transformed by George Bernard Shaw into the fear that it is rather the lack of money which is the root of all evil (Davies 2002). However, whether it is the love or conversely the lack of money which is potentially sinful. The purpose of the statement in either case is to underline the overwhelming personal and moral significance of money to society in a way that gives a broader and deeper insight into its importance than simply stressing its basic economic aspects, as when we say that 'money makes

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_2

the world go round'. Consequently, whether we are speaking of money in simple, so called primitive communities or in much more advanced, complex and sophisticated societies, it is not enough merely to examine the narrow economic aspects of money in order to grasp its true meaning (Thompson 1956).

2.2 The Concept of Money in Society

To analyse the significance of money it must be broadly studied in the context of the particular society concerned. It is a matter for the heart as well as for the head: feelings are reasons, too. Money has always been associated in varying degrees of closeness with religion, partly interpreted in modern times as the psychology of habits and attitudes, hopes, fears and expectations. Thus, the taboos which circumscribe spending in primitive societies are basically not unlike the stock market bears, which similarly reduce expenditures through changing subjective assessments of values and incomes, so that the true interpretation of what money means to people requires the sympathetic understanding of the less obvious motivations as much as, if not more than, the narrow abstract calculations of the computer. To concentrate attention narrowly on 'the pound in your pocket' is to devalue the all-pervading significance of money (Thorne 1962).

If money were merely a tangible technical device so that its supply could be closely defined and clearly delimited, then the problem of how to master and control it would easily be amenable to man's highly developed technical ingenuity. In the same way, if inflation had simply a single cause, government and money supply came simply from the same single source, then mechanistic controls might well work. However, although government is powerful on both sides of the equation it is only one among many complex factors. Among these neglected factors, according to Lindgren, in a rare book on the psychology of money, 'the psychological factor that continually eludes the analysts and planners is the mood of the public' (1980: 54). Therefore, let me explain below, briefly, the various forms that initiated the concept of money and I would start with bartering.

2.2.1 Bartering

The history of barter is as old, indeed in some respects very much older, than the recorded history of man himself. Before metal coins were invented, ways to pay for things took many forms; hundreds of objects were used as money. In ancient societies of the Mediterranean and Near East they included wheat and barley and cattle. The direct exchange of services and resources for mutual advantage is intrinsic to the symbiotic relationships between plants, insects and animals, so that it should not be surprising that barter in some form or other is as old as man himself. What at first sight is perhaps more surprising is that such a primeval form of direct exchange should persist right up to the present day and still show itself vigorously, if

exceptionally, in so many guises particularly in large-scale international deals between the eastern bloc and the West.

However, barter is crudely robust and adaptable, characteristics which help to explain both its longevity and its ubiquity. Therefore, when the inherent advantages of barter in certain circumstances are carefully considered, then its coexistence with more advanced and convenient forms of exchange is more easily appreciated. Foremost among these advantages is the concrete reality of such exchanges: no one parts with value in return for mere paper or token promises, but rather only in due return for worthwhile goods or services. In an inflationary age where international indexing and the legal enforcement of contracts are either in their infancy or of very shaky construction, this primary advantage of barter may more than compensate for its cumbersome awkwardness. Throughout by far the greater part of man's development, barter necessarily constituted the sole means of exchanging goods and services. It follows from this that the historical development of money and finance from relatively ancient times onwards overlaps only to a small degree (Tobin 1978).

As a result, according to Davies (2002) what have we learned about barter's complementary coexistence with money is more than we know about barter in those long, dark, moneyless ages of prehistory, and thus we tend to derive our knowledge of barter from the remaining shrinking moneyless communities of more modern times. Davies further argues that from these latter backward communities rather than from the mainstream of human progress that most accounts of barter have been portrayed in various writings to provide the basic examples typically occurring in modern textbooks on money. Little wonder then that these have tended not only to overstress the disadvantages of barter but have also tended to base the rise of money on the misleadingly narrow and mistaken view of the alleged disadvantages of barter to the exclusion of other factors. Most of which were of very much greater importance than the alleged shortcomings of barter. Barter has, undeservedly, been given a bad name in conventional economic writing, and its alleged crudities have been much exaggerated (Davies 2002; Toniolo 1988).

As the various systems of barter naturally grew to accommodate these increasing demands the complexity of trade increased too, until the demands of trade exceeded the scope of barter, however improved or complex. One of the key important improvements over the early forms of barter was first the tendency to select one or two particular items in preference to others so that the preferred barter items became partly accepted because of their qualities in acting as media of exchange. Even though, they still could be used for their primary purposes of directly satisfying the needs of the traders concerned. Commodities were chosen as preferred barter items for a number of reasons. Some commodities were chosen because they were easily stored, some because they were viewed to have high value densities and were easily portable, some because they were more durable (or less perishable). The more of these qualities and characteristics the preferred item exhibited, the higher the degree of preference in exchange. Perhaps the most valuable step forward in the barter system was made when established markets were set up at conveniently accessible locations (Toynbee 1960; Davies 2002).

Very often such markets had been established long before the advent of money but were strengthened and confirmed as money came into greater use. Money which in many cases had long come into existence for reasons other than trading. Throughout its history, money was seen to offer considerable advantages over barter and very gradually took over a larger and larger role while the use of barter correspondingly diminished. Barter, however, re-emerged in special circumstances, usually when the money system, which was less robust than barter, broke down. Such circumstances continue to show themselves from time to time and persist to this day. In some few instances communities appear to have gone straight from barter to modern money. However, in most instances the logical sequence (barter, barter plus primitive money, primitive money, primitive plus modern money, then modern money almost exclusively) has also been the actual path followed, but with occasional reversions to previous systems (Tooke and Newmarch 1857).

Among other disadvantages of barter are the costs of storing value when these are all of necessity concrete objects rather than, for example, an abstract bank deposit which can be increased relatively costlessly and can whenever required be changed back into any marketable object. Besides, a conventional bank deposit earns interest, whereas, to reverse Aristotle's famous attack on usury, not to mention the religious prohibition in Islam, most barter is barren. Services, by their nature cannot be stored, so that bartering for future services, necessarily involving an agreement to pay specific commodities or other specific services in exchange. This weakens even the supposed normal superiority of current barter, namely its ability to enable direct and exactly measurable comparisons to be made between the items being exchanged (Trevelyan 1938).

Having thus differentiated between modern barter where the participants are fully conversant with advanced monetary systems and early barter where such knowledge was either rudimentary or non-existent, we may now turn to examine a few of the more salient examples of modern barter and to explain the reasons for this surprising regression. The many recurrent and the few persistent examples of barter in modern communities are most commonly, though not exclusively, associated with monetary crises, especially runaway inflation, which at its most socially devastating climax destroys the existing monetary system completely. Thus, in the classic and well documented case of the German inflation of 1923 the 'butter' standard emerged as a more reliable common measure of value than the Mark. Towards the end of the Second World War and immediately after, much of retail trade in continental Europe was based on cigarettes, virtually a Goldflake or a Lucky Strike standard, which also formed a welcome addition to the real pay of the invading soldiers (Trued and Mikesell 1955).

2.3 What Is Money?

Perhaps the simplest, most straightforward and, for historical purposes certainly, the most useful definition of primitive money is that given by P. Grierson, Professor of Numismatics at Cambridge, 'all money that is not coin or, like modern paper money, a derivative of coin' (1977: 14). Even this definition however fails to allow for the

ancient rather sophisticated banking systems that preceded the earliest coins by a thousand years or more. Nevertheless, with that single exception, it serves well for distinguishing in a broad sense between primitive and more advanced money, whether ancient or modern, and in its clarity and simplicity is perhaps preferable to the almost equally broad but rather more involved definition suggested by Einzig, as 'A unit or object conforming to a reasonable degree to some standard of uniformity, which is employed for reckoning or for making a large proportion of the payments customary in the community concerned, and which is accepted in payment largely with the intention of employing it for making payments' (1966: 317).

Knapp's *State Theory of Money* considerably influenced Keynes, through whose efforts the work was translated into English. Knapp was nothing if not forthright: 'Money is a creature of law . . . the numismatist usually knows nothing of currency, for he has only to deal with its dead body' (1924: 1). This view of the role of the state as the sole creator and guarantor of money, although useful as a corrective to the metallistic theories current at the end of the nineteenth century, Nevertheless, carries the state theory of money to an absurd extreme. The main point, however, is simply this, that right from the inception of money, from ancient down to modern times, the state has a powerful, though not omnipotent, role to play in the development of money. Yet neither ancient money nor modern money, even the Bank of England, is a mere creature of the state (Unwin 1927; Davies 2002). This does not mean that the state did not aim to control it later on as I will discuss in the coming sections but let us first see what the functions of money are (Davies 2002). I divided such functions into two categories specific and general functions.

Specific functions of money (mostly micro-economic)

1. Unit of account (abstract).
2. Common measure of value (abstract).
3. Medium of exchange (concrete).
4. Means of payment (concrete).
5. Standard for deferred payments (abstract).
6. Store of value (concrete).

General functions of money (mostly macro-economic and abstract)

7. Liquid asset.
8. Framework of the market allocative system (prices).
9. A causative factor in the economy.
10. Controller of the economy.

What is now the prime or main function in a particular community or country may not have been the first or original function in time. While what may well have been a secondary or derived function in one place may have been in some other regions the original which itself gave rise to a related secondary function. Here again there is a tendency among certain economists to compare what appears in today's conditions to be the logical order with the actual complex chronological development of money over its long and convoluted history. The logical listing of functions above therefore implies no priority in either time or importance, for those which may be both first and foremost reflect only their particular time and place (Usher 1962).

2.4 Pre-metallic Money

If economics, defined briefly, is the *logic of limited resource usage*, money is the main method by which that logic is put to work. In common-sense terms, therefore, economics is very largely concerned with how to make the most of one's money, since the allocation of resources and changes in the valuation of assets necessarily involve accountancy and payment systems based on money, although the degree to which such allocations are left to the freedom of the market, and therefore the demands which are made upon the efficiency of the monetary system, will vary from place to place and age to age. It is important, however, to realize that the close relationship between the development of money and its efficient use in the allocation of resources is complex and convoluted. In particular; the logical and chronological developments are not exactly parallel. Thus, as has already been noted, one would logically expect all pre-metallic moneys to be associated exclusively with primitive communities, and similarly all metallic money to be associated exclusively with more advanced societies. But this is far from being the case, and the logical order differs significantly from the chronological one (Usher 1966; Veblen 1899).

2.4.1 Cowrie

Of the many hundreds of objects that have been used as primitive moneys we begin with the cowrie because of all forms of money, including even the precious metals, the cowrie was current over a far greater space and for a far greater length of time than any other. The cowrie is the ovoid shell of a mollusc widely spread over the shallower regions of the Indian and Pacific Oceans. It comes in various types, colours and sizes, from about the size of the end joint of the little finger up to about the size of a fist. The most prolific single source was the Maldive Islands when for hundreds of years whole shiploads were distributed around the shores of Oceania, Africa, the Middle and Far East, their values rising as they became scarcer farther from their point of origin. The cowries are durable, easily cleaned and counted, and defy imitation or counterfeiting. For many people over large parts of the world, at one time or other they have appeared as an ideal form of money. Modern moneys found the cowrie a formidable rival, especially for items of small value (Vilar 1976). Across the other side of Central Africa, when cowries were first introduced into Uganda towards the end of the eighteenth century, two cowries in the most remote regions were known to have been sufficient to purchase a woman; by 1860 it required 1000 cowries for such a purchase. As trade grew and cowries became more plentiful they naturally depreciated further, but, were still officially accepted for payment of taxes until the beginning of the twentieth century. It was only with the penetration of the country by the Uganda railway that coins gradually took over from cowries, and only then for medium-and large-sized transactions. By the 1920s literally thousands of tons of cowries had been brought into Africa, not only from the Maldives but from other areas as they became

progressively even more devalued elsewhere, and in so doing accelerated the depreciation of the cowrie in the internal regions of Africa and eventually its death (Johnson 1970).

2.4.2 Fijian

The peculiar stone currency of Yap, a cluster of ten small islands in the Caroline group of the central Pacific, was still being used as money as recently as the mid-1960s. The stones known as 'fei' were quarried from Palau, some 260 miles away, or from the even more distant Guam, and were shaped into discs varying from saucer-sized to veritable millstones, the larger specimens having holes in the centre through which poles could be pushed to help transport them (Wake 1997). Despite centuries of at first sporadic and later more permanent trade contracts with the Portuguese, Spanish, German, British, Japanese and Americans, the stone currency retained and even increased its value, particularly as a store of wealth. The completed triumph of coinage over indigenous primitive moneys in the islands of the Pacific and Indian Oceans may be illustrated by noting that the Royal Mint at Llantrisant produced in the financial year 1981/1982 coins for 57 countries overseas, including the Maldive Islands (the home of the cowrie), Fiji, Tonga, Tuvalu, Kiribati, Papua and the Seychelles; though not Yap, whose dollars were minted in USA (Royal Mint, Annual Report 1982, 11). The Royal Mint produced coins or blanks for 61 countries in 2000, for far more countries than any other mint (Weale 2000).

2.4.3 Wampum: The Favourite American-Indian Money

One of the long-lasting difficulties of the early colonists of North America was how to establish a generally acceptable monetary system. The chronic shortage of coin caused them to jump from one expedient to another. Thus in 1715 the authorities in North Carolina declared that as many as 17 commodities including maize and wheat were legal tender. Strangely enough, there already appeared to be a much commoner and more generally acceptable currency when it came to dealing directly with the indigenous communities, namely, strings of (mainly) white beads. In course of time these beads were also generally accepted among the colonists themselves (Grierson 1977). 'Peag' is the Indian word for a string of beads and 'wampum' meant 'white', the most common colour of their money, hence the full title of their famous currency 'wampumpeag' is usually abbreviated to 'wampum'. The earliest account of this widespread Indian currency was given by Jacques Cartier in 1535, who noted an unusual additional function, its usefulness in stopping nose-bleeding, a curative property which his exploratory party tested and confirmed. Wampum was made out of the shells of the clam (Venus Mercenaria) and other similar bivalves, which were most plentiful in the estuarine rivers of the north-east of America and Canada.

Naturally, wampum was most commonly used in what are now the coastal states from New Brunswick and Nova Scotia in the north to Florida and Louisiana in the south; but wampum spread inland also and was used by certain tribes right across the continent. Thereafter, although retaining its ornamental attributes, particularly for belts, bracelets and necklaces, wampum generally faded away for currency purposes, and modern coinage almost completely replaced it even for small change by the last quarter of the nineteenth century (Grierson 1977).

2.4.4 Cattle: Man's First Working-Capital Asset

Just as the cowrie played a major part in primitive money from the point of view especially of being a medium of exchange, so cattle have occupied a central role in the long evolution of money as units of account. Cattle, a vague term variously meaning cows, buffalo, goats, sheep and camels, and usually but not always excluding horses, historically precede the use of grain as money for the simple reason that the taming of animals preceded agriculture. Despite their age-long use as money, some authorities on primitive money would contend that cattle cannot be properly considered as money because, being such a 'heavy' or expensive unit of account and standard of value, they were not very suited to performing the other more mobile functions of being a good means of payment and medium of exchange. This apparently demanded something much smaller than, say, a cow (Einzig 1966; Davies 2002). However, if the 'pound' sterling was clearly accepted as money for hundreds of years during which it had no physical existence and despite being a 'heavy' currency, cattle, which at least do have a very substantial physical presence, may with even greater justifiability be called money, provided only that they are of course used for monetary purposes, as they indubitably were, with sheep, goats and hides being used, among other objects, as subsidiary 'coinage' where emphasis was required on the mobile monetary functions. Cattle used as money were of course counted by head so that, for monetary purposes at least, quantity has generally though not invariably been more important than quality (Johnson 1970).

2.5 Pre-coinage Metallic Money

To primitive man emerging from the Stone Age, any metal was precious: the distinction between base and precious metals became of significance only after his skill as a metallurgist had improved and supplies of various metals had increased sufficiently to reflect their relative abundance or scarcity. Thus copper, bronze, gold, silver and electrum were known and used before iron, while aluminium, the most common metal in the earth's crust, became available for use only in the nineteenth century. The eagerness with which metals were accepted by late Stone-Age man and their growing indispensability once he had become accustomed to them together form

the key explanation as to their ready transformation into use as money (Davies 2002). Indeed, the word for 'silver' and 'money' has remained the same from prehistoric to modern times in a number of languages, e.g. French 'argent' and Welsh 'arian'. The metals therefore formed a strong and wide bridge from primitive to modern or coined money. The Chinese at the end of the Stone Age began for instance to manufacture both bronze and copper 'cowries'; and these dumpy imitations, which must have represented very high values at least when they were first introduced, are considered by some numismatists to be among the earliest examples of quasi-coinage, although this depends on how strictly one defines the term (Jevons 1875/1910).

The transition from specific usage as tools to symbolic and more general usage as media of exchange and units of account may also be seen in a range of metallic objects made of copper, bronze and iron, such as axes, spears, knives, swords, hoes and spades. Swords and spears were obviously treasured possessions, replicas of which could conveniently be reduced in size as they lost their purpose and became used as money. As well as representational or symbolic money, metals have long been used more simply and directly as money, sometimes just as unmarked lumps of various shapes and sizes but more often in the form of rods, wire coils and rings, anklets, bracelets and necklaces, that is in forms which were intended specially to facilitate their acceptance as money (Grierson 1977).

The normal process of monetary development was of course just the reverse, being a series of occasionally interrupted improvements, which cumulatively transform primitive communities through increasing recourse to metals for all sorts of uses including money, into more advanced economies, diffusing higher standards of living and more sophisticated monetary and trading systems over wider and wider areas and involving vastly greater populations. Money and civilization usually marched onward together, and, occasionally, declined together. Once it had become available, the increased preference for metallic money is easily appreciated, for as Jevons has convincingly demonstrated, it possessed, in the pre-electronic era, to a higher degree than any other material, the essential qualities of a good money, namely, cognizability, utility, portability, divisibility, indestructibility, stability of value, and homogeneity (Jevons 1910: 31).

Although Jevons arranged these in a different order of priority, we have already seen that what may be a correctly interpreted order for one society may be quite misleading in another. Certainly, with regard to the development of coinage, cognizability would be placed among the first ranks rather than in the last position to which Jevons relegated it. The pace of financial bargaining was enormously speeded up when recognized pieces of metal could be simply counted than when metals had to be weighed, as was the case in all pre-coinage days in all primitive societies and even for long periods in the earlier stages of civilized communities (Oates 1979).

It was from this lost Eden that money and banking, as well as writing and our duodecimal methods of counting time, space—and money—originated. The earliest known texts are lists of livestock and agricultural equipment. These come from the city of Uruk ca.3100 BC. Further to emphasize its mundane, economic character the same authority adds that 'the invention of writing represented at first merely a technical advance in economic administration' (Oates 1979: 15–25). Literally

hundreds of thousands of cuneiform blocks have been unearthed by archaeologists in the various city sites along the Tigris and Euphrates, many of which were deposit receipts and monetary contracts, confirming the existence of simple banking operations as everyday affairs, common and widespread throughout Babylonia. The Code of Hammurabi, law-giver of Babylon, who ruled from about 1792 to 1750 BC, gives us categorical evidence, available for our inspection in the shape of inscriptions on a block of solid diorite standing over 7 ft high now in the Paris Louvre, showing that by this period 'Bank operations by temples and great landowners had become so numerous and so important' that it was thought 'necessary to lay down standard rules of procedure' (Orsingher 1964).

In contrast to the development of coinage in and around the Mediterranean where the precious metals held the most important role, China concentrated almost exclusively on base metals for coinage, with important consequences for the differential development of money in the eastern and western worlds. In China, too, the state played a dominant role in coinage, and although there were hundreds of mints, the state insisted on central control and uniformity of standards. A further consequence of the base-metal composition was the ease with which such coins could be imitated and counterfeited. The raw material costs were low, the method of manufacture was simple and the superficial inscriptions easy to apply (Lindgren 1980).

As a result, imitation was endemic particularly at the periphery of the authorities' power. Because coins were confined to base metals the precious metals generally had to be used for all large purchases and had to be weighed in the primitive fashion even in modern times rather than counted, as with coins. Consequently, although China was easily the first to introduce 'coins', the possibilities which they offered were not as fully exploited as in the western world, where, once invented, their development went ahead much more quickly. The question of when coins were 'invented' depends very largely on one's definition of a coin, and one must concede that a definition which might suit the numismatist, who might legitimately be rather more concerned with technical considerations than the economist, might not quite suit the latter who is, or should be, much more concerned with function than with form or technique (Weale 2000).

The difference between Chinese and western coinage may be described by saying that, as acknowledged in many other aspects of civilization, China as a civilization had a long lead in pioneering coinage. However, this lead was diminished by the introduction of a different type of coinage that was invented elsewhere, using more superior techniques and precious metals, which were widely accepted and much better for most monetary functions (Davies 2002). Since the discovery, by the Portuguese, of the sea route to China round the Cape of Good Hope the typical, small, mainly base-metal coins of China have been known as *cash*, which is an extension geographically and linguistically of the Tamil word for such money. This cash was virtually the same as that circulating in ancient China. The distinctively great difference in monetary values between the large gold coins favoured in the rest of the world for larger payments and the small stringed 'cash' coin, typically consisting of a thousand coins, may be measured by the average ratio between them of a thousand to one. Therefore, it is argued that even though China can

boast a 'coinage' of unbroken continuity going back almost 3000 years, this longevity rested on a rigid conservatism. This conservatism confined coins to act only as a minor change of the economy, a position similar to that served by coins in our own society today where precious metal coins (gold and silver), for currency purposes, have vanished (Vilar 1976; Davies 2002).

2.6 Coinage

The gradual development of money was influenced by various traditions and features of early societies, such as blood money (compensation paid for killing a man), ceremonies, feasts or a bride dowry for marrying a woman. Various objects made from gold and silver were used as gifts and sacrifices to gods and religious figures in old traditional religious rituals. Gold and silver items were also used to pay tribute to kings in Babylon and Pharaohs in Egypt. Bank accounts are a key feature of our money system today. Money held in financial institutions and bank accounts form an important feature of today's financial system, their origin and the origin of record keeping arose from the need to keep accounts of the grain and other commodities deposited in royal palaces and temples. Historical evidence of clay tablets from Babylon have been found recording some of these financial accounts before 3000 BC, well over a thousand years before objects like primitive coins began to be used (Godard 2007).

Historical discoveries of ancient civilizations, and most scholarly anthropological and archaeological studies of early human societies, emphasise these social, religious and political origins of money. Other scholars, however, have concluded that money was invented to help trade. One of these scholars was Adam Smith, the Scottish philosopher who visited Voltaire and is often thought of as the father of modern economics. In his book *The Wealth of Nations*, published in 1776, Smith notes that human nature has "a propensity to truck, barter and exchange" which is "to be found in no other race of animals". The desire to trade and exchange different objects is part of human nature. It goes with the "division of labour" as different people specialise in different skills, jobs and careers. According to this view, money came into existence to meet the need for a means of exchange more efficient than barter (Davies 2002; Tooke and Newmarch 1857).

One might add also that the rapid development, if not quite the original invention, of coinage of a modern type appears to have been an essential, if possibly almost accidental, catalyst in the astonishing development of Greek civilization. Both *economics* and *numismatics*, linguistically and more generally speaking, come from the Greek, originally meaning *household management* and *custom* or *currency* respectively, though both these terms naturally had rather different connotations then than now (Usher 1966).

Does the introduction of coinage mark a watershed in human progress, or is it simply a minor technical improvement in political accountancy and in methods of exchange? Is the invention of money not only accidental but also incidental, not only

to the development of Greek civilization in particular but also to other civilizations? What were the causes of this invention, or in other words what were the origins of coinage? In particular it is important to realize that current debates among historians regarding the degree to which non-economic factors, mainly political, as opposed to economic factors, mainly trade, were responsible for the introduction of *coinage* are precisely the same kind of debates which arose in the past and still arise as to the origins of primitive *money*. Indeed, in the form 'how is money created today' this perennial argument still proceeds. It is in the nature of money to give rise to these polarized attitudes, and it is this that gives an added dimension to the intrinsically interesting history of the origins of coinage (Veblen 1899).

Turning now to the question as to how, when and where non-Chinese coinage was first 'invented', involving many intermediate stages though the final stages took less time than had previously been thought. Whereas the production of roughly similar metal ingots, so long as these gave no authentic indication of their weight or purity, can be definitely excluded, yet, when their weight and purity became authenticated to such a degree that they were accepted fairly generally without having of necessity to be weighed, then we may take this as being the first step towards coinage—but still a long way from the final product. Such a preliminary stage was reached in Cappadocia, where the state guarantee, probably both of the weight and purity of her silver ingots, helped their acceptance as money; a position reached as early as between about 2250 and 2150 BC. As the rather cumbersome ingots gradually became conveniently smaller, they were fashioned into a number of different forms of more standardized monetary objects, such as bars, which in their turn were reduced to rods, spits and elongated nails (Trued and Mikesell 1955; Davies 2002).

However, such metal quasi-coins gradually became more plentiful in Greece, including the Greek islands and the eastern Mediterranean, during the first half of the first millennium BC, during which the final stages in the inventive process took place quite rapidly. In retrospect we can see that this invention meant that a new monetary era had definitely begun, of a form and nature that by today has penetrated virtually the whole world, and even ousted, in the latter part of the nineteenth century, its ancient Chinese rival. According to Greek legend the rich deposits of the Pactolus river near Sardis, the Lydian capital, were the result of Midas' bathing in its torrents to wash away his dangerously embarrassing golden touch which had even turned his food into gold. This Lydian metal was called 'electrum' because of its amber-like appearance (it was the electro-magnetic attraction of amber that was the common test for distinguishing precious amber from worthless beads). As the Lydians' metallurgical skill improved, they learned how to separate the gold from the silver and so from both separate and mixed ore-sources, began issuing separate gold and silver coins. Croesus in the mid-sixth century BC is thus credited with the first bimetallic coinage, the manufacture of which began thereafter to be still further improved (Tooke and Newmarch 1857).

At the beginning of the seventh century BC it would be stretching the imagination to call the early Lydian dumps of electrum 'coins': well before the century closed they can be clearly recognized as coins. At first the bean-shaped dumps (possibly reminiscent of cowries), were heavy, cumbersome, irregular in size and unstamped.

They were then punch-marked on one side and rather lightly inscribed on the other (Tooke and Newmarch 1857). Such inscriptions were at first hardly more than scratches, and probably meant more as a guarantee of purity rather than of weight, although as they became more regular in form and weight the official authentication was taken to guarantee both purity and weight. All these stages were quickly carried through until, sometime in the second half of the seventh century, they had undoubtedly become coins, rounded, stamped with fairly deep indentations on both sides, one of which would portray the lion's head, symbol of the ruling Mermnad dynasty of Lydia. It was this rapid series of improvements in the quality of coinage that enables us to credit Lydia, and shortly thereafter Ionia, as being the true first inventors of coins, numismatically speaking; even if from the wider, economic point of view, where greater emphasis must be given to function rather than to form, the Chinese quasi-coins have a longer history. In quality, range of functions and influence over the rest of the world, however, the Lydian–Greek coinage has undoubted priority (Toniolo 1988).

The whole series of changes, from unstamped dumps, dumps punched on one side only, and so on to proper double-struck coins with the lion head device, badge of the royal house of Lydia, were found together in this important hoard, which included not only some 92 electrum coins but also a vast quantity of jewellery and precious metal statuettes, some 3000 items in all. Among the many results derived from this crucial find and corroborated by others are that the first true coin date from around 640 to 630 BC. Thus, the literary tradition derived from Herodotus and Aristotle, which gave the old conventional date of 687 BC for the earliest Lydian semi-coins, is nearer the mark than was previously supposed (Weale 2000; Davies 2002).

Since the time of this mainly Greek invention the financial history of the world has undergone a series of revolutionary changes around the central, relatively unchanging core of coinage; for subsequently, to most people most of the time, money has simply meant coins. In the western world for 2000 years since coinage was invented, the relationship between bullion and coinage has been the foundation of private and public finance. Until recent times coins have continuously been the main, though never the only, monetary medium; and although there have been units of account for which no coins existed, these units of account always stood in a known and definite relationship to the existing coins. Money has always meant more than simply coins; but it was coins that thereafter in the main constituted money and also provided a simple and therefore universally understood and accepted base and reference point for all other financial accounting devices and exchanging media (Toniolo 1988).

As this concept of money has developed over time, the Persians and other regions to the east of lonia developed a consistent preference for gold, which was influenced by the Lydians who always favoured it, where sliver second to gold. This bimetallic influence of Croesus, with gold being the most favoured money, continued in the Persian empire. As a result, the minting of gold was viewed as the guarded sole right of the Persian emperor and this minting division and its administrative duties gradually developed over time. Sliver coinage, however, used to be delegated from time to time to other rulers who serve under the emperor as it was seen to be a subsidiary to gold. The world first intermixing of eastern and western cultures is

believed to be during the period from the middle of the sixth century BC to the death of Alexander in 323 BC. This intermixing initiated a process inescapably involving fundamental changes in the nature and extent of money and banking (Davies 2002; Usher 1966; Veblen 1899).

A mixture of changing factors has influenced the preference of which metal to use for this new political and economic instrument. The most important of those factors was the availability of the raw materials. The scarcity of raw materials and availability of labour to mine, process and transport such raw materials e.g. ores were not readily achievable by only increasing metallurgical skills. The monetary role of the precious metals made them keenly coveted long before coins were invented and circulated. This elemental desirability of precious metals was substantially increased when the minting of coins and their enforced distribution introduced a new dimension to the economic, political and military rivalry of that warlike age as the political significance of coinage emerged (Davies 2002; Trued and Mikesell 1955).

Conquest, taxes, tribute, offerings to the temples and to the gods, gift exchange and finally trade; all these were methods of gaining precious metals in amounts sufficient to establish and maintain mints. As with the origins of money itself the economic cause of the spread in the use of coinage was therefore only one, and at first probably only a relatively minor one, of the many causes of the rise of rival coinage systems and of the spread of coinage over the civilized world. In course of time the influence of trade as a factor leading to the flow of specie and coin grew to be much more significant, even if some of the more extreme 'primitivist' historians still like to denigrate the economic factors in the rise and spread of coinage (Davies 2002).

After 600 BC, gold and silver coins spread through the city states of Greece, stamped with the emblems of their cities. As Athens grew in power and wealth, its beautiful coins of silver from the mines of Laurion became widely used. They were called "owls of Minerva" because they pictured an owl on one side. Minerva was the Roman name for the Greek goddess Athene. A myth tells of Athene's dramatic birth in full armour from the head of her father, Zeus. She became the guardian goddess of Athens. Because there were many owls there, the owl became her symbol and the emblem of Athens itself. In Rome coins were minted in the temple of a different goddess, Juno Moneta the origin of our words "money" and "monnaie" (Godard 2007).

Throughout history, people who have had most power have almost been rich. At the height of its empire in the fifth century BC, Athens forced all its allies to use owl of-Minerva coins; and all Athenian citizens had to hand over foreign coins to be recycled into owls of Minerva. This was profitable for Athens. Anyone who creates new money makes a profit from the difference between its value and the cost of producing it, unless they give it away. That is because people must either provide goods or services, such as their work in order to get it, or pay interest for borrowing it. That applies to countries, as to people. Any country whose money is used by others makes a profit, as the USA does today from other countries having to use the US dollar as the main international currency. That is one feature of today's international economy that many people think is unfair (Davies 2002).

The Emperor Charlemagne (742–814) minted coins of silver dug from mines in Germany by slaves who were worked to death. These coins were modelled on the old

Roman "denarius". In France "denier" coins were used until the French Revolution. In Britain pounds, shillings and pence were used until the 1970s; the shorthand for them was £sd; and the "d" still stood for denarius. Over the centuries the obligation to provide goods and services was gradually replaced by money. Subjects should pay taxes to kings and rulers, people should pay rents to their landlords, and people should get wages for working. In general, the importance of money in almost all aspects of life has continued to grow right up to the present time (Trued and Mikesell 1955). The creation of money was manifested throughout history in various ways, rulers have minted coins for themselves to spend and spread their influence and power. Bankers have created it as a lending instrument to offer financial products to their customers, either as banknotes or simply by writing it into their customers' accounts as "credit" or issuing bonds. Local societies and groups can themselves create money in "alternative" currencies in exchange for goods and services provided by other members of their group as we discussed earlier. In every case, whoever creates new money benefits from doing so by controlling the demand and supply elements of the money creation cycle, and generating a return from the services they offer. There is however a question that people are asking today, who should profit from creating money in official sovereign currencies issued by different countries, such as the Euro, the US Dollar and the Pound Sterling (Weale 2000)?

The supply of money as practiced in medieval times meant minting coins and putting them into circulation by spending them. The money supply process cemented their place as rulers and their control over their people. The power and wealth of a ruler depended partly on whether his coins were widely used by people in his own and other countries. King Louis IX of France (St. Louis) in the thirteenth century issued an edict instructing his subjects to use his coins for making payments throughout the kingdom, much as the Athenian government had ordered in the fifth century BC to ensure dominance and wider circulation of its coins. Rulers profited from producing coins of greater value than the cost of producing them. The profit was called seigniorage, which still applies today to part of the money supply cycle (Tooke and Newmarch 1857).

For example, the European Central Bank (ECB) spends much less on manufacturing euro coins and banknotes than their value as money. That creates a profit which the ECB distributes to Eurozone member governments. But today coins and banknotes make up only a small part of the money supply. Rulers were able to increase their profits by reducing the value of the gold or silver contained in the coins. This was known as "debasing the coinage". Henry VIII of England (1509–1547) did it. What most of us remember about him is that he had six wives, replaced the Pope as head of the Church of England, and "dissolved" the monasteries and took possession of them himself. But he also got the nickname "Old Copper-nose". He made everyone exchange their silver coins for new copper coins, covered with a thin surface of silver to make them look genuine. But the silver wore off the King's nose on the coins and people saw he had cheated them. Debasing the currency has been one way of deceiving people about money. Other tricks became more important as paper money and electronic money became more important than coins (Godard 2007; Toniolo 1988).

2.7 Paper Money

Research and social studies has shown that paper money had been long used in China for many years. It was reported that when Marco Polo returned to Venice from China in 1295, he described in his book, The Travels of Marco Polo, how Kublai Khan's government issued paper notes authenticated by his officials. To ensure wider circulation people throughout China were compelled to accept them as money, and anyone who counterfeited them was sentenced to death. The ability authority to create unlimited amounts of paper money gave the Great Khan more power to control economic life in his vast country than rulers in Europe had at that time. They depended on having enough gold and silver to mint coins and issue paper money. As a result, economic life flourished in China at that time (Davies 2002).

Marco Polo's book and his description of the money creation system and economic life as a consequence in China encouraged bankers in Europe to use paper money. From the thirteenth century paper "bills of exchange" helped merchants and bankers to do business in different places. This has become the new media of exchange instead of carrying heavy loads of various kinds of coins. A merchant could buy a paper bill of exchange from his banker before he set out on his travel or business journey. This bill of exchange would instruct the banker's agent in another city to pay the merchant a certain sum of money in that city's currency on a certain day in the future, so that he would have the right money to spend when he arrives to his destination to undertake business activities. Bankers and goldsmiths also gave paper notes as receipts and "promises to pay" to customers who had deposited coins, gold and silver with them for safekeeping (Lindgren 1980).

During that time, people began to pass on these bankers' notes to one another as a convenient means of payment. Over the following centuries the notes became a widely accepted substitute for money, and eventually they were recognised as actual money. That is how banknotes came into existence. For several centuries banknotes continued to be linked to the value of gold and silver, and gold and silver coins. In France, for example a 10-franc banknote represented a weight of gold worth 10 francs. Because the link with gold no longer now exists, a Euro note today simply says "10 EURO". But, British banknotes still remind us of the link; for example, a £10 note says, "I promise to pay the bearer on demand the sum of £10". If you presented a £10 note at the Bank of England today and demanded the promised weight of gold, they would think you are out of your mind, so what you would be paid in exchange is exactly £10 not more and not less (Davies 2002; Godard 2007).

The highest ranking Jesuit priest in the sixteenth century stated at that time that merchants and bankers "have so many tricks for inventing ingenious practices that we can hardly see what is going on at the bottom of it all". Until then the tricks invested by merchants and traders were mostly designed to conceal that bankers were lending money for interest, which was a sin according to Christian teachings. However, as time went by such teachings changed and interest became non-questionable as a sin, and bankers were able to profit openly from lending money for interest. They even learned a new ingenious tricks; how to create money

out of nothing in order to lend it and introduce it to the financial system (Orsingher 1964; Al-Baz 1999).

Thereafter, the concept of charging interest and creating money from nothing has become widely acceptable and practiced everywhere. Thus, their experience as bankers showed them that, with their banknotes circulating as means of payment for goods and services, they were rarely asked to pay out more than a fraction of the gold which their customers had deposited with them. As a result, they realised that they could lend more money in the form of paper banknotes than the value of the gold they held and make more money. The interest charged by the banks from lending paper banknotes was much greater than the cost of printing them, so lending them was very profitable and this has feud such practices in the whole of the banking system. However, if customers rightly suspected that a bank had lent too much paper money, and they all rushed to the bank to get back their gold money, but it wasn't there, the bank collapsed and, as a result, many customers lost their money (Al-Baz 1999; Davies 2002). Does that sound familiar and can you relate it to the financial meltdown of 2008!

For many years people argued that banks should not be allowed to create new money as banknotes. The second US president, John Adams (1797–1801), said that every dollar issued as bank notes beyond the quantity of gold and silver held by a bank "represents nothing, and is therefore a cheat upon somebody" (Usher 1966; Veblen 1899). Today central banks like the European Central Bank have taken over the printing of banknotes on behalf of governments. But the commercial banks have learned a new trick. Electronic money in people's computerised bank accounts has now replaced banknotes as the largest part of the money supply. The commercial banks now create it simply by writing profit-making loans into their customers' accounts. Today's reformers say electronic money should now be issued on behalf of governments, as coins and banknotes are.

2.8 Faith-Based Concept of Money

Money in the classical texts of *fiqh* refers to coins and nothing else. In practice, moneys are raw metals and are weighted rather than counted. In so doing Islam does not innovate but shares the conception of all pre-industrial (traditional) societies whatever their belief or faith were. According to the Sunnah money must possess an imbedded value, i.e.: the value of the money, whatever that value might be—and regardless of changes in value that might naturally occur—is stored *within* the money and cannot be found *outside*. Money is thus immune to arbitrary external manipulation and devaluation. One can speak quite rightly of commodity money, i.e., money whose value comes from a commodity out of which it is made. They are objects that have value in themselves as well as for use as money, the standard being precious metals or commodities that are consumed regularly as food (Al-Ashkar 1998; Al-Akhdari 2006; Al-Baz 1999).

The history of money in Islam starts with the use of the Roman Byzantine gold *denarius* (dinar) and the Persian silver *drachma* (dirham). Both are accepted as the monetary units for Muslims, i.e. as Islamic money (both words are found in the Quran 3:75 and 12:20). The Islamic state struck its own dirham as early as 18AH prominent Muslim scholars of the past (al-Ghazzali, Ibn Taymiyyah, Qudama Ibn Jaafar, Ibn Khaldun, al-Maqrizi) have asserted that God has created the two metals as a medium of exchange and a measure for all things. Gold has played the role of money throughout the Muslim history, albeit some hiccups occurred with the copper *fulus* and with fiat money towards the end of the Ottoman empire era (Al-Baz 1999).

Although there was a dictum that the Byzantine Solidus (Roman coin of nearly solid gold) was not to be used outside of the Byzantine empire, there was some trade that involved these coins which then did not get re-minted by the emperors minting operations, and quickly became worn. Towards the end of the seventh century CE, Arabic copies of solidi dinars issued by the Umayyad Caliph Abdul Malik Ibn Marwan (685–705 CE), who had access to supplies of gold from the upper Nile, began to circulate in areas outside of the Byzantine empire. These corresponded in weight to only 20 carats (4.0 g), but matched with the weight of the worn solidi that were circulating in those areas at the time. The two coins circulated together in these areas for a while (Al-Ashkar 1998).

The gold coins were first struck to the contemporary standard of 4.4 g and with one or more Arabic standing figures on the obverse and an Arabic legend on the reverse. Dated coins existed from 74 AH (694 CE) and are named as 'Dinars'. These experimental issues were replaced in 77 AH (697 CE), except in North Africa and Spain, by completely epigraphical designs very similar to the designs adopted for the silver pieces, but with a shorter reverse legend and no annulets or inner circles. This type was used without appreciable change for the whole of the Umayyad era. During which coins were struck to a new and carefully controlled standard of 4.25 g. This weight was reputed to be based on the average of the current Byzantine solidi, which was called a Mithqal, which is a unit of mass equal to 4.25 g that is mostly used for measuring precious metals (Al-Akhdari 2006).

The first dated coins that can be assigned to Muslims are copies of silver Dirhams of the Sassanian ruler Yazdegerd III, struck during the rule of Uthman Ibn 'Affan. These coins differ from the original ones in that an Arabic inscription is found in the obverse margins, normally reading "in the Name of Allah". The subsequent series was issued using types based on drachmas of Khosrau II, whose coins probably represented a significant proportion of the currency in circulation. In parallel with the later Khosrau-type Arab-Sassanian coins, first issued under the Well-Guided Caliphs of Islam, a more extensive series was struck with Khosrau's name replaced by that of the Caliph. Historical evidence makes it clear that most of these coins bear Hijra dates. The earliest Muslim copper coins are anonymous and undated, but a series existed, which may have been issued during the time of caliphs Uthman Ibn 'Affan or Ali Ibn Abi Talib. These are crude copies of Byzantine 12-nummus pieces of Heraclius from Alexandria (Al-Baz 1999).

By the year 75 AH (695 CE) Abdul Malik Ibn Marwan had decided on changes to the coinage system. A scattering of patterned pieces in silver existed from this date,

based on Sassanian prototypes, but with distinctive Arabic reverse. This experiment, which maintained the Sassanian weight standard of 3.5–4.0 g was not proceeded with, and in 79 AH (698 CE) a completely new type of silver coin was struck at 14 mints to a new nominal weight of 2.97 g. Unlike the contemporary gold coinage, this figure does not seem to have been achieved in practice. The average weight of 60 undamaged specimens of 79–84 AH (698–703 CE) is only 2.71 g, a figure very close to that for a unique coin of 79 AH (698 CE) struck with no mint name (as was the standard procedure for the gold dinars produced in Damascus). These new coins which carried the name of 'dirham', established the style of the Arab-Sassanian predecessors at 25–28 mm in diameter. Their design is composed of Arabic inscriptions surrounded by circles and annulets. In the following centuries, counting superseded weighing as a legally valid method, and money became a numeraire. It was not before 809 AH/1405 CE that copper money with little intrinsic value, struck by the Mamluk rulers, superseded silver coins in foreign and remote trade (Al-Ashkar 1998).

Moneys traded according to their conventional value, in general where the intrinsic value was of lesser importance, since the earliest times. This was the case of *locally restricted currency* (usually copper moneys called *fulus*) used for small transactions whose value was based on the close social ties between the traders and trust based on personal links. It was therefore used in small networks of people where social control guaranteed the exchange value as a customary practice (*'urf*). At the time of the Prophet (pbuh) there is evidence that copper coins, whose intrinsic value was below face value, was being used usually in local context. Then, the use of conventional money spread (Al-Akhdari 2006).

As I discussed above gold and silver money used to be deposits for the issuance of promissory notes that then circulated from a person to another, which was the start of using paper money. Classical Islamic scholars discussed the concept of money in Islamic economics and defined key aspects for what can be considered money, which applies to paper money today. Some of the conditions that were extracted from the classical books of jurisprudence are outlined below (Al-Ashkar 1998).

(a) Paper money can be viewed as a banknote representing the deposit of gold or silver and this view is held by several Islamic scholars. Historically, the connection between gold and paper money via a debt relation between the central bank and the money holders is convincing. The rules for exchange of debts apply and the full back of the currency issued by the central bank is required.
(b) Paper money can be viewed as a replacement for the value of gold and silver as *suftaja* (promissory note to be paid to the bearer). Thus, paper money itself attracts the characteristics of the respective precious metal. The currency is seen as if it were the metal it is based on, (Islamic Development Bank opinion). The rules for exchange of debts can be circumvented. However, equating paper money with gold and silver, respectively, can only be justified if it is completely backed by a precious metal. This can only be secured if central banks hold a 100% reserve to back paper money circulation.

(c) Paper money may be given the same legal position as *fulus* in classical legal thought, however, this view should address the issue of local circulation. This view applies the Shariah ruling (*hokum*) of a sub-ruling to the main issue being considered, which would be highly contested under Shariah rules.
(d) Paper money can be seen as one measure of value among many. However, this approach involves a major *gharar*. Since money is not backed by real assets, only the strength of the economy serves as a guarantor for money. This does not stand as a cover and baking for paper money from a Shariah point of view (Ayub 2007).

2.9 The Nature of Money

Bjerg (2015) explains that the fiat theory of money says that money is ultimately the creation of the state or another sovereign entity. A classic formulation of this theory is found in Georg Friedrich Knapp's *The State Theory of Money*: 'Money is a creature of law,' and hence the 'soul of currency is not in the material of the pieces, but in the legal ordinances which regulate their use' (1924, 1–2). Keynes makes explicit reference to Knapp and indeed much of keynesianist economics is based on the idea of fiat money. More recent formulations of the fiat theory of money are found in Mosler (1997), and Wray (1998). The idea is that states make money through two simultaneous movements. With one hand, the state produces certain objects that are legally designated as money. With the other hand, the state demands the very same objects as payment of taxes, duties, fines, and other kinds of debt from the citizens to the state. Through this creation of both supply and demand the state initiates the circulation of money in the economy. Since all private economic agents are ultimately going to need state authorized money to pay their debts to the state, the demand for this money is soon generalized and it begins to circulate even in ordinary transactions between private agents (Bjerg 2015).

The problem of actual money systems that seem to realize the ideas of the commodity theory by connecting the value of money to gold (or other precious metals), is that they ultimately come up against the paradox that gold is priceless (Bjerg 2015, 96–100). With Žižek, we can understand the commodity theory of money as an effort to find the value of money in the dimension of the real by pointing to the intrinsic value of gold as the ultimate support of the currency. It is crucial to note how Žižek's definition of the real is anything but straightforward and even varies throughout his writings. At some points, the real is located in a positive existence beyond the sphere of symbolization. He defines the real as 'that which resists symbolization' and 'as the rock upon which every attempt at symbolization stumbles' (1989, 69–169). This seemingly ambivalent definition of the real captures very well the function of gold in relation to money. At first glance, gold seems to provide a foundation of intrinsic value that is not subject to monetary inflation. Yet at the same time, gold also 'resists symbolization'. If gold is the standard against which all other commodities is priced, how do we price gold itself. Gold turns out to be

priceless in both meanings of the term. We might go even one step further and question the very value of gold. Perhaps the value of commodity money is not derived from the value of gold, but the other way around. The reason why gold is so valuable is not that it incarnates a special form of intrinsic value, but rather because it is endowed with this special function in relation to money (Žižek 2006).

Modern capitalist theory of money does not differentiate between money and commodity. Actual money systems usually combine the model of fiat money with elements from commodity money. This could be illustrated by issuing a national paper currency that is backed by a gold, typical fiat money are characterised by being devoid of any intrinsic value. In the matter of exchange, money and commodity both are treated at par. Both can be traded in and can be sold at a price the parties to the transaction agree upon. According to Islamic principles, money and commodity have different characteristics:

- Money has no intrinsic utility. It cannot be utilized for fulfilling human needs directly as commodities do.
- Commodities can be of different qualities, while money has no quality except that it is a measure of value and a media of exchange.
- Commodities have particular specifications, money, however, cannot be pinpointed in a transaction of exchange (Al-Juwaini 2007; Al-Ghazali 1997; Al-Qazwini 1999; Habannaka 1988; Hassan 1999; Alamad 2017a).

In a capitalist system, money is more a commodity of trade and, as such, can be bought, sold, and speculated freely. In other words, it has a time value and one who uses other people's money must pay for doing so in the form of interest. However, a faith-based concept of money views money as, on the one hand, something that cannot be hoarded and, on the other hand, something that cannot be wasted in large quantities. Given these two limits, the capitalist method of banking, which is based on interest, is, as much as regards the objective, totally opposed to the general intentions of faith-based rules, because such rules treat money as a unit of account and a means of exchange and not a store of value, since money, by itself, performs no function and is not a commodity. It becomes useful only when it is exchanged into a real asset or used to buy a service. Therefore, it cannot be sold or bought on credit. The underlying reasons for this are (Ahmad and Hassan 2006):

(a) Money has a technical property of yielding its owner's real income simply by holding it and not exchanging it with other goods.
(b) Money is liquid, virtually no carrying or production costs are involved, and it has no substitute.
(c) Demand for money is unreal, as it is derived from demands for goods that money can buy.
(d) Money is exempt from the law of depreciation, to which all goods are subjected.
(e) Money is the product of a social convention having a purchasing power that results mainly from sovereignty as against the inherent value of other goods.

According to Imam al-Ghazali (a classical Islamic jurist) the creation of *Dirhams* and *Dinars* or money is one of the God's blessings. The important function of money

is to serve and facilitate exchange transactions and it is not an objective in itself. Treating money as a commodity like trading money contradicts the Shariah principles and brings more harm than benefit to the commodity, i.e. promotes inflation and creates injustice in society. Moreover, the consequence of treating money as a commodity would disconnect financial transactions from being linked to the real economy. This means that it prevents people from undertaking real economic activities (Al-Ghazali 1997).

Unlike capitalist economics, where theories of interest are based on the presumption that money is a commodity, Islam views money and commodities differently:

(a) Money has no intrinsic utility. It cannot be utilized to directly fulfil human needs, but can only be used to acquire some goods or services. A commodity, on the other hand, has an intrinsic utility and can be utilized directly without exchanging it for something else.
(b) Commodities can have different qualities, while money's sole quality lies in the fact that it is a measure of value or a medium of exchange. Therefore, all units of money having the same denomination are exactly equal to each other.
(c) In commodities, selling and purchasing transactions are affected on an identified particular commodity. For example, if "A" has purchased a BMW of a particular make and model and the seller has agreed to deliver that very car, the seller cannot force the purchaser to take delivery of an Audi, regardless of its make and model. Money, on the contrary, cannot be pin-pointed in a transaction of exchange (Ahmad and Hassan 2006).

2.10 Time Value of Money

The time value of money is the ability of money to earn return or interest over loans conventionally with time. In modern economics, the time value of money concept is practiced and accepted by many. Conventional banks charge interest on money lent to their borrowers and pay interest on money deposited with them by their depositors. This means that money on its own is a form of capital that is able to generate more money on its own without undertaking a real economic activity or trade. This is because an amount of money deposited in a bank is able to generate an interest payment by virtue of being deposited into a bank account.

The concept of the time value of money was developed by Martín de Azpilcueta (1491–1586 CE), or Doctor Navarrus, who was an important Spanish canonist and theologian in his time, and an early economist and the first to develop monetarist theory. Azpilcueta advocated that money in itself is a commodity that could be sold, be bought and used to generate revenue. His Manual de confesores y penitentes (1549 CE), originally written in Spanish, was enormously influential in the fields of canon law and ethics, and by the first quarter of the seventeenth century, it had gone through 81 editions. The Manual made an important step in the development of moral theology as its own discipline. One of the four appendices Azpilcueta wrote for the Manual, addressing exchange, supply and demand and money, has recently

been translated into English and published in 2014. In this work, Azpilcueta argued that the use of "money in exchanges is not unnatural," as Aristotle had claimed, and put money on the same level as any other merchandise, and, consequently, established that the morality of exchanges did not depend on money as their object, but on an equitable exchange (de Azpilcueta 2014).

He also came up with the monetarist theory that claimed that money is similar to any type of commodity and that its value is determined by its demand relative to its supply. This theory has come to shape and is used in economics to control the value and exchange rates of different currencies (Khan 1991). According to this theory, money has different values that are dependent on time. The time value of money concept claims that money has a present value and a future value. The future value is calculated from the present value based on a certain interest rate. The time value formulas are used to calculate the present and future values of cash, annuities and perpetuities. The present value of an annuity or periodical payment can also be derived using the time value formulas. These formulas are used to substantiate the present value of a series of payments that will be paid or received in a prolonged period of time. The receivable payments are discounted, and their present value is acquired.

There are a set of equations and formulas that are used to calculate the actual value of a certain sum in relation to time. The present value of perpetuity is also calculated when determining the time value of money. Perpetuities tend to involve an endless and constant stream of income through 'eternity'. A cash flow diagram is an aide that is used to calculate the time value of money. This diagram is typically made up of a horizontal line that has the present time on one end and the future time on the other end. This diagram often has the various cash inflows and outflows plotted along the line. The line is then divided in equal periods of time that could either be in days, months or years depending on whatever may be required by the business or the bank. All transactions are plotted along the line either as positive or negative transactions. Money paid out results in a reduction in the total balance and, thus, is recorded as negative cash flow. Negative cash flows are represented using arrows that are pointed downwards while positive cash flows are represented using arrows that point upwards. This is the method used by traditional banks in their accounting and financial reporting of assets i.e. loan, mortgages etc. The same methods are also used in the accounting and financial reporting of Islamic banks, which does not fit fully with the nature of financial products they offer. There are several conditions that should be met so that the cash flow method can work. For example, there should be equal time periods, all transactions must be carried out at the beginning and at the end of each time period, rates of return must always remain constant and all payments made throughout the payment period must be equal.

Hence, having discussed the key aspects of the time value of money concept and its origin, it is time now to examine it from an Islamic economics perspective. Islam recognizes the concept of positive time preference. All consumption and production activities take time and to calculate the time value of money based on the real time that used for the activities, which is known as ex post in modern economics. Time is considered as a valuable economic resource that can be illustrated in two key approaches.

(a) Opportunity cost of postponing current consumption, where current consumption brings more satisfaction than future consumption. Thus, compensation should be made for utility forgone today.
(b) Opportunity cost of not being able to invest funds in a productive activity. Owner of funds gives up possibility of earning a positive return on funds.

Moreover, the concept of positive time preferences is supported by majority of Islamic jurists.

They agreed that prices for cash sale and credit sale can be varied, for example the view of Grand Mufti of Saudi Arabia has permitted the installment sale wherein the credit price could be higher than the cash price. In Islamic jurisprudence, both time and place have impact on time value of money as characterised in the contract of *Salam* that support positive time preference. In this sale contract the price is paid in advance for future delivery of goods is less than the cash price (Ahmad and Hassan 2006).

Conventional economists are of the opinion that the present value of anything is greater than its future value, based upon the widespread human preference for the present possession of an asset over its possession in the future. Thus, conventional finance stresses that a sum of money loaned to someone should be repaid with a contractually stipulated increment. Similarly, the deferred price of a commodity should be higher than its spot price to compensate for the difference between its present and future values. Modern banking and finance are based on the concept of money's time value. This value is considered a basic investment concept and also a basic element of conventional financial theory and, in return, is fully compatible with the conceptual system of economic science. The established techniques of cash-flow analysis, as well as the cost of capital and valuation of assets, constitute the *modus operandi* of modern finance, as well as of such financial institutions as the stock exchanges, central banks, commercial banks, non-banking financial institutions and the world of trade (Masri 1991).

Shariah does not prohibit increment in the price of a commodity in any sale contract to be paid at a future date. What Shariah does prohibit is making time value of money an element of a lending relationship where it is claimed as a predetermined value. In that event, Shariah requires that a loan is paid back in the same currency by which it was given. The value (i.e., purchasing power) of paper currencies varies with changes in many variables over which the two parties of a loan contract usually have no control. Within the context of Islamic finance, this concept is established by the fact that Shariah prohibits the mutual exchange of gold, silver, or monetary values except when this is done simultaneously.

The reasoning behind this is that Islamic jurisprudence does not allow people to profit from using a currency that they have received before being given its counter-value, a situation of which the other party could take advantage of. Furthermore, time valuation is possible only when goods are traded, not when exchanging monetary values, making loans or debts. There is near consensus among Islamic jurists that in a credit sale contract (such as *Murabaha* sale) where payment is deferred, a commodity's price may be increased. Although, this juristic opinion seems to be inconsistent, since it views time differently in the case of loans and credit

sales, on closer scrutiny of Islam's actual perception of time's economic role, one may conclude that this matter is not as people assume. Some scholars working in the Islamic finance market still find it difficult to differentiate between what is recognised in the Islamic economic thought as time value of money and charging interest for positive-time preference (Masri 1991).

It is may be worth if I summarise this difference in very simple terms, time value of money is accepted in contracts of exchange in Islamic finance, but not in contracts of debt. Furthermore, when the outcome of a contract of exchange is concluded, the sale price becomes legal obligation due to the seller i.e. the price is paid on credit, it is prohibited then at that point to factor positive-time preference as the deferred sale price becomes debt obligations. Any increase in payments or charges over the due amount to factor in increased payment term, restructuring, default or rescheduling of the deferred sale payments by factoring any lost opportunity cost would be clear interest payments that are impermissible under Shariah rules. This aspect is very important in the accounting treatment, financial reporting and the Shariah compliance audit of Islamic financial institutions (IFIs). The principles mentioned above would apply to all products and services provided by IFIs and their accounting treatment should reflect that. Unlike, conventional financial institutions, which charge interest on loans, mortgages, debts restructuring or interest charges on default of loans repayment that are usually compounded, IFIs are not allowed to do that under Shariah principles. IFIs are only allowed to recover any actual costs resulted from defaults on finance payments, any excess of the actual costs would be donated to charitable institutions. This process and its accounting procedures is audited by Shariah advisers and auditors of the IFI as part of its governance structure.

Some Islamic economists have argued that *bay' mu'ajjal* and *bay' salam* are permissible modes of trade in Islam. In these types of sale as explained above, the price of a commodity sold on credit basis or advance payment basis respectively, can be different from its spot price. This, according to them proves that Islam recognizes difference in value due to time-element. In other words, it means that Islam does have a concept of time preference. Islamic jurists have, no doubt, allowed a difference between the price of a commodity if it is delivered now and the price if it is delivered sometime in future or between the cash and credit price of a commodity. But this does not necessarily mean that they have allowed getting a predetermined time value for money (Khan 1991). The difference in the present and future values of the same commodity cannot be considered to have been allowed just because of the pure time element involved. The jurists could have allowed this difference because they recognized that supply and demand forces are different at different points of time. Perhaps, this is why they allowed the future price in a credit sale contract to be higher, lower or equal to the present price. As far as the classical books of jurisprudence are concerned, they never said that the price in *bay' mu'ajjal* should always be higher than the present price as a rule. Same is the case of *bay' salam*. The permission for the difference in the price of a commodity to be delivered in future is likely to be simply a recognition of the forces of supply and demand that may cause prices to differ at different points of time. It is quite possible that the actual market price when the good is delivered may turn out to be less than the price that the

buyer paid at the time of the contract. It is, in fact, this risk that justifies the profit that he may earn if actual market price at the time of delivery turns out to be higher than the price he paid (Ahmad and Hassan 2006).

Hence, according to this view it is not correct to argue that the permission for *bay' mu'ajjal* and *bay' salam* is an unqualified recognition of the concept of pure time value. There may be recognition of sometime value, but the nature of this time value needs to be clearly understood. This argument can be simply answered by saying that for Islamic jurists not to say that the prices should be always higher when the sale is done on credit, does not in any case suggests that they do not recognise the concept of time value of money or time preference. This concept is formulated recently and is being argued by contemporary Islamic economists when positive time preference becomes an integral part of the conventional financial system and trade. The conventional economic concept of positive time preference suggests that the price should be always higher as the main contracts underpinning this concept in the conventional system is an interest-based loan contract. This is a key difference that should be considered carefully in the debate about the concept of time value of money in Islamic economics in contrast to the same concept in the conventional economics.

2.11 Conclusion

This chapter discussed the concept of money, paper money and its origin. We have explored in this chapter how the concept of money has developed from primitive societies that included various items of value to the metallic money gold and silver coins, throughout to fiat money and digital currency. This historical analysis has shown us how the concept of money has evolved over time with the development of human civilization and needs. Throughout history, people who have had most power have almost been rich. At the height of its empire in the fifth century BC, Athens forced all its allies to use owl of-Minerva coins; and all Athenian citizens had to hand over foreign coins to be recycled into owls of Minerva. This has been the dynamics to create a currency and ensure its wider circulation. This is because people must either provide goods or services, such as their work in order to get it, or pay interest for borrowing it. That applies to countries, as to people. Any country whose money is used by others makes a profit, as the USA does today from other countries having to use the US dollar as the main international currency. That is one feature of today's international economy that many people think is unfair.

The concept of money from an Islamic perspective is different to the conventional theory that views money as a commodity. Islam sets the rules clearly regarding money and its treatment, as such money is not a commodity and cannot be. Money should be exchanged at par and the exchange of the counter values should be done immediately. When money is considered as a commodity, this then would justify the conventional concept of time value of money as discussed here.

Conventional economists are of the opinion that the present value of anything is greater than its future value, based upon the widespread human preference for the

present possession of an asset over its possession in the future. Thus, conventional theory of money stresses that a sum of money loaned to someone should be repaid with a contractually stipulated increment. Similarly, the deferred price of a commodity should be higher than its cash price to compensate for the difference between its present and future values. Modern banking and finance are based on the concept of time value of money. This value is considered a basic investment concept and also a basic element of conventional financial theory. Shariah, however, does not prohibit increment in the price of a commodity in any sale contract to be paid at a future date. What Shariah prohibits is making money's time value an element of a lending relationship where it is claimed as a predetermined value, this is a pure interest-based contract. In that event, Shariah requires that a loan is paid back in the same currency by which it was given. The value of paper currencies varies with changes in many variables over which the two parties of a loan contract usually have no control. Within the context of Islamic finance, this concept is established by the fact that Shariah prohibits the mutual exchange of gold, silver, or monetary values except when this is done simultaneously.

Current financial system revolves around this concept, time value of money. This concept is reflected in the accounting standards, principles, treatment and financial reporting of all financial institutions. While it is conventionally justified due to the theory of money that advocates the concept of time value of money and views money as a commodity, this is not how Islamic economics and finance views this matter. As Shariah compliant institutions, Islamic banks offer financial products that are asset-backed, which is based on investment and trade in the real economy. There is currently a clear contradiction between this fact and the manner in which Islamic banks do and prepare their accounting and financial reporting of their operations and the financial services they offer, which follow exactly the conventional interest-based financial institutions. When asked about this and why they do not adjust their accounting and financial reporting according to the nature of their operations, the answer, provided by Islamic banks, is that this is the practice in the market and how the market understands accounting and financial reporting. However, it is their responsibility to educate the market, adjust their accounting and financial reporting to drive the required change and behaviour, that is still far from being achieved unless Islamic banks change their approach regarding this matter.

Next chapter discusses a key issue of paper money in Islamic jurisprudence and economic thought. I examine closely the argument of whether today's money is a single genus no matter how many banknotes or issuing countries there are, or it is a multi-genera money according to countries of issuance.

Chapter 3
An Analysis of Paper Money and the Concept of Multi-genus Banknotes

3.1 Introduction

As was discussed in the previous chapter (Chap. 2) the concept of money has evolved over time and we analysed its origins. The concept of money has developed from primitive societies that included various items of value to the metallic money gold and silver coins, through to fiat money and digital currency. This has initiated a juristic debate in Islamic jurisprudence about the genus of today's paper money. This matter closely related to the prohibition of usury, which is the essence of the Shariah rules regarding all forms of exchange transactions of paper currency (fiat money) today as explained in this chapter. The key question regarding paper money, in Islamic jurisprudence and economic thought, is whether it is a single genus no matter how many currencies or issuing countries there are, or it is multiple genera according to types of currencies that exist?

In this chapter I will first extrapolate the views of modern Islamic scholars on this matter, such views are divided into two streams. The first view considers that paper money is a multiple genus according to countries of issuance. The other view considers paper money as a single genus, regardless of the number of countries printing it and issuing it, and regardless of its various names and forms, such as GBP or US Dollar. Then this chapter analyses each view, its argument indicating the reasons for each argument and implications, based on the Islamic jurisprudential rules and economic thought. The important outcome of the analysis provided in this chapter is that any exchange of currency should be done immediately according to the prevailing exchange rate of the currencies at the time of exchange.

It was narrated that Prophet Muhammad (pbuh) singled out items with restrictions and provisions that enjoined all Muslims to pay attention to them at the time of executing such transactions. Abu Sa'eed al-Khudri narrated that the Prophet said: "Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates and salt for salt like for like and hand to hand. Whoever increases or asks for an increase in the counter value, that is *Riba* (interest) the receiver and the giver in it are

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_3

alike (sinful)." He also said: "if these items differed (not of the same genus), then you may sell as you like if the exchange was done hand to hand" (Al-Bukhari 1985).

What concerns us, in this discussion here, of these usurious (*ribawi*) items is gold and silver, which is a repository of wealth and valuables. Classical Islamic scholars have differed in the past in determining the cause of *riba* in gold and silver or why they are usurious items. However, this difference of opinions did not have the slightest impact in practical terms, as they all agree on both gold and silver as being usurious items. Also, they agree that gold and silver are two different genus, and therefore, they agree on the controls of their sale, i.e. the two counter values being like for like (gold for gold or silver for silver) and hand to hand (exchange is done on an immediate basis) when it is the same genus, and hand to hand only when the genus pairs (i.e. gold for silver or vice versa). This required control for exchanging these items that should be taken into account, whether gold and silver were in the form of money/coins, alloys, jewellery, pots or any other forms. Thus, it is important before I continue further in this discussion to reflect on the theory of money in the literature.

3.2 The Theory of Money

Money, as an institution is as old as civilization. The literature on money dates at least as far back as Aristotle (Meikle 1994; Menger 1892; White 1902; Evans 2015; Del Mar 1895; Cronin 2012; Rahn 1999; Radford 1945; Al-Ashkar 1998; Al-Akhdari 2006; Al-Baz 1999), and many variations on the story of the evolution from tribal communalism to barter to money have been told over the ages. A commonly accepted definition of money is along the lines of a commodity that individuals accept voluntarily in exchange for all other goods. Historically, the commodity has tended to be a precious metal, usually gold or silver. Granted, other things have served this purpose in isolated communities, but those are anthropological curiosities more than relevant examples here (Del Mar 1895). Historians and anthropologists have pointed out how the commodity theory is an incorrect account of the historical origins of money (Humphrey 1985; Ingham 2000; Hudson 2004; Graeber 2011). The commodity theory fails to recognize the role of the state or another sovereign power in establishing a currency as an abstract standard of account, and it also fails to understand the relations between debt and money (Ingham 2004). The importance of this critique is, however, not merely historical. As the commodity theory of money is explicitly or implicitly carried over into contemporary neo-classical economics, these failures to recognize especially the role of banks in the creation of money have significant implications for the conclusions that may or may not be drawn from its analyses (Werner 2005; Keen 2011; Hudson 2012; Jackson and Dyson 2013).

Even in modern times, the drive to reckon in terms of some form of money is so strong that even cigarettes can serve as money when conventional forms of money are not available (Radford 1945). Historically, money, per se, served four functions: medium of exchange, unit of account, store of value and a measure of value.

However, it could be demonstrated that these functions are generally separated in practice today (Cronin 2012; Evans 2014), which may lead to the conclusion that we might be witnessing the "end of money" (Rahn 1999).

Nonetheless, the ideal commodity to serve as money has been understood throughout history to be fungible, portable, scarce, divisible, and durable. Gold and silver qualify in this regard, as proven by history. Which of these qualities takes priority over the others is a matter of perspective. Within the context of Islamic economics and finance, the *Hadith* of prophet Muhammad (pbuh) that I mentioned above addresses the use of money and the avoidance of paying or receiving *riba*, suggests that fungibility is as important as scarcity and durability. It instructs individuals to exchange of like quantity for like quantity, gold for gold, barley for barley, dates for dates, etc. and never more for less. This presents an intriguing conundrum for holders of paper money, which tends to lose value over time. On the one hand, when one borrows, e.g., Sterling Pound (GBP) in a *riba*-free environment, one is expected to repay the same amount of GBP, no more and no less. On the other hand, when one repays the same quantity of GBP after some period of time, the fiat money's purchasing power generally has fallen; if the period of the loan is long, then the value might have fallen significantly (Evans 2015). The same amount of GBP in the future is worth less in terms of the goods and services that it can buy than what that amount of GBP was worth in the past.

Today, paper money replaced gold coins as a repository of wealth and valuables, every country issues what it needs of its own currency based on specific standards and requirements, which distinguishes it from the currency of other countries. Thus, contemporary Islamic scholars differed concerning the permissibility of exchanging a paper currency for a country with a paper currency for another country without regard to the Shariah control of uniformity of the two counter values (Al-Ashkar 1998; Al-Akhdari 2006; Al-Baz 1999). Some of them were of the view that this is permissible because each currency is a different genus to paper currencies issued by other countries. Others disagreed with that view and considered this to be impermissible because according to their view all paper currencies are one single genus, regardless of the number of countries issuing their paper money based on their own currency. It should be noted that some Islamic scholars tended to allow unequal quantities of two counter values of the same currency when its forms are different, such as a paper money and coins of the same currency, which I will be discussing further later on in this chapter.

The importance of this subject lies in the close relationship between the subject matter of this discussion and the contract of money exchange (*sarf*) from an Islamic economics perspective. Any contemporary applications of this type that are not being addressed before by Islamic scholars would require new reading and Shariah legal opinion. Especially, since it has become one of the financial contracts that is part of the daily life of people. Also, the importance of this subject to Islamic banks and their daily financial and currency transactions, which require clear Shariah guidance for them to remain compliant with Shariah requirements and avoid breaching such requirements. This assurance is performed in the form of Shariah compliance audit as part of their corporate governance. This is also more relevant

now with the emergence of new forms and types of currencies that are based on completely different criteria to what we know, such as Bitcoin and Cryptocurrencies that are based on algorithmic formulas and mining to generate this type of currency. Due to its importance to the daily life of people, not to mention that it is related to a very serious prohibition in Islam, which is to avoid falling into the trap of usury. This matter should be critically examined and the Shariah view and interpretation articulated for those who seek it.

3.3 A Comparative Analysis of Paper Money in Islamic Economics

In this section I discuss the two competing views about how Islamic jurisprudence view paper money, and whether it is one genus (species) or more. The key question that I will be dealing with here is whether paper money is multiple genera according to countries of issuance, or paper money is a single genus, regardless of the number of countries printing it and issuing it as its own national currency. This discussion is divided to two main sections as detailed below, Sect. 3.3.1 discusses the first view.

3.3.1 Paper Money Is Multiple Genera According to Issuing Countries

Those Islamic scholars who advocate this view argue that paper money is multi-genus banknotes according to the number of countries issuing their own currencies. Thus, according to this view the GBP is a genus different to Euro, also different to Saudi Riyal and US Dollar as each one of them is a different genus, and so on regarding all other currencies legally issued by different countries. Accordingly, selling Saudi Riyal for GBP will be subject to the Shariah rules regarding selling gold for silver, which requires the exchange transaction to be done on spot and hand to hand, while the inequality of quantities of the two currencies is permissible as well as all other legal currencies. This is the doctrine of the majority of contemporary Islamic scholars, including scholarly and jurisprudential academies and bodies, or individual opinions reflected in their own writings. The most prominent of these are the Islamic Fiqh Academy in Jeddah, the Islamic Fiqh Academy in India, the Senior Scholars Council in Saudi Arabia and the Islamic Banking Conference in Dubai.

It was stated in the resolution of the Juristic Council in Jeddah: paper money is cash in its own right as the same monetary value of gold and silver and other items of similar monetary value. It is also considered to be a different genus, have multiple genera according to the number of existing currencies and their issuing countries. Thus, they are subject to *riba* in its two types *riba* of different quality and quantity of

the same genus and *riba* of increase (*riba al-fadel* and *riba al-nasi`a*)[1] (Islamic Fiqh Academy 1987).

The Indian Fiqh Academy also states that: paper money of two different countries is two different genera. Accordingly, such paper currencies may be exchanged at the discretion of both parties (Islamic Fiqh Academy 2007).[2]

The view of the Council of Senior Scholars in Saudi Arabia was also the same, they concluded that: paper money is considered a monetary value in itself, same as in gold, silver and other items of monetary value, and it is different genus according to the country of issuance. Thus, it is not permissible to sell a currency for another currency or a currency for gold or silver not on the spot or hand to hand. Also, it is not permissible to sell an amount of a currency with a higher or lesser amount of the same currency, whether that is done on the spot or with the deferred delivery of one of the exchange values.

The Islamic Banking Conference in Dubai also reached the same conclusion as they state: each currency is a separate genus. The most prominent contemporary scholars of this doctrine are Abdullah bin Suleiman bin Manea, Othman Shubair, Wahba Al-Zuhaily, Ali Al-Qara Daghi, Abbas Mohammed Al-Baz, Mohammad Taqi Uthmani, Sheikh Ali Ahmed Al-Salous (Al-Manea' 1996; Al-QuraDaghi 2009; Al-Zuhaili 2002; Shubair 2001).

3.3.1.1 Evidence Supporting This View

The evidence on which this view was based is outlined below:

Firstly: Analogy. They drew an analogy (which is *qiyas* one of the secondary legislative instruments in Islamic jurisprudence) between paper money nowadays with gold and silver coins (*dinars* and *dirhams*), which were traded and were in circulation in the past, employing the same rationale of both being a monetary value.

Secondly: they quoted a series of evidence represented by the differences between the species of banknotes, which are summarised as follows:

- Each banknote is different from each other as valued by the issuing authority in that country.
- Each banknote is different from each other in relation to the acceptance criteria of its value and circulation as set out by the issuing authority in each country.
- Each banknote is different from the other based on the strength and weakness of the issuing country, and the power of demand and supply and circulation of that currency.

[1]Resolutions of the Islamic Fiqh Academy, Jeddah, 1406/2/7, p. 1882.

[2]Resolutions of Islamic Fiqh Academy in India, p. 69, resolution No. 2/3/4.

3.3.2 Paper Money Is a Single Genus Regardless of the Number of Issuing Countries

This view has identified all paper money that people are accustomed to today as a single genus monetary value no matter how many countries are issuing it or how many legal currencies are there in circulation. Therefore, Shariah rules and controls that apply to trading and dealing in gold for gold or silver for silver would apply to paper money, where the two counter values are of the same genus. This view is supported by a number of contemporary Islamic jurists (Al-Manea' 1996; Al-QuraDaghi 2009; Al-Zuhaili 2002; Shubair 2001; Ramadan 2011; Al-Bouti 2009).

They argue that paper money/currencies are one single genus, nonetheless, it has different forms, shapes, names and monetary or economic values. Thus, even if it is considered different from an economic or Shariah perspective, paper money in all its forms and different names and monetary value is derived from the same single genus.

This was the conclusion that Sheikh Mohammed Abdo Omar reached in his written research that was presented in the Islamic Fiqh Academy in Jeddah. Speaking of the change in currency value, he says: "If paper money is equal in circulation by people and in its monetary value, the sale is valid and that would be acceptable; because the genus and value are united. However, if it was equal in circulation or trading, but different in its monetary value, then the sale contract is invalid due to a major uncertainty (*gharar*) in this transaction". For example, if an item is sold for 3 *dinars* without specifying whether it is a Kuwaiti Dinar or a Jordanian Dinar etc., the transaction is not valid under Shariah rules due to the difference in the monetary value of each currency.

3.3.2.1 Evidence Supporting This View

Firstly: This view relied on AAOIFI Shariah Standard No. (1), which states "when there are two debts between two people, each one of them is a creditor and a debtor to the other, however, one owes dinars as the type of currency and the other owes dirhams. If they agree to off-set all or part of the debt against the other by agreeing on an exchange rate, this transaction is acceptable". Based on this Shariah standard, they argue if Shariah scholars accepted the possibility to set-off of the two debts, and agree that money is valued at similar amounts of a counter value currency, thus, this evaluation process is an evidence of the similarity between the two currencies, and the possibility of absolute equivalence in attributes, activity and monetary usage of paper money of all other types and currencies. This shows that Islamic scholars implicitly accept that paper money is a single genus.

Secondly: Analogy, those who adopt this view also employed analogical reasoning to argue and support their view. They drew an analogy between paper money nowadays with gold and silver coins (*dinars* and *dirhams*), which were traded and were in circulation in the past, employing the same rationale of both as representing a single genus of a monetary value.

They further added to their reasoning, which distinguishes their argument from the reasoning of the first view, that when paper money replaced gold and silver as a currency, all Shariah rules and provisions related to gold and silver became applicable to paper money. Scholars in the past did not differentiate among various gold and silver currencies as they considered it as one single genus of gold. Therefore, they did not treat an English gold pound differently to the Rashadi gold pound (the Islamic gold currency at the time of the Ottoman Empire). Accordingly, there is no reason to draw a distinction now to paper money of various currencies as different genera from what was the position regarding gold coins in the past (Al-Juwaini 2007; Habannaka 1988; Hassan 1999; Hourani 1997; Ramadan 2011).

Thirdly: They also argued to support their view by quoting the Shariah principle of 'blocking avenues to the prohibited' (*sad al-thara`a'*), as the concept of multi-genus paper money raises two things:

- It allows differentiation and increase between the two counter value currencies, which allows currency exchange companies and Islamic banks to undertake currency exchange transactions according to an exchange rate that they may agree upon between themselves. Therefore, allowing this would open the door to falling into *riba* in such transactions, because it allows the increase in one of the counter values of the two currencies. The prohibition of *riba* in gold has moved to paper money that replaced gold money and the same rules apply to paper money. Gold coins in the past were of different types, weights and values, e.g. an English gold pound was higher in value than the Rashadi gold pound, nevertheless, it remained one single genus due to its core nature of being gold.
- This would also exempt money changers from paying their *zakat* obligations regardless of how many currencies they own. This is because none of the genera of various currencies would remain in their possession for a full year to elapse to be eligible for the payment of *zakat*. This is because in that case one currency would be classed as a commodity and the other as a price.

3.4 Discussion of the Two Views of Paper Money

Before I discuss the two views regarding paper money in Islamic jurisprudence as outlined above, I should perhaps reflect briefly on the meaning of genus (*Jins*), which is a key word for the discussion here.

Jins in the Arabic language means genus, kind or species, such as human kind, which is wider than the word 'type'. Islamic scholars define *Jins* as something that is distinct and has many types that fall beneath it, or it is a noun referring to things of different types (Ibn Manzoor 1968). This meaning is also in accordance with the *hadith* (prophetic saying) mentioned earlier regarding how Muslims can transact when dealing with usurious items of the same genus or different genus. Thus, *Jins* means a genus that may have many types that are derived from that genus and its existence. This means that the six usurious items mentioned in the earlier *hadith*,

gold is a genus, silver is a genus, salt is a genus date is a genus etc. and each genus has different types (Al-Abhary 2009; Alexandari 1975). Hence, all gold coins are one genus and all silver coins are a different genus to gold. Accordingly, paper money of various currencies, as a replacement of gold as a currency, would be considered a single genus. As a result, it will be subject to the Shariah rules regarding trading in different items of the same genus, i.e. currencies exchange. This discussion of whether paper money is a single genus or different genus only emerged after gold coins were replaced with paper money. Before that turning point, people considered all gold coins as one genus with different values.

We have learned from the discussion above that analogical reasoning (analogy), which is one of the Islamic legal legislative principles, is a mutual instrument employed by the supporters of both views to aid their argument. Thus, it would be worth analysing this aspect more in-depth.

3.4.1 Discussion of the Rationale of the First View

It was argued that paper money today is subject to the rules of gold and silver coins (*dinars* and *dirhams*) of the past days, due to the common denominator between them (being a monetary value), which is the rationale for the analogical reasoning. Therefore, the key aspects of this argument are that the legitimacy as a monetary value for today's paper money was derived from the original legitimacy of gold and silver coins as money. Also, the common denominator, which is the rationale here for the analogy, is being a monetary value, which means the requirements of trading like for like (symmetry between the two counter values) and hand to hand (for the same genus) and hand to hand only (when they are different genus) that apply to gold and silver money will apply to paper money as well (Bin-Bayyah 2010; Al-Bahouti 1983; Al-Jarjani 1996).

It should be noted that the use of analogical reasoning by the supporters of the second view seems to be more structured and better laid down, in contrast to the advocates of the first view. However, the argument of both views could be criticised as being an analogy with a difference in the subject matter of this analogical reasoning. This is because gold and silver money, which is the origin, is different from today's paper money. The Shariah criterion for symmetry between the two items of the same genus in gold and silver money is weight, while today's Islamic scholars agree that the criterion of symmetry for paper money is its monetary value regarding two paper money notes with differing values issued by one country. Also, in the past, coins money (i.e. gold and silver) were almost stable in its monetary value. However, that is not the case with paper money, which is characterized by different negative phenomena, causing a constant fluctuation in its value depending on many factors, such as economic, financial and political factors that can affect its value. One of those key factors is the problem of inflation experienced by most paper currencies today, which the world did not know in the past when people were using gold and silver money.

The characteristic of monetary value in gold and silver coins is an intrinsic, original and self-originating attribute of gold and silver. If using gold and silver as coins or trading in them was abolished by relevant authorities, they will maintain their value as a commodity (Al-Juwaini 2007; Habannaka 1988; Hassan 1999; Hourani 1997). This, however, would not be the case with paper money, which its monetary value is not an intrinsic or self-originating feature of it. Its monetary value stems from the state issuing it and protecting its value and circulation, also from the confidence of people in it and its value (Hamra 2008; Al-Dessouki 1901). All these and other differences that I discussed above indicate that today's paper money is not like yesterday's gold and silver money, and the analogical reasoning drawn between the two types of money by both views is not accurate, and thus does not stand as an argument.

Some may, however, object to what I have outlined above by saying: if the elements of the analogy and its conditions as stipulated in the Islamic law have been met, and the rationale as the common denominator is there, all the mentioned differences between paper money and gold and silver coins are in form only, but not in substance. This is because it did not affect the definition on which analogy was established, namely, the monetary value and circulation.

Another objection could be also raised regarding the argument of those advocating the second view—as well as the previous objection—that the analogical reasoning drawn by them between the two types of money is not accurate, and thus does not stand as an argument from a different perspective to the one I put forward above. This is because gold coins were considered a single genus, even though it had different weights, values, quality of gold and sources of issuance (Al-Dimyatty 1989; Al-Bouti 2009; Al-Sarkhasi 1973; Al-Ghazali 1997; Ramadan 2011). While this differentiation was introduced to the different types of paper money, as it has made the various number of currencies of different genus according to the countries issuing them. Although paper money of the same currency is considered one genus in terms of the applicability of the rules of *riba* compared to coins, while it was accepted that the common denominator between the two is being a monetary value. Thus, the obvious question would be, if that was not the case with gold coins in the past, where did this difference in judgment come from?

I would move now to discuss the issue raised by the first view regarding the differences resulting from the multiplicity of sources of issuance of paper money.

This point infers the difference in the covers that these banknotes derive their value from. If so, we must point out that today's paper money has both tangible and intangible cover. The tangible cover is the money available from gold, other precious metals, commercial papers, trade, finance, strong foreign currency and cash reserves should be kept by central banks to meet liquidity requirements and cover the consumer banking deposits. The intangible cover consists of several considerations, the most important of which is a commitment of the state to back, support and stand behind its currency and the confidence and the reasons behind this support (Al-Zuhaili 2002).

Based on what I have already said, the cover that any country in the world seeks to provide for its currency is the cover which the rest of the world seeks to provide for its own national currencies. It is believed that a real matching in the monetary

value of currencies of two different countries cannot be achieved or realized, as there is a clear difference between all types of currencies in the world in terms of quantity and quality of its monetary value.

In terms of quantity, on one hand, this would include the amount of gold, silver, other foreign currencies, real estate or other national assets that are classified as a tangible currency cover. There are disparities in relation to what each country retains as a tangible currency cover. It is known, e.g. that the United States holds the largest amount of gold reserve in the world, compared to what other countries have of this precious metal (Al-Sayyed 1982; Al-QuraDaghi 2009; Qal'aji 2017).

In terms of quality, on the other hand, the speed in currencies trading and exchange, or the real volume of goods and services that were exchanged or paid for by a currency of a particular country during a certain period is an important factor. This also varies from one country to the other depending on the confidence and acceptance of a particular currency by its users worldwide in the first place. There are other considerations that could play a part in the increase or decrease of the number of transactions conducted in a particular currency, which is classified as qualitative considerations in the value of that currency (Al-Sayyed 1999; Sabbahi 1982; Tahawi 1995).

Thus, all or most of the cover elements, whether tangible or intangible, are available to all types of paper money. The value of each currency is derived from the value and strength of its cover. This disparity is a difference in quality and inferiority according to Islamic law. It is like the difference between the English gold pound and the Rashadi gold pound, or the difference between 21 carat gold and 18 carat gold (Al-Abdari 1995).

As for the argument that paper money differ from one another in what the issuing authorities take for reasons of acceptance and trust. This can be addressed as follows, it is known that every country in the world is striving to find reasons which increase the demand of people for its currency, gaining their confidence and wider circulation. In addition to, the high value of money or depreciation and decline of its value are phenomena faced by gold and silver money in the past as it is facing paper money today, albeit it was to a much lesser extent. There is, however, an intrinsic difference between gold and silver money, on one hand, and paper money, on the other hand, gold and silver coins retain their value as a metal, and can be still traded as an asset, even if its monetary or precious value is abolished (Al-Ghazali 1997; Fayoumi 1922; Al-Qurtubi 2016). But, the high or low value of paper money is completely reliant on the tangible and intangible cover and sovereignty behind that currency, which I discussed earlier. Therefore, the cover provided by the state and its strength is the key factor influencing the value of its currency. If that currency is cancelled, abolished or replaced it ceases to exist and it becomes a piece of paper without any value.

I would enrich this discussion by taking it a step further. If we assume that each currency that exists today is a single genus, how we would adjust this, according to this view, if the paper currency of two or more states united politically as one union, would the new currency be one genus or more? So, in that scenario what has changed when the European Union (EU) countries decided to use a single currency called

Euro, instead of their national currencies! Have multi-genus currencies become a single genus currency and how has the cover backing this single currency is changed? The currency was introduced in a non-physical form (traveller's cheques, electronic transfers, banking, etc.) at midnight on 1 January 1999, when the national currencies of participating countries (the Eurozone) ceased to exist independently in that their exchange rates were locked at fixed rates against each other, effectively making them mere non-decimal subdivisions of the Euro. The Euro thus became the successor to the European Currency Unit (ECU) (Hamra 2008; Al-QuraDaghi 2009; Ramadan 2011). The notes and coins for the old currencies, however, continued to be used as legal tender until new Euro notes and coins were introduced on 1 January 2002 (having been distributed in small amounts in the previous December). Beginning on 1 January 1999, all bonds and other forms of government debt by eurozone nations were denominated in Euros (Al-QuraDaghi 2009).

The multiplicity of cover and the difference in value is one argument presented by Islamic scholars who advocate the theory of multi-genus currency, which are the same in different EU countries. Today, the cover remained multiple in the EU member states of the single currency, despite the difference between them in relation to national income, economic power, inflation rate, unemployment etc. As a result of this union, EU member states agreed to cancel their various national currencies in order to unite their countries on one new single currency that has one name, new value and one form.

It is, may be, argued that the unification of two paper currencies between two states makes them one genus. This means that supporters of the first view have contradicted their original basis of argument. This argument was based on the differences among various types of currencies, and the value of each currency is a different genus estimated by the issuing state and applicable reasons of acceptance and trust in that currency.

3.4.2 Discussion of the Rationale of the Second View

Let us have now a closer look into the argument of the second view and its analogical reasoning, which is based on the view of the Islamic jurists that a set-off of two debts in different currencies is permissible. The process of evaluating gold coins with silver coins, when an offset between a creditor and a debtor of the two debts takes place, only indicates the similarity and equality between gold as a genus and silver as another genus. This does not mean, in any way, that we can assume that all paper money is a single genus even if it is issued by multiple sources (Al-Qazwini 1999; Al-Kasani 1910; Al-Kafwi 1982).

As for the reasoning regarding the Shariah principle of 'blocking avenues to the prohibited' (*sad al-thara`a'*), by arguing that multiple-currency notes permit the difference between the two exchange-rate models, and from that it is permissible to sell a currency at any value a person may wish. The answer to this argument is that this reasoning is based on an *Ijtihad* (scholarly interpretation) where a primary text

already exists, i.e. the *hadith* of Prophet Muhammad (pbuh) regarding the six genus of usurious items that I mentioned earlier. Therefore, such an *Ijtihad*, as a secondary legislative instrument, would not stand or have any bearing if it contradicts or not in accordance with an existing primary text. This text, which is a primary source of legislation, has permitted any differentiation when the genus of the two counter values or items is different. In that context, the Prophet said: "If these items differ, then sell as you wish, but it has to be hand to hand" (Al-Bukhari 1985).

This objection as outlined above can be answered in two ways:

The first aspect: the multiple genus view requires the possibility of differentiating the two variables i.e. counter values, by making one of the two items a commodity and the other a price. However, if paper money lost its monetary value, as one of the counter values in that exchange transaction, it becomes worthless. So, how in that case after losing its monetary value as money it becomes a commodity of value?

The second aspect: if we accept the permissibility of differentiation when the genus of the two variables is different, but this difference is not proven yet due to other contradicting evidence as discussed above. As for the concerns that payment of *zakat* (compulsory alums-giving 2.5% on wealth annually) could be abused if paper money is considered a multi genus currencies, because money exchange bureaus will not have any genus of paper money or currency left by the end of the calendar year to be eligible for *zakat* payment, is not a valid reason for that opinion. The rationale provided by this view, regarding the consideration of paper money as a single genus is to prevent money changers from evading the duty of *zakat*, is not good enough to stand as an argument as this matter was discussed and concluded by classical Islamic jurists. The issue of discontinues of the *hawl* (full calendar year) if a person sells a qualifying *zakat* threshold (*nisaab*) by another currency of the same genus was discussed in the past with different scholarly conclusions.

The Maalikis and the Hanafi jurists did not consider the difference of genus in calculating and paying *zakat* on the money. They considered it as one single genus when performing the duty of paying *zakat*. Even though, they agree that in a contract of exchange the gold *dinars* and the silver *dirhams* are two different genera. So, they agree that albeit they consider each item as a different genus, when it comes to *zakat* payment this differentiation is not considered, and the *zakat* threshold would be based on paper money of all currencies including gold and silver coins as if they are a single genus money (Al-Mardaoui 1957; Masri 1991).

As for the Hanbali jurists, they are of the opinion of non-interruption of the full calendar year by selling the threshold of *zakat* for money of the same genus. They said: if a person sold a *nisaab* of *zakat*, i.e. what is considered money and qualify as *zakat* threshold, for a counter value of the same genus, such as camel for camel ... gold for gold or silver for silver, the *hawl* (full calendar year) would not be interrupted and the *nisaab* from that point would be combined and added to the pervious *nisaab*. Based on the opinion of the Hanbali scholars the *hawl* would be interrupted if a person sold a *nisaab* he owns for a counter value of a different genus e.g. selling a camel for gold (Al-Maqdisi 1984; Al-Manea' 1996).

The Shafi'i jurists, however, are of the opinion that the *hawl* would be interrupted if a person sold a *nisaab* he owns for a counter value of the same genus. This means

that the *hawl* will reset from that point. They even were very clear that money exchange bureaus are not eligible for the payment of *zakat* (Al-Maqdisy 1984; Al-Nawawi 2008).

The origin of this debate is whether the payment of *zakat* is due in money being traded in the currency exchange market because of its monetary value (as money) or because of its substance. Thus, the majority of Islamic schools of thought, i.e. Hanafi, Maliki and Hanbali, except the Shafi'i consider the obligation of *zakat* payment is related to its monetary value as money. The Shafi'i school of thought, on the other hand, argue that the obligation of *zakat* payment is related to its substance rather than its monetary value as money or what it represents (Al-Hithami 2010).

Based on the above discussion and the argument presented by each party and my argument discussing the view of each of them, I am inclined to the view of the Maliki, Hanafi and Hanbali. This is because this view is closer to the context and core meanings of the Islamic law regarding this matter. Also, the view of the Shafi'i school could be potentially abused by some people to evade the payment of *zakat*, which is the right of the poor in society. As well as the Shariah principle of precaution in respect of the rights of people in society requires the adoption of the doctrine of the view of the Maliki, Hanafi and Hanbali schools (Al-Bouti 2005; Al-Sarkhasi 1973). Moreover, based on the earlier discussion of the arguments of contemporary Islamic scholars about whether paper money is a single genus or multi-genus money and weighing the reasoning of each party, I am drawn to support the view of a single genus. This is because this view is a) more in accordance with the view of the classical Islamic jurists regarding the application of *zakat* on money, as discussed above, b) it conforms to the linguistic and Shariah definition of the term (genus) as one kind that would have many types, therefore, paper money is one single genus that have many types or forms based on the legal national currency of each country, c) the depth and relevance of the argument of this view, after a close examination and consideration of the implications to *zakat* payment, seems to be stronger and provide more critical analysis. Also, the analogy which is drawn to the single European currency (Euro) and the argument I provided above in Sect. 3.4.1 would strengthen this view that all paper money is from one genus.

The argument of those who advocate the view of multi-genus paper money is encapsulated in what Sheikh Taqi Usmani said in the context of his interpretation of this view, which he supports in a paper he presented in the Islamic Fiqh Academy in 1987. He says: it appears that the legal symbolic currency of one state with its different units is one genus, and the currencies of other states are different genus. This is because the currency . . . is a specific measure of the purchasing power, and this measure varies according to each country. In addition to, the measure of each state would be subject to its list of prices, the amount of its revenue, the value of its exports and imports (Al-QuraDaghi 2009). So, there is nothing physical that predicts a fixed ratio of these measures, as such measures fluctuate on daily and even hourly basis, depending on the changing economic conditions in different countries. The crux of the matter in this view is that they view the difference in value between two currencies as the difference in value of gold between 24 carats of gold and 21 carats of gold. The Islamic Fiqh Academy adopted this view and stated that paper money of different currencies is not a single genus, but multi-genus money.

3.5 Digital Currency in the Context of Islamic Jurisprudence

Having discussed the views regarding paper money in economics and finance and the grounds on which each party argue their view. I am sure by now you are very keen to ask that question given the discussion I provided above. Well then, I think it is the time to reflect the discussion above on digital currency (DC), which is a new phenomenon that took the world by a storm. None of the major bodies of Islamic finance of jurisprudence has so far provided an analytical view and a Shariah legal opinion regarding what digital money is and how it can be treated from an Islamic commercial law perspective. The Islamic finance industry and the public are not sure or perhaps even confused about it and are wondering about the Shariah view regarding this phenomenon. Many are tempted to get involved to make some gains from trading in digital currencies, however, they are not sure whether they would be sinful under Shariah because they might fell into prohibitions of usury, speculations and major uncertainty by trading in digital currencies where any guidance is absent.

Before, I start discussing the view of digital money from an Islamic economics, jurisprudence and finance perspective, which will also provide guidance and principles for evaluating any future form of money that may emerge, it would be useful to briefly explain what it is and how it works. In order to achieve that I, first, discuss the platform that digital currency uses for trading, then the various types of such currencies and what it represents. Conceptually, a blockchain management system (BMS) as a platform for digital currency trading is a self-contained system for transferring numerical values from one account to another, such that no value is lost in transit between accounts, and double-spending is impossible. In this way, a BMS can be seen as a useful accounting system that would help institutions including IFIs. BMSs like Bitcoin (the most successful) exist as myriad copies of a piece of software that run on users' computers, communicate with each other over the internet, and have copies that are updated approximately every 10 min of the history of every transaction that has been completed within the system since its inception. If anyone's transaction history differs from others' it is considered to be incorrect and it is replaced with a copy of the correct record. To subvert the system, one would need to control more than half of the entire network and to corrupt the record in precisely the same way across that majority (Matonis 2014). When discussing Bitcoin as a system, I will refer to it as BMS, which refers to the software and the network of users, and when mentioning bitcoin or cryptocurrency, it refers to the unit of account in the system, i.e. the digital currency itself.

The outcome that we have seen among regulators is a tendency to put BMS-related activities into pre-existing regulatory 'buckets'. Within the context of Islamic finance, Shariah issuing standards bodies like AAOIFI face the same dilemma as conventional regulators. Although narrowly defined aspects of BMS fit into neat categories already defined by those regulators, the totality of BMS transcends conventional categories, and it falls on authorities to proclaim which

categories take precedence over others (Brito and Castillo 2013). This would create a problem from an accounting treatment perspective, if we consider that BMS the software is much more than the bitcoins and cryptocurrency units (BCU), simultaneously can be seen as digital currency (DC) liabilities of a kind of bank or central bank, as non-voting capital shares in the system as a whole, and a new class of commodity. DC can be used as a medium of exchange and as a store of value. Complicating things further, a programmer in Argentina has developed a way to embed messages into the BMS, as a kind of time stamp that serves a very similar function as 'notarization' (Kirk 2013). More surprising uses for this platform, are being developed, that can be reached from anywhere in the world with internet access, and can be used for all manner of transactions and services that are *de jure* regulated and now *de facto* unregulatable (Rosenfeld 2012).

3.5.1 How Is Digital Currency Money and How It Works?

From the perspective of economic theory, whether a digital currency (DC) may be considered to be money depends on the extent to which it acts as a store of value, a medium of exchange and a unit of account (Ali et al. 2014: 276). In contrast to such a 'perspective of economic theory', I shall be examining a philosophical approach that takes as its premise that the very ontological foundation of money is inherently undecidable. This is the position pointedly formulated by Graeber: 'money has no essence. It's not "really" anything; therefore, its nature has always been and presumably always will be a matter of political contention' (Graeber 2011: 372). As demonstrated by Ingham 'the mainstream, or orthodox, tradition of modern economics does not attach much theoretical importance to money' (Ingham 2004: 7). Perhaps not surprisingly, the Bank of England (BoE) approach to digital currency perfectly represents such orthodox thinking, asking the question: how DC is money?

Slavoj Žižek's distinction between the three different ontological orders, real, symbolic, and imaginary, as an analytical prism through which different dimensions of a money system is examined. As such, the nature of money is even discussed within the field of economics, we can distil three general theories of the origin and constitution of money: the commodity theory, the chart theory, and the credit theory of money (Werner 2005; Žižek 2006). The contention here is that neither of these theories is capable of providing a coherent and conclusive account of the nature of money, while at the same time each of them captures a dimension of the functioning of money (Žižek and Daly 2004; Wray 1998). Hence, I shall be employing, for the purpose of this analysis, the commodity theory, the fiat theory and the credit theory of money respectively as a series of ideal types to uncover the ontological constitution of DC as money. However, before I take you with me through this three-stage analysis, we shall be looking into the very mechanics of the BMS and DC (Bjerg 2015).

So, let us start by explaining how a BMS works. BMS is a digital network that allows users to transfer digital coins to each other. Each DC consists of a unique chain of digital signatures that are stored in a digital wallet installed on the user's

computer. The wallet generates keys used for sending and receiving coins. A transfer of DC is made as the current owner of the coin uses a private digital key to approve of the addition of the recipient's key to a string of previous transactions. The coin is then transferred and now appears in the recipient's wallet with a recorded history of transactions including the one just recently completed.

Since physical objects can only be in one place at the same time, a physical coin cannot be spent simultaneously on two or more separate transactions. Once the coin is in the hands of the payee, the payer cannot spend the same coin once again. A fundamental property of digital entities is, however, that they are easily copied and multiplied. In other words, digital entities can be in several places at the same time. Therefore, digital currencies or DC, as I prefer to call it, are faced with the problem of double-spending. BMS's original solution to the problem of double-spending is what makes it fundamentally different from conventional electronic payment systems and vastly more successful than comparable predecessors (Bjerg 2015). Rather than instituting a central authority of verification, BMS is organized as a decentralized peer-to-peer network. In brief, the solution to the problem of double-spending is to keep a complete and public record of all transactions in the network (Bjerg 2015). The enigmatic founder of Bitcoin, Satoshi Nakamoto, reflects on this problem and suggests a solution:

We need a way for the payee to know that the previous owners did not sign any earlier transactions. For our purposes, the earliest transaction is the one that counts, so we don't care about later attempts to double-spend. The only way to confirm the absence of a transaction is to be aware of all transactions. In the mint-based model, the mint was aware of all transactions and decided which arrived first. To accomplish this without a trusted party, transactions must be publicly announced . . ., and we need a system for participants to agree on a single history of the order in which they were received (Nakamoto 2008).

A transfer of DC is recorded with a time stamp by the network and bundled together with other transactions to form a so-called block. The block is processed by users making their CPU (central processing unit of a computer, CPUs are essentially the brains of the computer. It performs all the tasks that we would typically associate with computing) power available to the network. Different users compete against each other to see who is able to process the block faster. When a block of transactions has been processed and verified, it is sealed through an operation that connects it to the previous block and it is now added to the so-called blockchain. The block chain constitutes the entire history of payments in the system against which new transactions are checked for double-spending. The blockchain is a public ledger of transactions and balances in the system (Mosler 1997; Bjerg 2015).

A crucial feature of any monetary system is the way that it allows for new money to enter into the economy. BMS combines the function of money creation with the provision of incentives for users to participate in the maintenance of the system. By convention, the first transaction in a block is a special transaction that starts a new coin owned by the creator of the block. This adds an incentive for nodes to support the network and also provides a way to initially distribute coins into circulation since there is no central authority to issue them. The steady addition of a constant of amount of

new coins is analogous to gold miners expending resources to add gold to circulation. In this case, it is CPU time and electricity that is expended (Nakamoto 2008).

This shows us how new DCs are introduced into circulation as rewards to users that process and verify the transactions of a block. This process is also known as mining. It is, however, not enough to just do the rather simple task of processing and verifying transactions in order to claim the reward. In order to regulate the rate at which new DCs are created, BMS also requires miners to solve a certain cryptographic puzzle before a block may be sealed (Bjerg 2015). The puzzle can only be solved through trial and error and its level of difficulty is steadily increasing over time in order to match the progress in the development of CPU power (Rickards 2014). This means that miners' computers have to do a certain amount of 'work' in order to solve a block. On average, a new block is solved every 10 min. The amount of DC or bitcoins per block offered in reward is also adjusted so that the creation of new bitcoins follows a predetermined asymptotic trajectory.

Therefore, based on the above discussion a money has four functions: medium of exchange, unit of account, store of value, and measure of value. DCs serve the first two functions i.e. a medium of exchange and a unit of account as was discussed above where it is currently being used as such and this cannot be argued. However, DCs fail to meet the remaining two functions namely store of value and a measure of value due to its volatile nature and fluctuation in the market that exclude it from being money in that sense. Another conventional difference between DCs and paper money is that DCs are decentralised, unlike paper money which is issued by a central authority in each country.

At the time of writing there were 1629 DCs available on various platforms. I have categorised those into three main types (Bitcoin, Altcoins and Tokens) and under these three main types there are several hundreds of different concepts, contracts and branch of DCs based on the blockchain that coin/token is built on. These three categories are outlined below.

3.5.1.1 Bitcoin

The oldest blockchain in relation to cryptocurrencies and this type is the most famous currency/blockchain technology at the moment. Bitcoin usually dominates the entire market by at least 35% of the total global market capitalisation. Bitcoin is completely decentralized meaning no third party is involved in processing transactions, which are usually peer to peer. Instead, transactions get confirmed by other users on the blockchain according to the Bitcoin algorithms (miners are mostly the ones who verify the block to get rewards as "Satoshis"). The single purpose of Bitcoin is to be used as a digital currency (i.e. payment services, store of wealth, etc.)

3.5.1.2 Altcoins

The majority of Altcoins try to replicate Bitcoin as alternative versions (hence the name Altcoins). However, they differ significantly by concept, purpose and goals among themselves. Functionality differs from one coin to another based on the algorithms they use. For example, while some Altcoins follow Bitcoin algorithms and count on Miners to verify transactions, other Altcoins use PoS (Proof of Stake) where Stakers are the ones who verify transactions for rewards. Some Altcoins are not just built to be used as a digital currency. Instead, they are designed to be used as a platform to build various applications on the blockchain. This is possible due to the technology used by these Altcoins, called "Smart Contracts". A smart contract automatically executes transactions when a certain condition is met, thus no third party is required for this aspect too.

3.5.1.3 Tokens

Decentralized applications (dApps) that are built on other coins blockchain using smart contracts. Since the tokens (dApps) are built on other blockchains, the transitions are verified in the same way that the original blockchain uses for verifications (e.g. Stakers, Miners, etc.). If a Token manages to build its own blockchain and migrate the Tokens from the original blockchain to its own blockchain, then the token becomes a coin.

3.5.2 Digital Currencies from an Islamic Economics and Finance Perspective

It is now the time to address the key question that you have been eagerly waiting for me to answer. I have paved the way, through the analysis above, for answering whether DCs (bitcoins and cryptocurrencies) are money and can be treated as such, or a commodity and can be traded as such from an Islamic economics and jurisprudence point of view. Few opinions have been issued about the permissibility of DCs, some found it impermissible under Shariah and some accepted it as money and allowed its use. However, none of those few individual opinions has provided an in-depth analysis of How and Why, or for any such opinions to be adopted by a major Islamic body. The analysis I provide here contributes by discussing this matter in-depth and offering Islamic jurisprudence principles to assess existing DCs and any other form of money that may emerge in future.

The European Central Bank (2015) explains digital currency in its published document as a digital representation of value that is neither issued by a central bank or a public authority, not necessarily attached to a fiat money or currency, but is accepted by natural or legal persons as a means of payment and can be transferred,

stored or traded electronically. I would recall back my earlier analysis of the two traditional Islamic view regarding Fiat money and gold. According the Islamic view that suggests paper money is multi-genus, this means that DCs are multi-genus, assuming they are considered money. This means Bitcoins is a genus, Cryptocurrency is a different genus, Litecoin is another genus, Steller is also a different genus and so one. However, according to the other view, all DCs regardless of their types and names are a single genus, and the same argument would apply here as well. However, this argument would be irrelevant if DCs are not considered money in the first place! Thus, we should start by arguing whether DCs serve the function of money and meet the required criteria under the Islamic jurisprudence or not, and if not so how Shariah rules view DCs in that case.

Islamic scholars generally agree with economists about the function of money, whether they see it as money serves four or three functions, as mentioned above, this would not make any material difference to this discussion. Classical Islamic scholars debated in the literature what *maal* (wealth) is in a broader sense than just a monetary value. The Hanafi school of thought view *maal* as something that is desirable and can be stored for the time of need. Anything can be recognized as *maal*, when all or a group of people accept that thing as *maal* in their customary practice *('urf)* (Ibn Manzoor 1968; Al-Kasani 1910; Al-Kafwi 1982; Al-Sarkhasi 1973). The important factors according to this view for something to be considered a *maal* are: a. it is desired by people as something of value, b. it has a store value i.e. being capable to be stored for the time of need. Thus, according to this view *maal* is a tangible item, however intangible items, such as benefits and rights are not considered *maal.*

The other three schools of Islamic jurisprudence, the Maliki, Shafi'i and Hanbali are of the view that *maal* includes tangible and intangible items that are considered by people and their customary practice *('urf)* (Al-Juwaini 2007; Al-Ghazali 1997; Al-Qazwini 1999; Habannaka 1988; Hassan 1999; Hourani 1997; Al-Dimyatty 1989). Therefore, it would include rights, benefits, usufruct and trademarks. Some more recent Islamic scholars added that for something to be considered as *maal* it should be permissible under Shariah, can be possessed and owned with a clear benefit (Al-Zuhaili 2002; Al-Bouti 2009). Thus, alcohol, while it has value traditionally in society and can be stored and is of benefit, is not *maal* under Shariah because it is forbidden. Also, fish in the sea is not *maal* as well, because it is not owned or possessed by anyone, it becomes *maal* only when someone employs labour effort to fish it and own it.

Hence, based on the discussion above it can be argued that DCs are *maal* from an Islamic jurisprudence perspective. This is because it has value, it can be owned and possessed, there is nothing to say that it is not permissible under Shariah if we employ the Shariah legal maxim of 'the origin of anything is permissibility'. You should note here that I said, 'of value', but that does not mean it is money. So, if we established that DCs are *maal* like livestock, cars, goods, merchandise etc., then it would take the rule of a commodity in terms of trading. Therefore, we should look into its trading characteristics and behaviour and judge that according to relevant Shariah rules. But, let me first discuss the other possibility of DCs being money as claimed by some people. As we have seen, the core aim of DCs is to create a form of

money that does not rely on trust in any central authority. In this respect, DC is radically different from fiat money issued by a state of another sovereign entity and also different from money in the commodity theory that has an intrinsic value. Nevertheless, DC still shares some characteristics with the idea of money found in the fiat theory and commodity money theory.

I already established above that DCs have some aspects of the function of money. However, going back to my original argument regarding paper money and its cover and acceptability, this is absent from DCs. Fiat money has both tangible and intangible covers. The tangible cover is the assets, trade, money available from gold, other precious metals, finance, strong foreign currency and cash reserves etc. The intangible cover consists of several considerations, the most important of which is a commitment of the state to back, support and stand behind its currency and the confidence, and the reasons behind this support that people can rely on (Al-Zuhaili 2002). Also, the economic power and political stability of the country. DCs do not meet any of the above. Moreover, legally it has no sovereignty, legal entity or backing as discussed above, which makes money generally and in the Islamic law particularly acceptable as a legitimate monetary value.

There are further issues that should be looked at regarding DCs, if I go back to the three main types that I categorised above for DCs, namely Bitcoin, Altcoin and Tokens they are not all the same. Some of them e.g. allow transactions without due diligence (DD) of the users or who is undertaking the transaction. Also, the 'Smart Contracts' type under Altcoins pays its Stakers (users) dividends to guarantee the value of its coin and compensate its Stakers for any loss they may suffer due to fluctuations in the value within certain limit, say e.g. up to 7%. This functionality of 'Smart Contracts' coins and the guarantee element is not acceptable under Shariah rules due to the reasons I outlined above regarding such transactions. Furthermore, if we consider this as money, which attracts dividends to its holders say e.g. 7%, this is viewed as interest payments from an Islamic perspective. Such dividends are paid in kind i.e. in the same coins, thus, this is a clear interest payment if we consider DCs as money. Profits and dividends, under Shariah rules, can be only legitimate if they are generated from a real trade in assets and commodities.

Complicating things further, when a person places an order to buy a DC, they have the choice to place the purchase as a limit order or as a market order, I am going to discuss the purchase transaction from two aspects. The first aspect is regarding the purchase process, when a person places a market order to buy a DC for say £100, the price of units bought of the same DC in that single transaction would be different. It starts buying the first unites at the market value; say the first £10 at the market value which would buy you e.g. 10 DC coins, however as the order progresses while you are purchasing you are driving the price up and up gradually until your order is completed and paid the £100 you want to spend to buy the chosen DC. In this case while you have bought 10 DC coins with the first £10 of the £100, the number of DC coins bought decreases subsequently for the following £10 to e.g. eight coins and will decrease further to e.g. six coins in the £10 that follows, and so on until the purchase order is fully executed.

Thus, as a buyer of DCs spending one amount of £100 to buy a specific DC, you would be bidding against yourself in that purchase transaction and driving the price up while the market order is being executed. So, the price you pay for each DC coin or unit is different to the other in the same purchase order. The same process also applies when you sell your holdings of DCs, but it works in reverse i.e. it starts with a higher price and the price you get for each subsequent unit get less and less as the order is being executed. If this variation in the price was due to sourcing out the required DC from various sellers with different prices, there would be an argument of this being acceptable, in that case, under Shariah rules. However, that is not the case here and it is the buyer/seller bidding against itself within the same transaction driving the principle of demand and supply as the transaction progresses to completion.

The second aspect that I would like also to highlight is regarding the fee charged in relation to the execution of a DC market order transaction. While the fee is fixed at say 1%, the amount deducted would be different based on the value of the currency at the time of execution and how this value changes from less to higher gradually in the same transaction if you are buying, and from higher value to less value if you are selling, as I explained above. Therefore, while the fee charged is a fixed percentage, the amount paid as a fee for DC unites in a single transaction would be different based on how the value of the DC being bought or sold changes in the same transaction.

Both aspects that I explained above regarding the DC transactions and fees are not acceptable from a Shariah rules perspective regarding money exchange transactions, if we consider DC as money. This would also be a contentious transaction if we consider DC as a commodity rather than money from an Islamic perspective, this is because of the high level of uncertainty (*gharar*) and ambiguity (*jahalah*) involved in such transactions. This uncertainty would render the transaction legally invalid under Shariah rules as I am going to explain further in the coming sections.

One may argue that DCs are now a customary practice *('urf),* which are accepted by their users as money and a medium of exchange. I would reply to that by saying when the customary practice is not initiated under a legitimate legal umbrella that approves it and considers its impact on society and the economy by relevant authorities, this customary practice then under Shariah has no bearing or legitimacy according to the principles of jurisprudence (*usoul al-fiqh*) in the Islamic law. It is also known that to buy DCs with paper money, a person must buy first one of the major DCs to get access to the rest, currently, they are four Bitcoin, Bitcoin Cash, Ethereum and Litecoin. Then, after buying one of those major currencies a person would have access to purchase, with one or more of those four currencies, other less known DCs, which stood at the time of writing this book at 1629 Cryptocurrencies. Thus, DCs are more like a token that you buy with money in order to go on a ride in, e.g. a theme park. However, the only difference is that this token has a platform where it can be traded for more or less its original value. It is similar to buying a ticket for a well-sought-after concert or band when they become first available for consumers, but your intention is to buy some now at a normal price and when all tickets are sold, you will try to sell them twice or more their original value because of scarcity to make profit. Going back to the example of a theme park token, such circulation of that token or the concert tickets and being acceptable by a group of

participants do not make them money. Hence, DCs in all its types are not money like paper money that we use today in all its forms and types.

Well, you would be wondering now if I am saying DCs are not Islamically considered money, what are they then? I will tell you the answer in this section. I already established that DCs are not money, however, they have some sort of value (*maal*) as recognised in the Islamic jurisprudence and economic thought. This means it is more like a commodity and trading in commodities are subject to the Shariah rules that apply to sales contracts. With that respect, I will focus the discussion on the object of a sale contract (in our case here is DCs) and to a much lesser extent the price.

The 'object of sale' and price for the majority of Hanafi scholars are antonymous expressions that denote many meanings. In the most common usage, the object of a sale becomes uniquely identified by specification, while the price is most often not uniquely identified by the specification in a contract. The same applies to animals and food whose characteristics and descriptions are related to their valid usage. Such objects become identifiable because they have different usage for different people. This is the general Shariah rule for those two aspects of a sale contract. But, this rule can change under specific circumstances, e.g. items that cannot be uniquely identified may become objects of sale, such as those in a forward sale, and items that can be uniquely identified can become a price, such as the price in such forward contract, if it is an uniquely identifiable object. As a result, the price is considered a debt or a liability. Typically, specified generally as a quantity of fungible goods, such as money, wheat, oil and other items that can be weighed or measured in volume, length or number. The price may also be non-fungible, such as an animal, specific clothes etc. for example of a quantity of sugar is forward-sold for a non-fungible price, the object of sale is fungible, and the price is not (Al-Kasani 1910; Al-Kafwi 1982; Al-Sarkhasi 1973).

Imam al-Shafi'i and Zufar said that 'object of sale' and 'price' are synonyms, which may describe the same object and the distinction between the two depends on which is designated by the position "for" in "I sold you ... for ...". Islamic jurists agree in general that there are certain conditions regarding the object and price in a sale contract for the conclusion of such contract, those are discussed below (Al-Juwaini 2007; Al-Ghazali 1997; Al-Qazwini 1999; Habannaka 1988).

(a) The object of sale is a commodity of value with legitimate uses, this condition does not apply to the price. So, applying this condition to DCs suggests that they are of value, however, the legitimate usage of DCs is questionable. Some Shariah scholars who rule DCs as not permissible quote that it can be used for money laundering and terrorist financing, or to demise the legitimate currencies of various countries. If this claim is not substantiated, then DCs would meet this Shariah condition.
(b) The object of a sale should be in the possession of the seller, the same condition does not apply to the price. When DCs are sold they are owned by their users in their DC wallet that is saved digitally on their computer or on a flash memory/ portable drive.

(c) The cost of the delivery of the object is borne by the seller, and the cost of the delivery of the price is borne by the buyer. This condition is also met in a DC trade.
(d) The price should be named for a sale to be valid. Whereas, not naming the object of sale would render the contract void and non-concluded. This might be an issue of concern with DCs trades due to its volatility and severe fluctuation, the quantity cannot be accurately decided at the time of execution of the sale as discussed above. There might be differences in the units assumed and actual units delivered, which involves major uncertainty.
(e) The buyer of a movable object of sale may not re-sell it before receiving it. This condition is also usually met in DCs trades, as users would be only able to sell the DC after it is delivered to their wallet.
(f) The object of the sale should exist at the time of the contract. Thus, the DC traded should exist rather than being mined or in the process of mining where various programming formulas and puzzles are being solved.
(g) The object of the sale should be also deliverable to the buyer at the time of sale if the object of the sale is owned by the seller, but cannot be delivered to the buyer for any reason, the sale is nullified. The same applies to DCs.
(h) The object of a sale contract should be free of any major uncertainty (*gharar*), which is called in the Islamic jurisprudence the sale of unknown, or ignorance (*jahalah*) which constitute asymmetry of information regarding any element of the sale contract. While minor uncertainty and ignorance are tolerated in financial transactions according to what is known to be acceptable, Islamic jurists agreed that major uncertainty and ignorance in a sale contract will render it invalid. This applies whether uncertainty and ignorance pertain to the object of sale or to the price. This should be observed in DCs transactions as there are various forms of it, some of which would have either or both elements. Minor uncertainty and ignorance may be classified into three categories: (I) substantial and unanimously prohibited (e.g. selling birds in the sky), (II) minor and unanimously allowed (e.g. the state of the foundation of a sold house, or the cotton lining of an overcoat), and (III) intermediate with differing opinions. The Hanafi school allowed all sales with minor uncertainty, such as the sale of nuts, watermelon, wheat and rice in their shells conditional on giving the buyer the option of inspection. The Maliki and Hanbali schools permitted all sales containing minor uncertainty and those that are deemed necessities. The Shafi'i school, on the other hand, allowed the sale of such items in their inner peals. They have two opposite opinions on their sales in the outer shells. Al-Nawawi, al-Baghawi and al-Shirazi from the Shafi'i jurists ruled that sales in the outer shells is not valid. Imam al-Harameen and al-Ghazali, on the other hand, ruled that it is valid based on the agreement on such practices in all countries (Al-Zuhaili 2003). Thus, these aspects i.e. *gharar* and *jahala* are very important to be considered when trading in DCs and using them to buy different items. Any process or trade that contradict these two aspects would render such transaction or trade invalid.

Thus, this chapter provides an important contribution to existing literature regarding the theory of money and its function. It analyses and discusses in-depth the concept of money in Islamic economics and jurisprudence in a manner has not been explored before. It concludes that paper money is one genus under Shariah with different types and forms. The chapter then extends the discussion to clarify the impact of the argument provided regarding the concept of paper money on currency trading. By doing that it addresses the new phenomenon of digital currencies in order to answer the unanswered question about how DCs fit within the concept of money from an Islamic finance perspective. This is important as the correct treatment of such transactions would have serious implications in their accounting treatment on the balance sheet and accounting reporting and disclosures in the Islamic finance market. Moreover, this chapter contributes further to the accounting and auditing literature of religious financial institutions as IFIs are subject to religious rules that apply to their operations. As such, all their transactions and trades in currencies and foreign currency exposure hedging in the financial market are impacted, and would be subject to the discussion and the conclusion reached here. This discussion should be incorporated in their accounting and auditing procedures and reporting for such transactions.

3.6 Conclusion

The important factor to determine the difference between homogeneous and heterogeneous objects is natural characteristics and substance, rather than its temporary emerging symptoms. The unity of all types of gold as a single genus is due to its substance. Thus, any variations to its types or its value will not change its substance or its nature as a single genus.

We also discussed in this chapter that gold as the original form of currency and monetary value, despite the variations in its quality to different carats and its various forms as coins, jewellery, alloyed or cutleries etc., which may introduce gold in different types and forms that are traded at different values, but this does not negate the unity of its kind as a single genus. This is an acknowledged fact in the Islamic jurisprudence that is not specific to gold only. It also applies to silver and any other materials or items that carry a monetary value. Although the monetary value is the reason for it to be classed as a usurious item that is subject to certain restrictions under Shariah rules, this reason is not relevant to the argument of the unity of its genus as one single genus or multi-genera. As well as the constant diversity of its types and forms. Therefore, if another expensive metal, such as platinum takes over as a precious metal with a monetary value replacing gold, then all the rules and issues I discussed above would fully apply to platinum.

The policy implications of the discussion presented in this chapter are important due to its impact on financial transactions undertaken by Islamic financial institutions (IFIs), and also in relation to their trading in gold by offering gold investment products. This also would impact foreign currencies exchange services offered by

IFIs and hedging transactions against currency exchange exposure in the financial market. In that respect, IFIs use an agreement called Shariah compliant currency purchase forward agreement for hedging currency exposure. This agreement is used between two IFIs and is based on executing two spot foreign exchange transactions for the same two counter values. The two transactions are linked by undertaking (*wa'ed*), which is a unilateral promise to execute the far leg (second) transaction to net-off the financial position between the two parties.

I have also discussed the possible position from an Islamic economics and jurisprudence regarding digital currencies and its treatment. This position about DCs was based on the earlier discussion regarding paper money and how Islamic jurists view it. I have analysed the various positions and usage of digital currencies, its function as money and whether it has a value under Shariah. The conclusion I reached here is that digital currencies are not money, it rather acts like a token representing the value of that token only. It could be characterised as an item that has a value, but it is not money and its value highly fluctuates according to market conditions. Therefore, it would be subject to all conditions that apply to the object of a sale contract. Failure to meet such conditions, would render the transaction or trade invalid from a Shariah perspective.

The policy implications of this aspect regarding DCs would be pivotal for the Islamic finance industry and its institutions from a currency trading perspective, and how they view digital currencies. The correct treatment of such transactions would be reflected in their accounting treatment on the balance sheet and accounting reporting and disclosures. Furthermore, as IFIs are subject to religious rules that apply to the commercial law, they can only operate within that religious framework. As such, the foreign currencies hedging agreement that I briefly explained above, and other currency exchange services and transactions, including digital currencies trading, are subject to such religious rules and the implications of the discussion I presented above in this chapter. The controls of following this religious guidance and rules is covered by a religious audit review undertaken regularly in IFIs by experts in the Islamic commercial law. This audit and accountability review is part of the governance framework of all IFIs that they have to comply with. Non-compliance with such Shariah requirements by IFIs would invalidate such transactions and would financially impact the institution. This is not to mention possible major reputational risk, as the Shariah compliance audit report would state that the institution was not compliant with Shariah in such aspects of the business. This final audit report is usually published in the annual financial accounts of the IFI that are made public. Hence, the correct understanding and implementation of the issues I discussed above is of a paramount importance for the operations of IFIs and maintaining their religious compliance and integrity.

You probably by now thinking how all these theories and concepts about money, its nature and function in the Islamic economic system is incorporated in today's Islamic finance and is there an Islamic accounting? Well, hold that thought as I address the origins of Islamic accounting, its fundamentals and characteristics in the next chapter.

Chapter 4
The Origins of Accounting in the Islamic Economics and Finance System

4.1 Introduction

We concluded in the previous chapter (Chap. 3) that gold as the original form of currency and monetary value is a single genus from an Islamic jurisprudence point of view. This is despite the variations in its quality to different carats and its various forms that are traded at different values, which does not have any bearing in relation to the unity of its kind as a single genus. This also applies to silver and any other materials or items that carry a monetary value, such as paper money. Although the monetary value is the reason for it to be classed as a usurious item that is subject to certain restrictions under Shariah rules, this reason is not relevant to the argument of the unity of its genus as one single genus or multi-genera money.

This chapter, however, discusses the concept of accounting system and its objectives as outlined in the Islamic economics and finance system under the Islamic rule from its inception over 14 centuries ago. It examines the historical development that the accounting system underwent within the framework of Islamic economics and finance. It explains the most important types of accountancy, accounting terminology, accounting practices, accounting roles and internal controls that were known in the Islamic economics and finance system at that time. It further analytically examines the components of the accounting system in the Islamic rule in terms of the principles, basis and foundational structure of this accounting system. This chapter also analyses the origins of the accounting system within the economics and finance framework under the Islamic system.

The study of Islamic history in general and its key aspects, such as the financial and accounting system, in particular, is very important. The study of the history of Islamic accounting shows us the role played by the accounting system in organising the finances within the state and the various methodologies used in practice at that time, which may be considered, in some respects, more developed in comparison to the field of accounting nowadays. Therefore, this subject is worth being explored

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_4

further to draw on any similarities with the modern accounting methods and examining any challenges.

The key difference between the Islamic accounting system and other accounting systems is the role of religious rules and principles that provide the framework for the Islamic accounting system. This system is based on the policies and methods that govern its operation and is concerned with the accounting of financial rights and liabilities or obligations within the framework of Shariah rules related to financial transactions. Thus, the Shariah rules that the Islamic accounting system is based on could be divided into two types from an Islamic jurisprudence perspective:

1. Shariah rules related to worship (*Fiqh Al I'badat*), which govern the relationship between man and God, such as prayers, fasting and the Zakat (the payment of obligatory alums). This type is known as being constant and fixed as prescribed in the Quaràn and Sunnah of prophet Muhammad (pbuh). E.g. the number of prayers during the day or the percentage of Zakat due on someone's wealth of 2.5% p.a will not change regardless of time or place.
2. Shariah rules related to financial transactions (*Fiqh Al Mu'amalat*), which govern economic, finance and financial matters and its compliance with Shariah. Unlike the first type i.e. Shariah rules related to worship, this type of Shariah rules is plastic in nature that may change and evolve over time according to social development and requirements. For example, a sale contract nowadays is different to a sale contract used in the early days of Islam, even the methods of exchanging the counter values of a sale agreement have evolved to online trading and electronic transfer of sale price etc. These changes required new Shariah considerations and rules to meet modern financial needs without compromising Shariah principles and its requirements. As a result, this also has led to the development of financial accounting principles in relation to the evolved or new Islamic contracts and their accounting treatments.

Hence, the Islamic accounting system has evolved since its early start at the time of prophet Muhammad (pbuh) throughout to the time of the four Caliphs, the Umayyad era, Abbasid rule, Ayyobid State, then Othman Empire up to the modern days. This evolution of the Islamic accounting system was both in the concept and the objective due to arising financial needs, which could be summarised as follows (Yahya 2013):

(a) The need of a Muslim to fulfil her/his religious obligations relating to one of the pillars of Islam, Zakat. A Muslim is required to conduct a simple accounting calculation every year to ascertain her/his zakatable assets or wealth and then calculate the zakat due on this wealth and pay it to the deserving poor and needy categories as detailed in Shariah. The zakat level and method of payment would differ according to the type of asset owned by an individual. For example, the zakat of livestock is different from the zakat of real estate assets or commercial goods, which is prescribed in the Islamic jurisprudence.
(b) The need for the state to conduct its accounting calculation in relation to its assets in *bait al maal* (the state treasury) and account for its rights in terms of

> taxes and obligations in relation to monetary outflows. Therefore, some classical scholars, such as Al Qalqashandi stated that the science of accounting is a development of the science of mathematics, which deal with mathematical calculations from one side or party, while accounting refers to accounting or mathematical calculations between two parties or two sides (Al-Qalqashandi 1963).

Al Qalqashandi further explained that accounting is the record of financial inflows and outflows in its various accounting categories, including auditing processes (Al-Qalqashandi 1963). Thus, according to this view the term accountancy is derived from the science of mathematics and learning these sciences is encouraged in Islam "He it is Who appointed the sun a splendour and the moon a light, and measured for it stages, that ye might *know the number of the years, and the reckoning*. Allah created not (all) that save in truth. He detaileth the revelations for people who have knowledge." [Quràn, 10: 5].

The underlined wording in this verse is a translation of the Arabic word (*al Hisaab*), which means in Arabic maths or the science of mathematics. Muslims are encouraged in this verse to learn this science, as those who are learned they would be able to see and understand the signs of God. Also, the reference in this verse to knowing the number of years is in relation to the lunar calendar that is used to calculate the Zakat due in someone's wealth every year, so each Muslim can do their individual accounting requirements.

4.2 Evolution of Accounting Systems and Its Types in Islamic Economics and Finance

It can be said that the beginning of the development of the accounting systems in the Islamic rule was due to the process of organizing the collection of funds from various sources and then to disburse them in its various expenses, and also the control over those processes.

The organization of collection and disbursement of funds at the beginning of the Islamic rule dates back to Prophet Muhammad (pbuh), where the state was newly established, small in size, with few inhabitants. Its administrative organization was very simple, and its financial resources were limited to the spoils taken during the battles fought by the Muslims against idols-worshippers (Al-Jaleel 2001). But money, at that time, was kept in the house of Prophet Muhammad and the financial resources were distributed to those who deserved it in the same day, or the next day. Particularly, if the spoils were livestock, such as camels, sheep and horses (Attieh 1982: 32). When the state expanded, Prophet Muhammad sent his workers to various regions to collect Zakat and tribute, which represented the key two sources of money at that time (Yahya and Ayoub 1995).

Thus, the situation remained the same as that of the Caliph Abu Bakr al-Siddiq (ra) because the conditions of the state did not change during the period of his rule.

However, during the time of the caliph Umar ibn al-Khattab (ra), and because of the increase in Islamic conquests, the state expanded to other regions. This led to the diversity of state population in terms of races and religions, which led, as a consequence, to an increase in funds received from the Islamic territories. Therefore, it was necessary to increase the administrative regulations as required to oversee the conditions and money of Muslims across the state (Abdul Salam 1980).

Therefore, creating the need to codify the state treasury (*bait al maal*) for the conservation and maintenance of the state finances. The *bait al maal* was similar to the Ministry of Finance (Treasury) at the present time. The *bait al maal* has been established in the form of legal entities (*dawaween*), and each one was called a *diwan*. The *Diwan of Al-Kharaj* e.g. was established to organise the income of *bait al maal* and what is required to pay for each Muslim. Also, another *diwan* was established called *Diwan Al 'Ataà* to pay and compensate the fighters (the soldiers), then a *diwan* was established in each state (*wilayah*) until the state treasury structure was complete (Attieh 1984). The two caliphs Osman bin Affan (ra) and Ali bin Abi Talib (ra) who ruled respectively followed the same path in that framework.

In the era of the Umayyad state under the reign of Caliph 'Abd al-Malik ibn Marwan, the *dawaweens* were Arabized. They were written in Farsi (Persian) in Iraq and the rest of Persia, including the *Diwan* of the *Kharaj* and the *Diwan Al 'Ataà*. The purpose of making all *dawaweens* in Arabic was to control these departments and supervise them carefully to prevent fraud and forgery (Yahya 2013).

In the era of the Abbasid state, Abu Jaafar al-Mansur transferred the *bait al maal* and the *dawaweens* from Kufa to Baghdad in Iraq. In the era of the caliph al-Mahdi, he established the *Diwan* of the *Zimam* (an audit department) and it was managed by Omar ibn Yazigh, with the remits and responsibility of supervising and auditing all other *dawaweens* in the country (Attieh 1983). It is noted that up to that point the organization of the money and control was done through the *bait al maal* in its simple structure when it was established at the time of Prophet Muhammad (pbuh). Until it became a large *diwan* that branched out to several offices, each of which specializes in a specific function in the following covenants.

As for the process of regulating the procedures for measuring money and monitoring how it is collected and disbursed, it can be said that this was done through the process of keeping special accounting books and recording them in accordance with Islamic accounting principles. Taking into account what is consistent with the provisions of Islamic law. During the era of the Islamic rule when the need arose to control and organize money that was posted into the *bait al maal*, but this was not recorded in a formal document until about 765 AH/1363 CE, where a book was found entitled "*Resalah Falakiyah Kitab al Siyaqat*" (an astronomical letter of contexts) (Mustafa 1970), for the author al Muslim Abdullah bin Mohammed Kaya Almazandrani.

The book is written in Arabic with the use of the Persian language as well as some of the Turkish words that were prevalent under the Ottoman Empire. This book can be found in Sultan Suliman the Magnificent library in Istanbul, Turkey, in the manuscripts section of the library, under number 2756. This book is a guide to the accountancy and accounting systems in the Islamic rule. The book of Almazandrani was written about 131 years before the publication of the book by Basilio in (1494

CE), which Western scholars claim is the first book to be written on the method of double enrolment. This is because they perhaps did not read the book of Almazandrani, or because they did not try to see what is happening in the Islamic world at that time, or lack of knowledge of the Arabic language due to the lack of translations. In addition to that, the book of Almazandrani remained a manuscript and was not printed and published commercially, unlike the case with the book of Basilio (Yahya 2013).

It should be noted that there are Muslim scholars who preceded Almazandrani in laying down the foundations of the accounting system, where Almazandrani explains in his book that there are books, and he may mean by that manuscripts, explaining the accounting applications that prevailed at the time and before the writing of his book, "an astronomical letter of contexts". Almazandrani says that he personally had benefited from those books in writing this book, where he explained in his book the following (Yahya 2013):

(a) The accounting systems that prevailed at the time and the recording procedures for each accounting method.
(b) Types of accounting books to be used to record and evidence financial transactions.
(c) How to address the deficit and surplus, including any adjustments.

According to Almazandrani, the accounting systems that prevailed at the time, i.e. in 765 AH (1363 CE) are:

- Accounting for stables.
- Construction accounting.
- Accounting of rice cultivation.
- Warehouse Accounting.
- Accounting of currency instrument and coinage.
- Accounting of sheep breeding.
- Treasury accounting.

4.3 Components of the Accounting System in Islamic Economics and Finance

The components of the accounting system are, in general, related to:

(a) Components of the human and material system that can be composed and is working with each other in order to achieve the goal or objectives of the system.
(b) The collection of documents, records and financial lists through which the procedures for recording financial events are organized, tabulated, analysed, summarized and presented in an understandable manner that can be used by many parties in the decision-making.

(c) Control the conduct of accounting procedures in each of its components in order to ensure its correctness, accuracy and evaluation.

The process of judging the efficiency and effectiveness of the accounting system, according to contemporary concepts, is based on and subject to the extent of taking into account the set of components above.

If we try to study the components of the accounting system in the Islamic context, we will note that all the components described above, which include the set of parts components and elements necessary for the accounting system, were already present and have gradually evolved by the evolution of the needs through different stages of time experienced by the Muslim state, which can be illustrated below.

4.3.1 Components of the Accounting System

The accounting system in the Islamic rule consists of the physical and human factors, which can be clarified as follows:

4.3.1.1 Physical Factors

It relates to all the requirements of the accounting system with its various procedures in order to achieve its goal of measuring the money from revenues and expenses as well as control.

The bureau or *Diwan* of *bait al maal* is the main pillar within the material factors of the practice of accounting in the Islamic system, from its simple appearance at the time of the Prophet (pbuh), until its gradual integration during the reign of Caliph Umar Ibn Al Khattab (ra) and in the time of the Umayyad, Abbasid and Ayyubid states (Yahya 2013).

The word *Al Diwan* is Persian which means the record or book, it is also a metaphor for the place where they are kept. Al-Mawardi defines *Al Diwan* as a 'subject for preserving what is related to the Sultanate's rights of business and money, and it is based on the armies and workers' (Al-Qalqashandi 1963). It includes in our contemporary terms the work of the ministry of finance in the supervision of the public budget, revenues and expenses and their work and representatives in the fulfilment of the different types of taxes, fees and excise. In addition to the work of the departments of the *Mira*, i.e., blogging and accounts at the ministry of defence (Al-Hasab 1984). Thus, the bureau or *Diwan* of *bait al maal* was the place where financial relations between the state and its citizens were organized (Al-Qalqashandi 1963) by dividing it into different *diwans* or departments, such as (Abdul Rasoul 1980):

- *bait al maal* for charity and land reparation and what is taken by the *Wali* (regional ruler) from Muslim traders.
- *bait al maal* in relation to family and abscess (abscess per head).

- *bait al maal* for spoils and ore.
- *bait al maal* for the abandoned assets (money without identified owner).

Registering the data in the *diwans* of the different states and regions was done using their own local languages, i.e., recording of this data in different languages, and then the method of recording the entries in Arabic was made the standard in the Umayyad era.

4.3.1.2 Human Components

This component relates to all individuals who perform accounting work in accordance within a set of terms of reference.

In the time of the Islamic rule there were many individuals who work in the *bait al maal* within the various accounting and financial functions, and the most important names that these individuals were called by are:

- The controller (*Sahib*) of *bait al maal*, the holder of this title represents the highest financial authority, and since the *bait al maal* is represented at the present time by the ministry of finance. The controller (*Sahib*) of *bait al maal* in the Islamic rule is equal to the minister of finance at present, and can be exercised by persons authorized by the controller of *bait al maal*. For example, there was the controller of *bait al maal* for cash, the controller of *bait al maal* for livestock and the controller of *bait al maal* for fruits and crops and so on.
- The beholder (*al-Nazir*), is the person entrusted with the money, to him all accounts of *bait al maal* are raised, which corresponds to the financial manager or account manager at present.
- The witness (*al-Shahed*), is the person who checks and reviews the work of the *bait al maal* and its employees, it is equal to the auditor at present.
- The *mustawfi,* is the person who sends financial statements and receipts of the other regions and any issued financial instructions. He also draws attention to the financial statements received by him which are in violation of the applicable laws, and conducts an examination of financial accounts and its compliance. This is equal to the role of financial controller, or the function of financial control in our present time.
- The worker (*al 'aamel*), a person who writes and organises the accounts, which is equal to the role of an accountant at present, and there is a worker for Zakat and another for alms . . . and so on.
- *Al-Sirafi*, a person who receives or disburses money in accordance with the instructions issued to him, this role is equivalent to the role of a treasurer at present.
- *Al-Kharis*, a person who estimates the money between two parties, which is known nowadays as the valuer.

Fig. 4.1 Elements of the accounting system in Islamic economics and finance

4.3.2 Elements of the Accounting System in Islamic Economics and Finance

The elements of the accounting system are the basis for documenting the requirements and procedures of this system, starting from the recording process and then tabulation, summarization and presentation, through the necessity and availability of the documentary collection, the book collection, the manual of accounts, the set of reports and financial statements. Through the historical study of the reality of the accounting system in the Islamic state, it is possible to note the existence of the above elements as depicted in Fig. 4.1, which can be explained in the sections that follow.

4.3.2.1 Documentary Collection

The presence of documents represents the gate way in the work of the accounting system. In that it represents the important basis in providing the data necessary for the operation of the system. The documents occupy an important position in Islam as

a proof of what can be done between two parties, especially with regard to money, and can be inferred through the following verses from the Quràn:

> O ye who believe! When ye contract a debt for a fixed term, record it in writing. Let a scribe record it in writing between you in (terms of) equity. No scribe should refuse to write as Allah hath taught him, so let him write, and let him who incur the debt dictate, and let him observe his duty to Allah his Lord, and diminish naught thereof (Quràn, Al Baqara, 2: 282).

> And We appoint the night and the day two portents. Then We make dark the portent of the night, and We make the portent of the day sight-giving, that ye may seek bounty from your Lord, and that ye may know the computation of the years, and the reckoning; and everything have We expounded with a clear expounding. And every man's augury have We fastened to his own neck, and We shall bring forth for him on the Day of Resurrection a book which he will find wide open. (Quràn, Al-Isrà, 17: 12 and 13).

It is noted through the previous verses that there is an emphasis on the need to document rights, including financial rights, both debtor and creditor, through written clear statements so there is no doubt.

As for the work of the accounting system in the Islamic rule, the documents were known through two main types:

- The Internal Document (for internal purposes), which is called the "witness" and is edited by the account clerk for revenue collected from others, and it should contain basic data including: date of issue, amount, place of issue, the witness of the transaction, the signature and the reasons for the payment (Lashin 1977: 62). The witness consists of a number of copies that the accountant retains original copies of it (Al-Nuwairi 1998: 274). The original record or copy was called a "model" and the evidence is recorded in the accounting books, that could be other documents, such as the receipt of possession or transfer. Thus, the witness is a document of registration and recording such legal rights. The accountant, then, prepares the witness and get it certified by the Chairman of the *Diwan*, the Minister or his Deputy who would write the word *Yaktub* (write) as an indication of this certification or approval process. Once the witness has been authenticated, the accountant will record the marks in the books from the sites of the witness. The accountant would keep the witness and remain in his custody as evidence of the authorization of the Chairman of the *Diwan*, then the Minister or his deputy is to ratify the financial transaction in the books of accounting (Zaid 1995: 46–7).
- The External Document (for external purposes), which is called *al-Baraà* "the patent", and is released by the owner or the stock-keeper (*al-Jahbaz* or *al-Khazen*), which represents the payment receipt received by the payment of the amount of pasture, tax imposed, the payment of abscess, charity or the tribute (Al-Nuwairi 1998: 275).

The modern era has shown the usefulness of writing financial contracts in order to inform the parties to the contract, their heirs or any person affected by this relationship in present and future, their rights and duties. This is because with the passage of time such rights and obligations get lost and forgotten. As well as the benefit of written contracts in providing accounting data that result in accounting processes during the contract period. Islamic jurisprudence has preceded in formalising these

principles for centuries, long before what is known as a common practice nowadays (Al-Jaleel 2001).

4.3.2.2 Accounting Book

The accounting books were first known in the era of the Caliph Umar ibn al-Khattab because of the increase in the money received by *Beit al-Mal*. He ordered the recording of public funds according to their sources. The accounting books were not as they are known today, where the accounting books and records were unbound until the era of Caliph Al-Waleed ibn Abdulmalik during the period of 86–96 AH (706–715 CE) (Abdul Wahab 1984). The organizational aspect of these accounting books reached its peak of organization during the Abbasid state between 132 and 232 AH (749–847 CE). In 132 AH (749 CE) Khalid Bin Barmak was appointed as the head of the Diwan Al-Kharaj (the revenue bureau of agricultural products and the *Diwan* of soldiers). Khalid Bin Barmak reorganized these two *diwans*, developed accounting books and defined them by distinctive names (Al-Saleh 1987).

The first book of entry in the Islamic accounting system was known as the "*Jareedah*", which means journal in about 132 AH (749 CE), before the appearance of the book of Basilio in 1494 CE. This means that Basilio used the Arabic term "*Jareedah*" (Journal) in English or *Zornal* in Italian, which is a literal translation of the Arabic word (*Jareedah*) (Al-Saleh 1987).

The most important accounting books that were used in the Islamic accounting system (especially in the time of the Abbasid state) can be identified in terms of their nature and associated functions as follows (Al-Jaleel 2001):

- The *Jareedah*, the book of income and expenditure, where it was used to record the income and expenses individually, which means that there was a journal for income and another for expenses.
- *Ta'leeq al-Yawmiyyah* (daily Journal or daily commentary), which is used to record all other transactions (except income and expenses) that occur daily and lists the date of the day and month of the calendar year.
- *Al-Makhzoumiya*, a kind of notebooks that its papers are bound together by a thread (which is similar to files currently), and specializes in a type of accounts, such as cash or grain (it is similar to the cash book now).
- *Al-Uorag*, a notebook used to record the rights and obligations of an individual to another in their contractual terms, and serve as a proof of any outstanding payment instalments, and so it is similar to the book of debtors currently.
- *Al-Roznameg* (the calendar or program), a notebook to record the amounts of abscess on agricultural land, where it was allocated one page per person who is responsible for payment of abscess to record the amount of abscess to be paid. Also, the amounts that were paid out of the total amount due, the amount of abscess used to be determined under a law called abscess law (*Qanoon al Kharaaj*).

- *Dafter al-Nafaqaat* (the book of expenses), a book that is dedicated to recording the expenses of the Caliph, which represents the expenses of the state, and was held in the Office (*Diwan*) of Expenditures.
- *Dafter al-Amwal al-Musaadarah* (the book of confiscated funds), a book dealing with the management of confiscated funds from ministers and senior officials of the state at that time, and was used in the *Diwan* of Confiscation.
- *Al Jareeda al Sudaà*, (the black accounting journal (military)), a book that was dedicated to capturing everything related to the army, including the amounts of their expenses, their reparations and salaries. The reason perhaps behind the name, black accounting journal was due to the confidentiality of this record as it could be only seen by authorised persons to ensure the conditions of the army are not disclosed to others.
- *Al-Fahrast* (index), a record of the names of the above books/records and the nature of the work done.

4.3.2.3 Directory of Accounts

The current accounting guide represents a list of accounts that can be used to record financial transactions in the accounting books, and records collection. To facilitate the use of this method, numbers may be given to each account in addition to the possibility of using automated and electronic means.

It can be said that the accounting manual was known in the Islamic accounting system in the past, in terms of the use of a set of concepts and terms in the performance of accounting work by individuals practicing this work (accountants). Where the accounting work was conducted in a scientific manner and did not leave individuals to record accounts according to their own interpretations. There were specific rules and concepts for accounting records that accounting clerks had to adhere to. This did not stop by setting only the definition of general concepts and principles, but each accounting section and department had a set of specific concepts and rules of its own.

Examples of terms used in the Islamic accounting system in the past, which are familiar to today's accountants, are:

- *Al Salaf* (advances), which is money given to the beneficiaries before their entitlement to it.
- *Al Muqassah* (set-off), which means retrieving (deducting) money owed to people who have already committed advances to them, so offsetting their financial liabilities against amounts due to them.
- *Al Mustakhraj* (extracted), which includes all cash income.
- *Al Hasel* (the balance), the remaining balance from the last accounting period.
- *Al Jam' al-Wasel* (calculating the net balance), which means the net of the sum of funds that were received, after discounting any damage as a result of disasters, from what is originally due.

- *Hawasil Ma'doomah* (the non-existent), the money stolen from the *Diwan* (and cannot be recorded in the accounting record until after the issuance of a decree in relation to it).
- *Al Ràeh mina al Maal*, collectible debt.
- *Al Munkasir mina al Maal*, bad debts that are impossible to collect or recover.
- *Al Muta'azer, Al Mutahyyer* and *Al Muta'aqqed mina al Maal,* any difficult and complex money to collect, doubtful debts (Tarabzouni 1984).

4.3.2.4 Reports and Financial Statements

After recording financial events in the books, a set of reports and lists containing the summary of the recording processes are usually prepared.

Since there were no large economic projects in the Islamic rule in the sense known nowadays, the greatest concern was the financial aspects of the state's revenues and expenses. This means that the accounting at the time was government accounting, which deals with how to obtain public funds, determining ways of allocation and distribution of them to the general public and services. Therefore, government accounting has been known since the beginning of the Islamic rule, especially after the emergence of the idea of *bait al maal* in the era of the Prophet (pbuh). At that time, the financial and non-financial resources that entered the *bait al maal* were accounted for, and then distributed to its beneficiaries at the same time or after a few days.

The concept of *bait al maal* was developed under the reign of Caliph Umar ibn al-Khattab, where the resources of *bait al maal* increased as a result of successful conquests as well as new multiple income that represented the financial resources of the state. These resources include abscess, tribute, zakat, booty, tithes, funds that do not have beneficiaries or identified owners, funds paid by other nations as part of a peace treaty settlement and extracted treasures from the ground that belong to the state. While the expenses through which the money was spent include expenses in relation to preserving and printing the Holy Quran, salaries of soldiers, salaries of workers in the state offices as well as in the areas of public services, such as rivers and repair of sewages and drainage and the expenses to meet the needs of the army . . . etc.

As a result of the expansion of the Muslim state, the budget of each period was considered to be a periodic report on the status of *dawaween* in the various states. The balance between the expenditures and revenues of each region or city was verified and the surplus was shown in each period (Al-Hasab 1984).

The reports and financial statements were prepared according to several names and objectives, the most important of which are mentioned below (Al-Saleh 1987).

- *Al Khitma*, is a monthly financial report, which is prepared at the end of each month and contains the revenues and expenses classified according to their type with the balance remaining at the end of each month. This report is similar to what is known today in the name of cashflow statement.

- *Al Khitma al Jami'a,* is a report prepared by the accountant and presented to his supervisor. If this report is accepted by the supervisor, it is called *al-Muwafaqa* (approval). If it is not accepted due to discrepancies or inaccuracy in the data it contains, it is called *Muhasaba* (accounting) only.
- *Al Tawaali* (Grain yield report), It is a report about the agricultural crops in each season, which shows the amount, the source and the balance according to their type for each agricultural period.
- *'Amal al-Mabe'aat* (Sales Report), this report shows the quantity, price, sales value and balance in quantity and value at the end of each specific period.
- *'Amal al-Mushtarayat* (Procurement Report), It shows the amount and the price of the purchases and its expenses at the end of each specific period.
- *Al Irtifa'* (Balance Sheet), is the financial position for the *Hijri* year from the first of *Muharram* (first month of the Islamic calendar) to the end of *Dhu'l-Hijjah* (last month of the Islamic calendar). It shows the assets and liabilities and the difference between the income and expenses. It is prepared with estimated figures for the coming year, and the second section shows the actual results after the end of the year including notes explaining the differences in the final accounts.

4.4 Accounting, Internal Control and Audit in the Faith-Based System

Internal control is an important element of the accounting system. The accounting work is monitored according to the other elements (inputs of the documentary group, the operations in the book collection, the outputs of the group of reports and lists), and the term feedback is referred to as a component of the accounting system.

The internal control in the implementation of its tasks depends on a set of elements that include: a good organizational plan, a well-established accounting system and a qualified group of individuals. I will explain each of these components and the extent of its adoption at the time of the Islamic rule as follows:

4.4.1 Good Organizational Plan

A good organizational plan is an important foundation in determining lines of authority, responsibilities, lines of communication and coordination between the various administrative levels as set by it.

The Islamic rule has exercised its powers and responsibilities with great care in order to put the right person in the right place. The Prophet (pbuh) used forty-two writers and allocated the tasks and specialities among them and set out their terms of reference. There was those who are responsible for writing revelations from God,

others who record covenants and those who are responsible for recording financial matters (accountants).

The Caliph Umar ibn al-Khattab (ra) is one of the first to know and apply the principle of division of labour and tasks allocation, before its adoption by the school of modern scientific administration. His interest in this principle was clearly shown in the plan addressed to all Muslims where he said: 'Whoever wanted to ask about the Quràn, you may direct your question to Ubai ibn Ka'eb, and whoever wanted to ask about the *fiqh*, let him come to Mu'az ibn Jabel, and whoever wanted to ask about money, let him come to me; for God has made me a stronghold and allocator', (Al-Bukhari 1985).

Moreover, the Islamic economics and finance system under the Islamic rule has been concerned with the administrative divisions of the current affairs. Where the financial position of the state is divided into three sections, each section has streams of income and another for expenses. Thus, it is not permissible to mix a section with the other, e.g. it is not allowed to mix the money from abscess with money from charity or zakat, or to spend the income of one category or allocation in the place of the other (Yahya and Ayoub 1995).

Regarding the accounting work, there was a specific description of it by dividing the work between a group of individuals, each of whom performs his/her own work and reports to his/her manager or superior. Thus, there were many positions and roles of accountants, such as the beholder, the witness, the employee, the worker, the cash handler, etc. (which has already been discussed in previous sections of this chapter, see Sect. 4.3.1).

4.4.2 The Hermetic Accounting System

The provisions of the accounting system in Islamic economics as practiced in the past can be judged by the availability of its components, which include the documentary group, the accounting records, the accounts manuals, set of financial reports and financial statements. I have noted previously that all of these elements were present within the work of the accounting system in the Islamic rule. The rigor and accuracy of the accounting and financial system at the time of the Islamic rule was due to the focus on accuracy of the accounting system, which was used and applied at that time.

The strength and robustness of the accounting system in the Islamic rule can be illustrated by the timely discovery of any deviations or deficits in the treasury of the state, and the possibility of immediately listing it and visualizing it automatically through the imbalance of the books. It was noticed that during the reign of Caliph Umar ibn al-Khattab, one of his appointed rulers called 'Amir ibn al-Jarrah informed him that there is a deficit of one *Dirham* (silver coin) *in Bait al-Maal*. That would only reflect the robustness and accuracy of the accounting system that was implemented at the time on one hand, and as an evidence of its effectiveness on the other. Almazandrani mentioned in his book in 765 AH (1363 CE) that the

internal control systems were of high significance and it was in place in all of the state offices and *dawaweens* (Yahya 2013).

In addition, it is possible to say that many of the principles and rules of accounting used at the time of the Islamic rule, which contributed greatly to increase the strength and robustness of the accounting system, have formed the foundations of many contemporary accounting principles, such as (Lashin 1977: 63) accounting period, objectivity, accounting consolidation and disclosure of data.

4.4.3 Qualified Individuals

An efficient accounting system of internal auditing requires the presence of qualified individuals working within its scope. Those individuals include both accountants who carry out the various accounting and financial tasks that they are required to record in the accounting books, as well as the auditors who audit and review the accounts of the accountants and controls in place.

In order to choose individuals qualified to perform these duties, Islam emphasizes the personal character of human being and the integration of the various elements in the work entrusted to the individual. In addition to what each person knows and her/his qualifications about what is assigned to them to ensure they are able to perform their duties as required from all aspects of personal, practical and scientific qualities (Zaid 1995). The Prophet (pbuh) confirms that by saying (whoever takes on the role of being the ruler of the Muslims or responsible for any of their affairs, and then appoints someone to do specific duties while he knows that there is someone else who is more qualified and is better for the Muslims than the appointed person, he has betrayed Allah and His Messenger) (Attieh 1984).

This concept was also stressed by Imam Ali (ra) when he informed al-Ashter al-Nakha'i when he appointed him as a ruler of Egypt, he said to him (examine the work of your employees and tasks you delegate to them, let this be a test to them and shall not be a favouritism or nepotism. The affairs of the state, its people and rulers will not run effectively unless those employed by the ruler to help in filling the gaps and running the country are of a good quality and are suitable for the role they undertake), (Attieh 1983).

The Caliph Umar ibn al-Khattab (ra) chose the workers from the Arabs not because of their race or superiority, but for their ability to understand and comprehend the origins of Islamic law and its teachings. This is because they would be guiding people in their religious matters, settle their disputes and allocate and distribute money according to the entitlement of each individual in the state and in accordance with Shariah rules.

It is noted that according to the Islamic system, it is not permissible for public posts in the state to be given—in general terms—except to qualified and honest individuals, those who do not hold such qualities will not be considered for such appointments (Abdul Wahab 1984). This also applies to all accounting functions in particular. Accordingly, the selection of qualified individuals (workers) since the

inception of the Muslim state has been regarded as a performance of trusteeship, so that the trustee/ruler in the position of power must give every work or task to proper and fit individuals who are able to perform it well (Abdul Wahab 1984). This is supported by this verse in the Quràn, "O you who believe, do not betray Allah and the Messenger, and do not betray your trusts knowingly" (Quràn, Al-Anfal, 8: 27).

On this basis, it can be said that the selection of qualified individuals from accounting and financial work perspectives was given great importance, so that the appropriate individual is placed in the appropriate position based on their ability and practical qualifications to exercise the work efficiently. This should be done without favouritism or cheating, the Prophet (pbuh) emphasized that by saying: "whoever was in the position of power to serve Muslims and he appointed someone to manage their affairs out of nepotism, he will be damned until the day of judgment." (Al-Bukhari 1985). He also said: "Any ruler/person, who is in the position of trust to manage the affairs of Muslims and abuses his position dishonestly and dies in that state, Allah will forbid him from entering Paradise." (Al-Bukhari 1985).

It is noted that all the basic scientific elements of internal controls in the present time were in place during the Islamic rule and are part of the Islamic economics and finance system. It can be said that it represents the basis currently in place for achieving the highest efficiency of internal control of the accounting system and should be now implemented in the same manner by Islamic financial institutions (IFIs) in their accountancy practices and financial reporting and disclosure.

To professional accountants and those who have received a conventional accounting education and have been brought-up on the idea of accounting as an 'objective', technical and value-free discipline, the idea of attaching a religious adjective to accounting may seem to be embarrassing and unprofessional. On the other hand, the development of Islamic banking and finance now embraced even by ardent capitalist institutions such as Citibank, Lloyds, Standard Chartered Bank and others may interest accountants and auditors to the possibility of new opportunities in this new discipline. Perhaps, the Enron affair has rekindled an interest in having more honest professionals who truly care about the public interest in addition to their pockets or positions. I have explained here what is meant by the term "faith-based accounting", together with a discussion of its origins, characteristics and components.

We have examined the historical development that this accounting systems underwent within the framework of Islamic economics and finance, by providing a unique insight and an original account into this subject. This discussion provides an important contribution by portraying accounting as a value-based science rather than a value-free object or abstract by highlighting the accounting principles of a faith-based accounting system. The faith-based accounting can be defined as the "accounting process" which provides appropriate information (not necessarily limited to financial data) to stakeholders of an entity which will enable them to ensure that the entity is continuously operating within the bounds of the faith-based rules and delivering on its socioeconomic objectives. Faith-based accounting is also a tool, which enables its participants to evaluate their own accountabilities under such religious rules, in respect of inter-human/environmental financial transactions.

People transact through institutions such as businesses and banks. These activities are classified, recorded and summarised using a philosophic filter (faith-based accounting standards) to produce accounting statements, which people act on. If the information produced is useful and appropriate to make economic or social decisions through a moral framework, then the users will act in ways to correct their 'sins' and increase good behaviour leading to God's pleasure in this world and in the hereafter. If the accounting information system misinforms or does not provide appropriate information for those it applies to, IFIs might be undertaking sinful not compliant activities, the responsibility for which will be borne by the investors or clients of IFIs as they are participants in that process. The meaning of "faith-based" accounting would be clearer if we compare this with the definition of "conventional" accounting. Conventional accounting as is defined to be the identification, recording, classification, interpreting and communication of economic events to permit users to make informed decisions (Ibrahim 2007). From this, both faith-based and conventional accounting are in the business of providing information. The differences lie in the objectives of providing such information, what type of information is identified and how is it measured, valued, recorded and communicated, and to whom it is communicated (the participants).

The most important types of accountancy, its components and internal controls that were known in the Islamic faith-based accounting system over 1400 years of its history. I further analytically examine the components of the faith-based accounting system in terms of the principles, basis and foundational structure of this accounting system. We further analyse the origins of the accounting system within the Islamic economics and finance framework. Our analysis draws a comparison to what is currently practiced with some lessons and conclusions regarding the faith-based accounting system that contemporary Islamic financial institutions (IFIs) could benefit from and implement in its current accounting practices, policies and procedures. This is because IFIs are also faith-based organisations that would follow the applicable religious rules for undertaking and offering financial services. Such rules are an integral part of its governance structure and operation, which they are required to maintain in everything they do. The contribution of this discussion would help IFIs understand how their faith-based accounting system was originated and developed to be able to incorporate its applicable components, values and elements in their accounting practices.

The faith-based accounting system deals with the resources and expenses of the state or an IFI through recording, processing and reporting, thereof in accordance with the provisions of the Islamic law. The faith-based accounting system aims to meet the needs of its actors, and to fulfil one of their religious obligations related to one of the pillars of worship, namely, *Zakat*. As well as to meet the needs of the state through the requirements to know and determine its assets, funds and how to collect them and distribute them, while ensuring controls and audit are in place. Such requirements are also applicable to IFIs that are subject to Shariah rules.

Older accountants may still remember when they first learnt accounting. They had to prepare final accounts (i.e. balance sheet and profit and loss account). However, Americanization of the curriculum has popularised the term financial statements.

Hence, the concentration of accounting has moved from stewardship based manorial accounts to accounting for money (accentuated by the monetary measurement concept). This is not to say that faith-based accounting is not concerned with money. On the contrary, due to prohibition of interest-based income or expense, profit determination would have a particular importance in the faith-based accounting when compared to conventional accounting. However, the faith-based accounting must be holistic in its reporting. Hence, both financial and non-financial measures regarding the economic, social, environmental and religious events and transactions are measured and reported.

Therefore, the question posed here would be what is the worldview behind the theory and practice of conventional accounting? Many years back, European and communist states adopted different systems of accounting. In a centrally planned or a socialist state, there is a lack of profit motive or not too much of it. Hence, the conventional accounting i.e. profits and loss account, balance sheet did not make much sense in that economic system. This is why, some may say, the accounting profession never developed in the communist countries. It is only after liberalisation i.e. conversion to capitalism that these states are trying to catch up with the West. By exploring and explaining the faith-based accounting system and its objectives, this book paves the way to expand on the posed question above and accordingly explains the worldview of the conventional accounting.

A little more reflection and we come to the conclusion that the conventional accounting system in which many of us were educated and work in is in fact capitalist accounting. The adjective 'capitalist' is not used before the word accounting, because it would then not appear neutral as capitalism is a philosophy, and one may argue it is in many ways a religion. Its sacred symbols are private property, the hudud (literal meaning the definitive borders) of the market and its god- wealth, for the creation of which, business and finance exists. Capitalism is not only the economic system which allows choices and opportunities, but a philosophy and religion which forsakes equity for efficiency and the wants of a few for the needs of the many. It can be said to be the dominant 'religion' of the world, both in Muslim and Non-Muslim countries. The ultimate objective of both science and religion is to bring about the well-being of human beings. One addresses the physical and material while the other addresses the social, mental, emotional and the spiritual.

4.5 Conclusion

This chapter deals with clarifying the concept of a faith-based accounting system and its objectives under the Islamic rule, and the historical development that this accounting system underwent within the framework of Islamic economics and finance. It explains the most important types of accountancy and internal controls that were known in the Islamic economics and finance system. It further analytically examines the components of the accounting system in the Islamic rule in terms of the principles, basis and foundational structure of this accounting system. This chapter

also analysed the scientific origins of the accounting system within the economics and finance framework under the Islamic accounting system. It also draws a comparison to what is currently practiced with some lessons and conclusions regarding the accounting system in the Islamic economic thought. Those are summarised below.

The accounting system in the Islamic economic and financial system deals with the resources and expenses of the state through recording, processing and reporting, thereof in accordance with the provisions of the Islamic law.

The accounting system in the Islamic view aims to meet the needs of Muslims, and to fulfil one of their religious obligations related to one of the pillars of Islam, namely, Zakat. As well as to meet the needs of the state through the requirements to know and determine its assets, funds and how to collect them and distribute them, while ensuring controls and audit are in place.

The process of accounting and financial accounting has been known since the beginning of the Islamic rule with the establishment of *Bait al-Maal*, and the development began from the era of the Prophet (pbuh). This development continued through the times of the first four Caliphs and beyond. The large expansion of the Islamic rule and conquests have also contributed to that development with the need for a tight financial and accounting system that is accurate, robust and efficient.

The book-keeping process was known at the time of the Muslim state before being known in the West, and before the advent of Basilio book by more than 131 years. In addition to knowing and implementing many types of accounting systems at that time.

All the elements and principles of contemporary accounting systems were familiar and were used, to a great extent, at the time of the Islamic empire. Therefore, it can be argued that such accountancy principles and components represent the basis of the modern-day accounting and financial accounting framework.

After laying down the foundations in the first four chapters and analysing the Islamic accounting history and its origins in this chapter, I will now examine how this could be applied to today's Islamic financial instruments in the Islamic finance market. So, gear up for a more in-depth analysis of the application of accounting standards and IFRS regarding the accounting of Islamic financial instruments in the next chapter. I will be starting this analysis with the equity-based Islamic financial instruments.

Chapter 5
Islamic Financial Instruments: Accounting of Equity-Based Contracts

5.1 Introduction

We discussed in the previous chapter (Chap. 4) the origins, components and elements that formed the concept of a faith-based accounting system, as a framework driven and developed by the state. This chapter discusses the accounting and financial accounting treatment of equity-based Islamic financial instruments focusing on musharaka and mudaraba Islamic finance principles. If you recall, I have categorised Islamic finance principles/contracts in Chap. 1, Fig. 1.5 into four categories. In this chapter I discuss the first category. For ease of reference, I have recalled Fig. 1.5 here, which is renumbered as 5.1, highlighting the applicable category for this chapter. The equity-based contracts category includes the Islamic finance principles of partnership (*Musharaka*), profit sharing (*Mudaraba*), investment agency (*Wakala*), followed by much less common principles, such as *Mugharasa, Musaqa* and *Muzar'a* (labour and materials profit sharing contracts related to agricultural financing). As the core of these three principles is labour and profit sharing arrangement, it would fall under *Musharaka* instruments.

Therefore, I will not be listing them separately in this chapter, as the rules and discussion for *Mudaraba, Musharaka* and *Wakala* would apply to them by default. The organisation of this chapter would be as follows, I will be discussing the main equity-based instruments, how each instrument works in practice and the Shariah requirements as stated in Islamic jurisprudence. During the discussion of each instrument, I analyse the various types of the instrument (if any) and its application in practice and specific profit arrangement. Then, I provide an analysis of the accounting treatment of that instrument accordingly. The discussion in this chapter starts with the Islamic finance principle of *musharaka* and then *mudaraba*, as shown in (Fig. 5.1).

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_5

Fig. 5.1 Islamic financing techniques: equity-based instruments

5.2 Financial Instruments Based on Partnership (*Musharaka*) Contracts

The word *Musharaka* in Arabic is a derivative from the root word (*sharika*)[1] or to share. *Musharaka* (*sharikatul al-'anan*) is a partnership between two or more parties whereby each partner contributes a specific amount of money in a manner that gives each one a right to deal in the assets of the partnership, on condition that profit is to be distributed among the partners according to the partnership agreement and losses are to be borne by the partners in accordance with the contribution of each partner to the *Musharaka* capital. The legitimacy of the *Musharaka* is derived from the verse in which Allah (SWT), says, "...And, verily, many partners oppress one another, except those who believe and do righteous good deeds, and they are few...." (Quran 38: 24). According to AAOIFI Shariah Standard No. 12, the legitimacy of *Musharaka* is also supported by the Sunnah: On the day he conquered Mecca, the Prophet Muhammad (pbuh) welcomed al-Sa'ib Ibn Abi al-Sa'ib al Makhzumi, the partner of the Prophet (pbuh) in business at the beginning of Islam, by saying "my brother and my partner" (Ahmad 1993). In addition to this type of partnership, there are other types (AAOIFI 2014, Standard No. 12) that are briefly listed in the table below for the benefit of the reader.

[1]It should be noted that the definition (and the spelling) of term "*sharikat*" and its sub-categories (such as *sharikat al-milk* or *sharikat al-'aqad*) differs somewhat between different authors, and even the definitions given by AAOIFI in different standards are not fully congruent.

Type of partnership	Brief description
Contract partnership (*Shirkat al-aqd*)	It is an agreement between two or more parties to combine their assets and liabilities with the aim of making profit
Partnership of ownership (*Sharikat al-Milk*)	It is the combination of the assets of two or more persons in a manner that creates a state of sharing the realised profits and losses. This is however, is not always the case as in some form of it used for home finance profit sharing is not applicable
Mufawda partnership	It is a partnership in which the parties are equal in all respects, such as fund contribution, rights, liabilities, etc.
Sharecropping partnership	This is a partnership in crops in which one party presents land to another for cultivation for a common defined share in the crop
Irrigating partnership	It is a partnership that depends on one party presenting designated plants that produce edible fruits to another in order to work on their irrigation in consideration for a common defined share in the fruits
Agricultural partnership	It is a partnership in which one party presents a treeless piece of land to another to plant it with trees t on condition that they would share the trees and fruits in accordance with a defined percentage

- Partnerships of contract (*sharikat al-'aqd*) come into existence on the basis of the mutual consent of the contracting parties who pool resources for commercial undertakings with the aim of earning profit. Sub-categories have been formed with respect to, for example, the kind of pooled assets (such as irrigation or sharecropping partnerships) or the purpose of the joint undertaking (such as trade partnerships) (Sadique 2012).
- Diminishing *Musharaka* (*Musharaka Mutanaqisa*) is a form of partnership in which one of the partners buys the equity share of the other partner gradually until the title to the equity is completely transferred to the buying partner. This transaction starts with the formation of the partnership, after which buying and selling of the equity take place between the two partners. It is therefore necessary that this buying and selling should not be stipulated in the partnership contract. In other words, the buying partner is allowed to give only a promise to buy. This buying and selling agreement must be independent of the partnership contract. It is not permitted to enter one contract on the condition of concluding another.
- Partnerships of ownership (*sharikat al-milk*) come into existence when two or more people jointly hold the ownership of a property, as the result of a joint purchase or of inheritance. They are also known as "holding partnerships".

All partnership contracts include stipulations regarding the contributed assets and services as well as rules for the distribution of profits and losses. One special type of partnership has been developed and propagated particularly as a financing instrument for Islamic financial institutions: *musharaka* (Ali 2012b). A second special kind of partnership, *mudaraba*, is best described by a comparison with *musharaka*, which I will be discussing later on in this chapter.

5.2.1 Juristic Requirements of Partnership Contract

(a) Parties to *Musharaka* contract: In *Musharaka*, partnership can be concluded between two or more parties.
(b) Capital of *Musharaka*: In *Musharaka*, the capital must be contributed by all partners. Capital can be in the form of monetary assets or in the form of tangible assets. It can be contributed in a lump sum or in various instalments even in different currencies. Using debt alone as the capital to the partnership is not permitted, except to the condition when it becomes inseparable.
(c) Management of *Musharaka*: In *Musharaka*, all partners have equal right to take part in its management. However, the management of partnership can be restricted to certain partners or to a single partner, in which case the other partners are not allowed to act on behalf of the partnership. Some or one of the partners can be appointed as a manager on the basis of an independent contract other than the *Musharaka* and can be paid remuneration. A manager other than the partners can also be appointed and can be paid a fixed remuneration.
(d) Guarantee to *Musharaka*: All partners maintain assets of *Musharaka* on trust basis. Therefore, no one is liable, except in the case of misconduct, negligence or breach of contract. A partner cannot guarantee the capital of another partner except when one provides a personal guarantee to cover cases of misconduct, negligence or breach of contract. A third party can also provide a guarantee to the capital of the partners (Marifa 2014; Ali 2012a, b).
(e) Profit Distribution: The proportion of profit to be distributed between or among partners must be agreed upon at the time of effecting the contract. The profit sharing ratio can be one other than the capital contribution ratio, but cannot be a lump sum or a percentage of capital. It is, however, not permitted to defer the determination of the profit percentage owing to each partner until the realization of profit. As for the procedure to calculate profit, partners can adopt either a permanent or varying method, for example, by agreeing that the percentage of profit shares in the first period are one set of percentages and in the second period are another set, or by using any other method for the calculation and allocation of profit. Even profit sharing can be done in a condition where the profit realised is above a certain ceiling; the profit in excess of such a ceiling will then belong to a particular partner. It is to be noted that in *Musharaka*, certain funds can be allocated to any of the partners on account before the final settlement of profit or *Musharaka* assets and it can be settled at the end (Marifa 2014).
(f) Loss: Islamic jurists are unanimous on the point that proportions of losses borne by partners must be equal to the proportions of their capital contributions (Marifa 2014).
(g) Maturity and termination: Each partner has a right to terminate (Marifa 2014) the *Musharaka* after giving due notice. Partners can enter into a binding promise to continue the partnership for a period of time. In case of maturity, assets can be distributed in a fixed proportion between or among partners. If this is not possible, then one of the partners can buy all the assets as per their market

value (not on face value) and pay the proceeds to others. A *Musharaka* can also come to an end on the expiry date or as per the agreement of partners to terminate prematurely, or in case of death or incapacity of a partner (Sadique 2009).

(h) Diminishing *Musharaka*: All the general rules of a *Musharaka* (partnership) are applied to a Diminishing *Musharaka*. One partner can give a binding promise to another partner to acquire, on the basis of a sale contract, his equity shares gradually, according to the market value or price agreed upon at the time of acquisition in case of partnership is based on *Sharikat al 'Aqd*. This promise, however, can be given by one partner to another to purchase its equity shares at their face value should the partnership be based on *Sharikat al Milk*. The latter is the structure and general practice in the Islamic banking industry for offering financing, which I will be discussing its financial accounting in this chapter.

AAOIFI equates the modern *musharaka* with the classical contractual partnership (*sharikat al-'aqd*). AAOIFI's Shariah Standard No. 12 (adopted in 2002) defines a contractual partnership (and thus a *musharaka*) as a partnership "between two or more parties whereby each partner contributes a specific amount of money in a manner that gives each one a right to deal in the assets of the partnership, on condition that the profit is distributed according to the partnership agreement and that the losses are borne in accordance with the contribution of each partner to the capital."

AAOIFI's Financial Accounting Standard 4 on *musharaka* financing (adopted in 1996) qualifies this definition somewhat and explicates more *musharaka* terms and rules (in appendix B of that Standard on juristic rules for *musharaka* financing transactions), which are derived from Sect. 5.2.1 above:

- The capital should be contributed in cash, gold or silver. However, it could also consist of trading assets, property, equipment or intangible rights (and probably any other valuable asset), provided that these assets are valued at their cash equivalent according to what the partners agree upon. The typical structure of a *musharaka* financing is shown in Fig. 5.2.
- All partners have the right to participate in the "work" of a *musharaka*, i.e. in its management. Each partner acts on behalf of himself and as an agent for his partners; he is subject to the Shariah rules of agency. In particular, he must not act against the interests of the others. No partner can be denied his right to work for the *musharaka* (to participate in the management) by the others, but not all partners must exercise their right with the same intensity. A partner who is particularly active in the management can claim an additional profit share. In practice, banks that have co-financed *musharaka* projects usually did not get actively involved in the management as long as the performance of the project did not fall short of certain benchmarks.
- The contributed capital of all parties constitutes a single fund. All partners have the same right to dispose of the pooled assets in the normal course of the business. This makes it highly recommendable to assign specific tasks to each partner and to define the scope of each partner's work.
- Neither partner can guarantee the other partner's capital. It is permissible, however, to ask for securities to protect against negligence or misconduct.

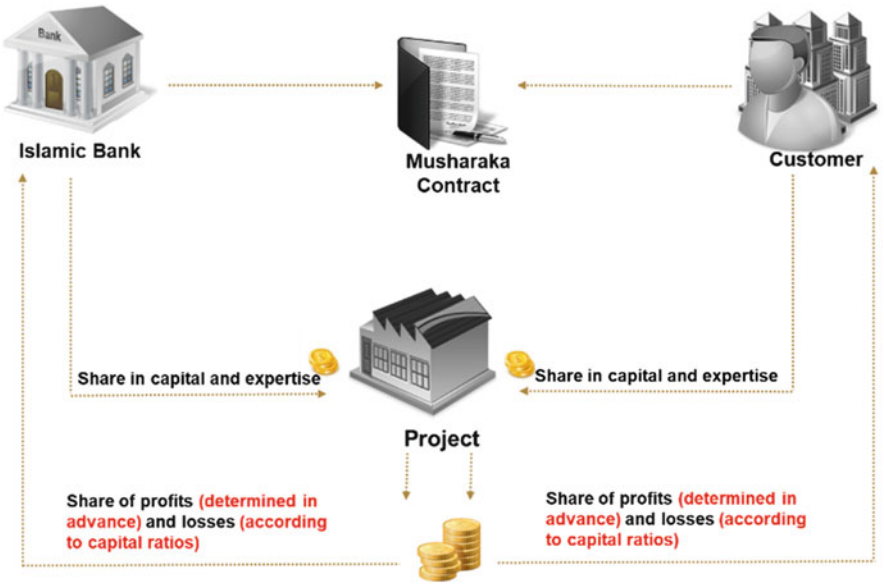


Fig. 5.2 Typical structure of *musharaka* financing

- Should shares in the *musharaka* capital be transferred from one partner to another, this should be done on the basis of the fair value at the time of transfer.
- The profit has to be shared among the partners. Predetermined amounts must not be assigned to any partner. However, it is permissible to assign all profits beyond a certain amount to one of the partners only. In practice, such an arrangement is called an "incentive fee" for the management of the pooled funds. The effect is that the other partners will get (at best) a predetermined return on their invested capital, while extra profits are appropriated by the managing partner (Ali 2012a, b).
- There are different opinions among jurists regarding the allocation of profits to the different partners. AAOIFI suggests allocating one part of the profits in proportion to the capital contribution and another part according to the work of the partners for the *musharakah*. However, the "mainstream view" and practice is more flexible and allows profit shares, which are not proportionate to capital contributions and work efforts, but agreed upon among the partners. They may adopt whatever basis they have used for their calculations, provided the formula is clearly understood, determined *ex ante,* and does not assign a fixed amount to any of the partners.
- There is unanimity that losses have to be borne in proportion to the shares in the *musharaka* capital.

A very important thing to note that AAOIFI *musharaka* accounting standard requires an update and fresh review. Not to mention it addresses the typical *musharaka* structure, which is not used by Islamic banks, and lacks many aspects of other forms of musharka that are very common in the Islamic finance industry.

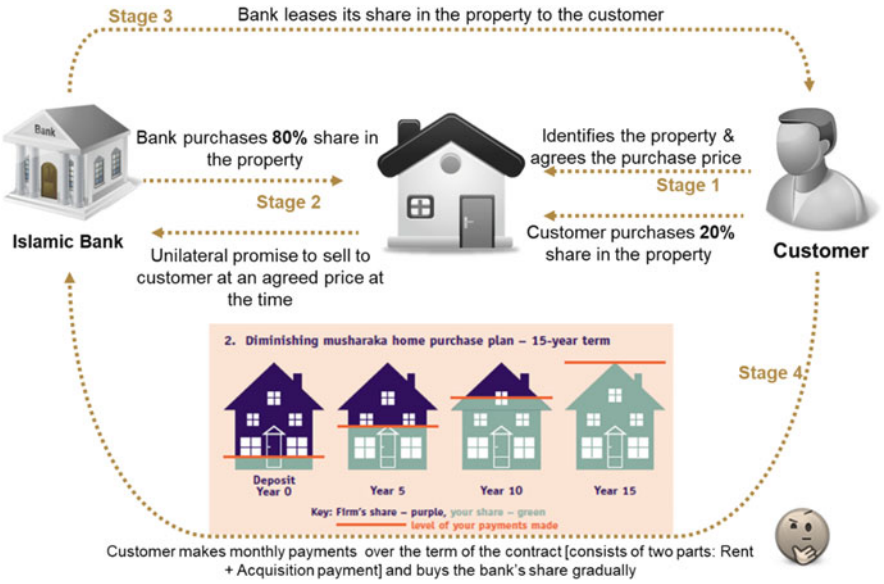


Fig. 5.3 Diminishing partnership financing structure

Therefore, to ensure the data and information I include in this book is relevant and is up to date in accordance with new accounting, regulatory and IFRS 9 rules and requirements, I will be basing my discussion on what happens in reality in the market, while leaning when possible on AAOIFI accounting standards.

Thus, the financial accounting treatment of the partnership contract would be based on the most common structure in Islamic banks, which is shown in Fig. 5.3, and I would incorporate other general aspects of the partnership contract. This is because, e.g. the diminishing *musharaka* structure adopted widely by Islamic banks is not based on profit sharing as the bank enters into this partnership to enable the client to purchase their home or commercial property. The bank makes its profit from leasing its share in that property to the client. So, the property is not a business venture between the parties, it is rather a partnership for specific financing end, where the client is not in it to make profit from regular income generated by this business venture.

5.2.2 *Accounting Treatment of Diminishing* Musharaka

Many of the transactions described in earlier sections, involving two or more parties entering into an arrangement with each other, are reported as if they were financing arrangements (for example loans) under IFRS. However, IFRS does identify situations in which two or more parties have entered into a joint arrangement and the accounting treatment of such joint arrangements is described in IFRS11 Joint Arrangements.

5.2.2.1 Joint Arrangements

IFRS11 defines a joint arrangement as: an arrangement where two or more parties have joint control (IFRS 11, para 4).

Joint arrangements are governed by a contractual agreement between the parties which specifies that they have joint control (i.e. that decisions have to be unanimous), and which governs the relationship between the parties.

Joint arrangements are identified as one of two types: a joint operation or a joint venture, and the accounting treatment depends on the classification, which is determined with reference to the parties' rights and obligations.

Joint Operations
A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. (IFRS 11, para 15).

Joint Ventures
A joint venture, on the other hand, is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. (IFRS 11, para 16).

An Islamic bank, therefore, needs to follow a two-stage process in assessing whether or not a contract is a joint arrangement. For both of these assessments, IFRS11 provides detailed guidance.

5.2.2.2 Determining Whether an Arrangement Is a Joint Arrangement

Firstly, the Islamic bank should assess whether or not all parties or a group of parties to control the arrangement. 'Control' in this context is defined by IFRS10:

An investor controls an investee if and only if the investor has all the following:

(a) power over the investee;
(b) exposure, or rights, to variable returns from its involvement with the
(c) investee; and
(d) the ability to use its power over the investee to affect the amount of the investor's returns

(IFRS 10, para 7)

Secondly, the Islamic bank should assess whether it has joint control of the arrangement. Joint control exists when decisions about the relevant activities require the unanimous consent of the parties that collectively control the arrangement.

5.2.2.3 Assessing Whether the Joint Arrangement Is a Joint Operation or a Joint-venture

The Islamic bank should consider:

(a) the structure of the joint arrangement;
(b) the legal form of any separate vehicle
(c) the terms of the contractual arrangement with a separate vehicle
(d) when relevant, other facts and circumstances

(IFRS11, para B5, B6 and B15)

Example 1
Islamic bank A and Islamic bank B establish an arrangement in which each bank has 50% of the voting rights. Decisions require approval by a majority of the voting rights.

A and B have implicitly agreed that they have joint control of the arrangement because decisions can only be made if both parties agree. The question posed here is that would this be the case in a relation between an Islamic bank and its customer in a diminishing partnership arrangement? The answer is yes, but to some extent only.

Example 2
Islamic bank C and Islamic bank D establish an arrangement in which each bank has 45% of the voting rights. The remaining 10% of the voting rights are held by a large number of individuals. Decisions require approval by a majority of the voting rights.

If the contractual arrangement specifies that decisions require the agreement of C and D, then C and D have joint control of the arrangement. However, in the absence of such an agreement, C and D do not have joint control since a decision could be made by C together with over 5% of voting rights from other individuals, without the agreement of D.

Example 3
Islamic bank E and Islamic bank F enter into an arrangement to use office space provided by a third party and agree that they will divide the costs in the ratio 40–60%. For operational convenience, E pays the third party's invoice and requests reimbursement from F. There are no assets or liabilities associated with the arrangement and no separate vehicle is established.

This arrangement is a joint operation. In each accounting period, both companies will record their share of expenses. Before F has repaid E, F will show a payable, within current liabilities, and E will show a receivable, within current assets, for F's share of the expenses. The same logic would apply in a diminishing partnership arrangement between an Islamic bank and its customer. The monthly payments due to the bank are shown as receivables within current assets.

Example 4
Islamic bank G and Islamic bank H establish a separate vehicle, Company J, which will provide office space to G, H and, possibly, others. The contractual arrangements

between G and H specify that they have an interest in the net assets of the joint arrangement. They do not have a claim on the individual assets of J and they are only liable for the obligations of J to the extent of their investments in the share capital of J.

This arrangement is a joint venture. J will produce its own accounts, while G and H will account for their interest in J using the equity method. (The accounting treatment is the same as the accounting treatment of associates).

5.2.3 Accounting Treatment of Joint Arrangements

In the case of a joint operation, each Islamic bank should account for its own share of the assets, liabilities, income and expenses in accordance with the IFRS that applies to the particular item. For example, if the proceeds of a sale are to be split evenly between two joint operators then each entity should recognise 50% of the total revenue when the conditions for revenue recognition have been met, in accordance with IAS18 Revenue.

In the case of a joint venture, each investor (Islamic bank) should recognise its investment in the net assets of the joint venture and should account for it using the equity method as described in IAS 28 Investments in Associates and Joint Ventures.

Initially, the investment in the joint venture is measured at cost. In subsequent periods, the carrying amount is calculated as the previous carrying amount *plus* the investor's share of the joint venture's total comprehensive income *less* the distributions received.

5.3 Diminishing *Musharaka* for Home Financing

The diminishing partnership—*musharaka mutanaqisah*—is a contractual arrangement with key four components: a *musharaka* contract, an *ijarah* contract, a service agency contract, and a legal charge contract, in some cases a promise to purchase and a sales contract are also included. This structure can be applied for the financing of the acquisition of all kinds of fixed assets in consumer and corporate finance. It has become a widely used arrangement for home financing, i.e. the purchase of an existing property.[2] The components typically interact (with some variations in the associated contracts based on the structure as discussed above) as follows:

- After the bank has agreed to finance the property, which the client wants to acquire, both parties form a *musharaka* partnership for the purchase of this property. The customer will contribute a certain amount of money as an initial deposit or down payment (for example 20% of the purchasing price), and the

[2]For the financing of the preceding construction period, other types of contracts such as *istisna'* have to be applied.

bank will contribute the remainder between the purchasing price and the contribution of the customer (for example 80%). This difference is the financing amount. Customer and bank are the joint owners of the *musharaka* that will acquire the property, with the customer owning 20% and the bank 80%.

- The bank and the customer will purchase the property for the *musharaka*, and the bank will get the legal title of the property and becomes the registered legal owner.
- Since the property is in existence, the customer can use it. This requires that he gets the usufruct of that part of the property that belongs to the bank. For this purpose, he will conclude a long-term *ijarah* contract with the bank in order to buy the usufruct of that part of the property that belongs to the bank.
- The rental rates paid by the customer generate a profit for the bank from the sale of the usufruct.
- The actual monthly payment is higher than the imputed rent for that part of the property that is owned by the bank as it includes an acquisition element to buy the bank's share. This extra amount is a payment for the gradual transfer of the ownership in the *musharaka* from the bank to the customer. Suppose the bank and the customer envisage that the ownership will be transferred gradually, and the customer will become the full owner at the end of the 10th year. This perspective cannot be written into the *musharaka* contract (because it would possibly add an element of another contract into the *musharaka* agreement which is the merging of two contracts into one). It has to take the form of a unilateral promise (*wa'd*) of the customer to buy the *musharaka* shares from the bank over a certain period of time. Some have argued this point in relation to having the unilateral promise and a separate sale contract. As this would be the case for a *Shariakat al 'Aqd* structure, which is the standard partnership. You would assume from the name 'diminishing partnership' that the gradual sale of one of the partner's share is imbedded within, while the price is agreed at the time in the operational form known and practiced by Islamic banks. This is another view of how this contract would work that may affect the accounting treatment under e.g. joint venture arrangement, because it is not a joint venture between the bank and the customer.
- This could be achieved in different ways. For example, the customer—who already owns 20%—could pay the outstanding 80% in equal amounts at the end of each year (10% of the price of the house) and he accumulates the annual instalments through monthly leasing rates, which exceed the sale price of the usufruct (the imputed rent) by a respective amount. Because the customer owns 10% more of the *musharaka* each year, he has to pay less rent to bank, and the leasing rates decrease over time. Alternatively, the parties could agree on constant leasing rates for the full lease period but with a changing structure of the leasing rates: One component of the leasing rates is the rent, the other the payment for the transfer of *musharaka* ownership shares. The rent component of the constant leasing rate will decrease, and the ownership component will increase over time.

At the end of the finance period and after the full take-over of the *musharaka* shares, the bank will transfer the legal title of the property to the customer, who then becomes the full owner of the asset.

5.3.1 IFRS Treatment

Where a property is financed by the pure lease agreement then the accounting treatment is as described in the sections above.

5.4 *Mudaraba* (Venture Capital): Silent Partnership

The term *Mudaraba* is derived from the phrase *al-darb fil al-`ard* found in the Quran, which means to make a journey. It is so called because a worker strives and toils in the course of a business, and in most cases, making journeys is an inevitable and indispensable part of this hard work or toil. *Mudaraba* is a form of partnership in profit whereby one party provides capital (*rab-al-maal*) and another, management skill or labour (*mudarib*). The *Mudaraba* contract derives its legitimacy from the verse of the Quran in which Allah, Most High says, "Others travelling through the land, seeking of Allah's Bounty. . ." (Al Quran 73: 20). According to AAOIFI standard No. 13, the proof from the Sunnah on the legality of *Mudaraba* can be ascertained from the *Hadith* that says that al Abbas Ibn Abd al-Muttalib (ra) used to pay money for *Mudaraba* and to stipulate to the *Mudarib* that he was not to travel by sea, pass by valleys or trade in livestock, and that the *Mudarib* would be liable for any losses if he did so. Those conditions were brought before the Prophet Muhammad (pbuh) and he approved of them.

For practical purposes, *mudaraba* can be seen as a special case of *musharaka*, although the Shariah background is somewhat different. In general, a *mudaraba* is a *musharaka* to which one party provides only capital (but no labour) and the other party provides only labour (entrepreneurial skills, but no capital). The capital provider (investor) is called *rab al-maal*, the manager of the partnership is called *mudarib* (Sadique 2012).

5.4.1 Differences Between Mudaraba *and* Musharaka

AAOIFI has listed the conditions for *mudaraba* contracts in the Shariah Standard No. 13 (adopted in 2002). The most important conditions which differ from *musharaka* are the following:

- A *mudaraba* is typically a contractual arrangement for a specified duration.

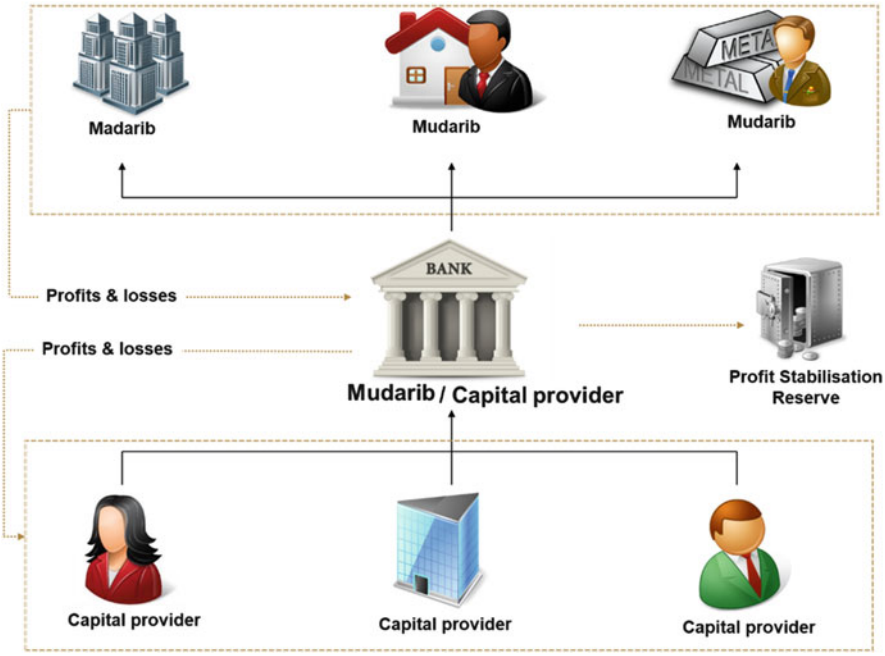


Fig. 5.4 *Mudaraba* partnership financing structure

- Only the labour providing party has the right to manage the partnership. The managing party cannot claim a fixed compensation (fee) for its entrepreneurial efforts. Instead, it will receive a share of the net profit (if any).
- Profits are to be shared according to agreed percentages of the profit. It is not permissible to assign a fixed amount or a percentage of the capital to one party.
- It is permissible "to change the ratio of distribution of profit at any time and to define the duration for which the agreement will remain valid."
- As in the *musharaka* contract, it is permissible to stipulate a performance fee for the managing party: Profits beyond a certain benchmark amount can be assigned to the manager (in total or partially through a higher sharing ratio than the one which is applied to profits up to the benchmark). The *mudaraba* partnership financing structure is shown in Fig. 5.4.
- *Mudaraba* is a trust-based contract. The *mudarib* who is investing capital is not liable for losses except in cases of misconduct, negligence and breach of the terms of the contract. Losses which result from the "normal business" have to be borne by the capital providing party, while the efforts of the entrepreneurial partner go unrewarded. Losses have to be brought forward and should be offset by future profits. Distributable profits can only be recognized or claimed after the *mudaraba* capital has been restored. Profits or losses must be calculated over

the whole duration of the *mudaraba* and can be determined finally only on the liquidation date (Sadique 2009).

- The final distribution of profit should be made based on the selling price of the *Mudaraba* assets, which is known as actual valuation. It is also permissible that the profit be distributed on the basis of constructive valuation, which is valuation of the assets on the basis of fair value. Receivables shall be measured at the cash equivalent, or net realisable, value, i.e. after the deduction of a provision for doubtful debts. In measuring receivables, neither time value (interest rate) nor discount on current value for extension of period of payment shall be taken into consideration.
- The contract establishing a *mudaraba* defines the framework for the use of the *mudaraba* capital. This can be very general in an "unrestricted *mudaraba*" (e.g., to employ the *mudarabah* capital in any profit generating deal), or specific: In a "restricted *mudaraba*" the *rab al-maal* can restrict the activities of the *mudarib* to a particular location or a particular type of investment (e.g., to finance the import of construction vehicles). Unrestricted *mudaraba* is of particular relevance for the general "deposit business" of Islamic banks, while restricted *mudaraba* can be the basis for a targeted project financing.
- There is no mutual agency relation between the partners because only one party has the right to manage the *mudaraba*. The termination of a *mudaraba* by a unilateral declaration is possible only before the *mudarib* has commenced the agreed business.

The *mudaraba* partnership is not a debt relation: The *rab al-maal* is not a lender and the *mudarib* is not a borrower. The *rab al-maal* remains the owner of the capital, and the *mudarib* is the trustee of the *mudaraba* assets. The liability of the *rab al-maal* for actions of the *mudarib* is limited to the amount of the *mudaraba* capital.

Islamic economists have propagated *musharaka* and *mudaraba* partnerships as "the" Islamic alternative to conventional finance based on debt. A financial system predominantly based on equity-like contracts with profit and loss sharing (PLS) arrangements between capital providers and entrepreneurial partners should be superior to conventional finance in several respects (Ayub 2007). For example, it is considered to be more just because it distributes financial risks and rewards more equitable between financiers and entrepreneurs, and more stable because of superior shock-absorption qualities or equity. Unfortunately, the reality of Islamic banking so far does not live up to the high expectations.

5.4.2 Mudaraba *Financing Arrangement*

What makes the profit-sharing principle of *mudaraba* partnerships particularly attractive in theory, the IFI's participation in the entrepreneurial (yield) risk makes this instrument critical from the IFI's point of view:

- In order to get a reliable forecast for the profit of an investment, the bank needs qualified and expensive staff capable of evaluating investment plans and market expectations of the prospective entrepreneurial partner.
- Despite all evaluations, the bank does not know the precise level of profits or the profitability of its capital investment in advance. This uncertainty is particularly high for innovative projects.
- If the profit share is fixed in percentage terms, the bank has to protect itself against incidents of manipulation or window-dressing, but also against mismanagement and fraud. This is particularly difficult in environments where accounting and reporting practices are weak.
- Bank managers also point out that their depositors (investment account holders, see below) are typically risk averse. The bank invests their savings as a trustee and must not expose the customers' funds to an avoidable risk.

For these reasons, *mudaraba* or *musharaka* partnerships are very rare in the financing business of Islamic banks. *Wakala* would also require the same treatment as *mudaraba*, but is different to *musharaka*, when used as a financing instrument as all what I discussed above would apply except for the profit sharing treatment.

5.4.3 Mudaraba-*Based "Deposit" Products*

The classic *mudaraba* nominate contract has become the core of a contractual arrangement which does not have any precedent in the traditional Islamic law, namely *mudaraba*-based investment accounts as Shariah compliant alternatives to conventional savings and term deposits. Islamic banks can offer "true" deposits only as current accounts for transaction purposes. The depositors cannot claim any financial return because the bank guarantees the full repayment of their funds, which is based on a *qard hasan* principle. If account holders want a return like savers in conventional banks, they have to take the position of a *rab al-maal* (capital provider) whose money is invested by the IFI as a *mudarib* (trustee or investment manager). In this role, the investment account holders share the profits with the IFI, but, have also to bear all investment losses as *rab al-maal*. Therefore, investment accounts are no deposits and the IFI is only responsible for losses caused by misconduct or negligence from a Shariah compliance perspective.

In spite of the identical contractual basis, there are considerable differences between a *mudaraba* formed by a bank and an entrepreneur and *mudaraba*-based investment accounts.

- In a *mudaraba* financing, the IFI is *rab al-maal* and the entrepreneur is the *mudarib*, it is the reverse of *mudaraba*-based investment accounts: where the IFI is the *mudarib* and the investment account holders are the *rab al-maal*.
- Entrepreneurial *mudaraba* partnerships are typically for a specified project or period. They have a clear beginning and a predetermined end. In a *mudaraba* investment account the partnership has a clear beginning but no predetermined

end because bank accounts are a going concern. The money is not invested in specified projects with a clear beginning and a termination date/event, but in a continuous stream of investment pools.
- Funds in *mudaraba* investment accounts may be comingled with other funds of the IFI's deposits on current accounts or own funds of the IFI. This makes the calculation of profits more complex. In principle, there is a continuous stream of funds flowing into the IFI with different amounts from different account holders, and a continuous stream of returns from the investment of a conglomerate of *mudaraba*-based and other funds. It is impossible to determine exactly the profit shares, which have been generated by the investment of the funds of a particular account holder. Therefore, Islamic banks have to take recourse to a large number of assumptions and fictions for the calculation of profit shares.

Once a bank has calculated what is due to its investment account holders, it may realize that this return is less than what the account holders have expected or what they could get from another Islamic bank. The investment account holders would react with withdrawals, and this could cause liquidity or funding problems for the IFI, which would require an action to smooth profit payment.

5.4.4 Profit Smoothing

Therefore, the management of an IFI may decide to give up 'voluntarily' parts of the profits, which are due to the IFI (respectively the shareholders) in order to beef up the payouts for the investment account holders. But before that, the management could draw down reserves which were built up in 'good years' in the past.

- If the reserves were built from retained profits before the profit distribution between the investment account holders and the IFI, both parties contribute to these so-called investment risk reserves (IRR). The IRR can be used as a cushion for losses from poor investments, but not for profit smoothing.
- Profit smoothing requires so-called profit equalisation/stabilisation reserves (PER or PSR). The PER/PSR is owned by the investment account holders only, which means that they had to be built up after profit distribution from the profit shares allocated to the investment accounts. The PSR must not be used to cover up losses but only to increase profit payouts (which requires that profits and not losses have been generated in the first place).

The effect of the reserves is a redistribution of profits between different generations of account holders and a blurring of the link between profit payouts and investment performance in a given period. The "smoothing" of payouts creates a "look and feel" of investment accounts that is very close to conventional interest-bearing savings or term deposits, especially if Islamic banks announce an "expected rate of return" for investment accounts, which is close to the market rate of interest.

The profit allocation model in IFIs is typically divided into two main pools of funds. However additional pools of funds can be created, for example to enable the funding for specific tranches of assets, subject to Shariah requirements. The general principle that will determine the composition of funding pools is that short term deposits will be invested in short term assets, and long-term funds will be invested in long term assets. Therefore, it is expected that there will be:

(a) Short term pool(s) of funds
(b) Long term pool(s) of funds

The allocation of funds into pools and their investment should be defined and made clear by the Islamic bank from a Shariah compliance perspective. The Shariah requirements for such allocation is that there should be clear, transparent, segregation between the long and short-term pools and the investments made from each pool of funds. This should be justifiable in terms of why certain products are allocated to each pool, and such pools should not be manipulated by the IFI or subsidised from other pools. The definition of short term and long term for each of the funding and asset pools is based on each IFI's internal definition of each pool for funding purposes and the regulatory requirement to fund long term assets from long term funds. This will determine the initial allocation of funds to each pool and will be based on original maturity not remaining maturity (i.e. funds will not transfer from the long-term pool to the short-term pool when their remaining maturity may warrant their different treatment for regulatory purposes). This may be changed based on business decisions and, should this be the case, the changes must be in accordance with Shariah requirements for profit allocation and distribution of *mudaraba* or *wakala* investment accounts. Once allocated to a pool, assets and funds cannot be transferred to another pool without following the above process. This allocation of products to the pools or the addition of other pools e.g. in foreign currencies or different categorisation, if applicable, should be reviewed annually or when the need arises to do so.

Short Term Funding Pool

This pool is generally comprised of instant access savings products that are considered short term funding. This may in certain cases include savings products that have a slightly longer original maturity but considered short term from the bank's perspective. This pool is based on savings products structured and based on the Islamic finance principle of *mudaraba* (though may also include products structured on other Islamic finance principles). The Islamic bank usually invests the customers' deposits in relatively short-term assets (which may include but are not limited to treasury commodity *murabaha*, *mudaraba* and *wakala* interbank placements), in order to generate profit over a calculation period (normally 1 month). Then, at the calculation date the profit will be calculated and shared with customers (investment accountholders) as per the profit allocation model and in accordance with the profit sharing arrangements in the product legal terms and conditions.

Long-term Funding Pool

This pool is funded by savings products that are considered long term according to the bank's internal and regulatory classification of its savings products and risk management approach to funding its asset growth. This means all products that do not allow instant access to the funds will be allocated to this pool. The allocation of funds to the long-term pool will be based on the original maturity of the funds. Therefore, where customers put funds on notice for withdrawal or the funds are reaching maturity, the funds should remain as long-term money until the withdrawn amounts are paid to customers. This pool is used principally to fund commercial and retail assets.

The long-term pool of funds could be based on a range of products that are mainly structured on the *wakala* investment contract, although there may also be *mudaraba* deposits or products structured on other Islamic finance principles. Under *wakala* the bank invests the customers' deposits in this pool of funds as *wakeel* (agent) to generate an expected rate of profit. The profit then is calculated over the relevant calculation period and at the relevant calculation date in accordance with the product's terms and conditions. The bank would set its target profit rate every month or other intervals for all savings products. Under the *wakala* principle, the bank sets an achievable expected rate of profit for the savings products and keep an acceptable margin as the bank's profit over and above the expected profit rate advertised by the bank, which is called the bank incentive.

The expected profit rate will be based on the anticipated rate of return on the IFI's long-term asset products such as home and commercial property finance. For example, if the overall average receivable rate of profit on investments is 3.5% for a calculation period, the bank may keep 1.5% as its margin of profit over and above the expected profit rate of 2% provided to customers. The bank may adjust its margin of profit to less than 1.5% in this example in order to be able to pay the target savings profit rate to its customers. In the event of any shortfall in the expected profit rate to be paid to customers, the bank may, as long as it is not contractual arrangement with its customers, lower its fee/margin to 0%, or use the bank's capital in order to smooth the payment of the expected profit rate.

This should be done only in extreme scenarios where there is a significant risk of customers withdrawing their funds and the bank faces a potential liquidity issue. The bank may use this approach to avoid contacting affected customers to offer them the option of either accepting a lower profit rate from that point (subject to regulatory notice for reductions in profit rates payable) up to their relevant maturity date, or the right to close their account and take their deposits with the profit accrued up to that date, and before their profit rate is reduced in accordance with the *wakala* based products' terms and conditions.

5.4.5 *Profit Calculation Process*

On each calculation date for the relevant calculation period an IFI calculates customers' share of profit in relation to *mudaraba* investment accounts in the following manner;

firstly, the gross income for each pool of assets will be calculated;

secondly, the IFI calculates the net income by deducting direct costs, fees and expenses incurred in respect of the investment of the pool of funds. The maximum annual percentage that the IFI may deduct for such costs, fees and expenses shall be limited to a clearly specified percentage (say e.g. 1%) of the average balance of the pool of funds during the calculation period. This percentage is specified in the terms and conditions of the investment product(s) that is agreed with the customer;

thirdly, the IFI would then calculate customers' gross share of profit by deducting the bank's share of profit from the net income. The bank's share of profit will be limited to a maximum percentage specified in the product terms and conditions document e.g. 50% or 40% of the net income of the relevant single savings *mudaraba* product;

fourthly, the IFI calculates the contribution to be made to the profit stabilisation reserve (see previous sections discussing the function of the IRR and PSR). The maximum percentage that the bank shall deduct will be limited to a clearly specified percentage (say e.g. 15%), in the terms and conditions, of customers' gross share of profit;

finally, the balance of the profit earned after the banks deductions and any funding to the profit stabilization reserve will be credited to customers' account with their share of profit after deduction of tax, if applicable.

An IFI may from time to time choose, non-contractually, to take less than what it is entitled to take as its agreed share of profit, for a specific calculation period. This is in order to be able to pay the expected profit rate to its customers at in relation to that calculation period. If the IFI does so, it may take its full entitlement (i.e. its stated share of profit as per the relevant investment product's terms and conditions) on future occasions. This however, should not be a contractual arrangement, and is used only as a risk management tool to smooth the profit payment to customers, as explained above.

This is because the rate of return risk is generally associated with overall balance sheet exposures, where mismatches arise between assets and balances from fund providers i.e. depositors. Since the responsibility of an IFI is to manage its customers' expectations and its liabilities to account holders, the rate of return risk is a strategic risk forming part of the IFI's balance sheet risk management. IFIs are exposed to profit rate of return risk in the context of their overall balance sheet exposures. An increase in benchmark rates may result in customers having expectations of a higher rate of return, which is not necessary the case for Islamic banks and their savings products. Rate of return risk differs from interest rate risk in interest-based conventional savings accounts, in that an IFI is concerned with the

result of its Shariah compliant investment activities at the end of the investment calculation period. Such results cannot be pre-determined exactly.

A consequence of rate of return risk may be displaced commercial risk. Thus, an IFI may be under market pressure to pay the expected profit rate provided to customers when the return on assets is under-performing as compared to previous profit rates achieved. The IFI may decide to waive its rights to part or its entire share of profits in order to satisfy and retain its customers and dissuade them from withdrawing their funds. Displaced commercial risk derives from competitive pressures on the IFI to attract and retain customers (fund providers). The decision of an IFI to waive its rights to part or all of its share in profits in favour of customers is a commercial decision, the basis for which needs to be subject to clear and well-defined policies and procedures approved by the IFI's Shariah Supervisory Committee (SSC) as and when required. In the event the IFI is wound up and there is still a balance in the PSR, the whole balance should be used towards paying the IFI obligations to its customers on that investment pool, or donated to approved charities on the customers' behalf under the supervision of the SSC.

5.4.6 Investment Accounts Classification on the Balance Sheet

Conceptually it has to be conceded that *mudaraba*-based investment accounts are different from deposits, but they are also different from equity since the funds paid into the accounts can be withdrawn at short notice. On the liabilities side of an IFI's balance sheet, investment accounts neither fit into the category of "deposits" nor into the category of "equity". It is a reasonable demand that a new category should be introduced between liabilities (deposits) and equity. However, while a separate category for *mudaraba*-based investment accounts would underlines their peculiar legal character, their *de facto* status may be quite close to deposits.

This is particularly true when there is an extensive smoothing of profit payouts and a strong parallel movement of the rate of return on investment accounts with the market rate of interest on conventional deposits. The management of an IFI seemingly treats investment accounts like deposits, and their classification as "deposits" under "liabilities" would be a reasonable approximation of their *de facto* status. However, not all IFIs use smoothing techniques extensively, and therefore it is difficult to do justice to all the different practices in the Islamic finance industry. Nevertheless, as long as no separate category between equity and liabilities is introduced, investment accounts seem to be generally closer to deposits than to equity, and therefore should be classified, with some caveats in an explanatory note, as liabilities.

The debate on the classification of *mudaraba* investment accounts is not a dispute about words. It is a dispute on how to capture, disclose and communicate the risk absorbing capacities of investment accounts to the stakeholders of Islamic banks,

including the investment account holders themselves. The problem is that smoothing practices of Islamic banks have created a divergence between the legal form of *mudaraba* investment accounts and their *de facto* commercial treatment (i.e. their economic substance). This makes it difficult for the external readers of a balance sheet of an Islamic bank to understand and assess the IFI's risk profile. It also has regulatory implications and how such accounts are regularly reported to central banks (Ahmad 1993; Ali 2012a, b).

5.4.7 IFRS Treatment

As noted above, IFRS requires that transactions are accounted for in accordance with economic substance rather than the legal form. IAS32 Financial Instruments: Presentation requires the issuer of a financial instrument to classify the financial instrument as a financial liability, a financial asset or an equity instrument. The classification should be made in accordance with the substance of the contractual arrangement (IAS32, para 15).

Under IFRS, all current and deposit accounts are treated as financial assets by the customer and as financial liabilities by the IFI. A conventional bank has the obligation to repay the principal and the accumulated interest, subject only to complying with the rules of the account (for example, to give a certain amount of notice of intended withdrawals). Given what I discussed above about *mudaraba* investments and its adjustment as a deposit rather than equity, the financial regulator would recognise it accordingly and would be reported as such on the balance sheet of an Islamic bank. The same would apply to *wakala* investment accountholders in terms of accounting treatment. As mentioned in the Introduction Section above (Sect. 5.1), the accounting treatment I discussed in relation to *musharaka* and *mudaraba* applies to *Mugharasa, Musaqa* and *Muzar'a* (labour and materials profit sharing contracts related to agricultural financing).

5.5 Conclusion

It is worth noting in concluding this chapter that in response to the risk aversion of savers, some Islamic banks (in particular in Malaysia) have structured Shariah compliant savings accounts on the basis of *wadi'ah* (safe keeping) contracts. The classic *wadi'ah* contract was used for the safe keeping or guaranteed custody of objects. The custodian is responsible for the safe storage of the object and has to return it on demand to the owner. In its adapted version, the bank acts as the custodian for the money deposited by savers. The full repayment on demand is guaranteed by the IFI. This is similar to current accounts, but there is an additional clause, holders of *wadi'ah* accounts allow the IFI to invest their funds in profitable

commercial activities. The IFI as the custodian is not allowed to promise the account holders any rewards, and the account holders have no right to claim any return.

However, the IFI can 'voluntarily' present a gift (*hibah*) to the depositors (as a gesture of appreciation of their loyalty). This is deemed Shariah compliant as long as it is not done on a regular or announced basis. The actual practice seems to deviate from this requirement insofar as IFIs usually meet the expectations of their account holders for a *hibah,* which is comparable in size to the return on conventional savings accounts. It seems that this practice is tolerated in Malaysia because of the strong competition between Islamic and conventional banks. Also, in view of the need for a risk-free type of Islamic savings accounts with a guarantee of the principal and *de facto* competitive returns.

Within the same context, commodity *murabahah* for obtaining funds can be used to create Shariah compliant term deposits with predetermined returns for the depositors. The "depositor" uses his cash to purchase a commodity from a broker and sells it with a mark-up on a deferred payment basis to the IFI. The IFI then converts the commodity immediately into cash with another broker. The IFI then uses the funds received in its general financing business. The IFI pays the purchasing price in a lump sum payment on maturity, or in some cases in instalments, to the depositor. For example, an IFI could make periodic payments until maturity, which are calculated in such a way that the IFI pays the profit-mark-up during the tenor of the contract. At maturity, the IFI pays the final instalment of the outstanding amount of the purchasing price of the traded asset.

The use of commodity *murabaha* as term funding deposit allows the creation of close equivalents to interest bearing term deposits. The principal is guaranteed since the *murabahah* purchase of the commodity by an IFI has created a debt of the IFI against the "depositor", and the return on capital is predetermined since it is the profit-mark up of a sale. The problem with this instrument is that it causes Shariah concerns because one of the counterparties is a financial institution that does not have any physical use for the traded asset. This brings the commodity *murabaha* as term funding deposit very close to a legal trick and to a circumvention of the prohibition of *riba,* which is not acceptable to some Shariah scholars and bank customers.

Many of the equity-based instruments described in this Chapter, involving two or more parties entering into an arrangement with each other, are reported as if they were financing arrangements (for example loans) under IFRS. However, IFRS does identify situations in which two or more parties have entered into a joint arrangement and the accounting treatment of such joint arrangements is described in IFRS11 Joint Arrangements.

Joint arrangements are governed by a contractual agreement between the parties which specifies that they have joint control (i.e. that decisions have to be unanimous), and which governs the relationship between the parties. Joint arrangements are identified as one of two types: a joint operation or a joint venture, and the accounting treatment depends on the classification, which is determined with reference to the parties' rights and obligations. In the case of a joint operation, each Islamic bank should account for its own share of the assets, liabilities, income and

expenses in accordance with the IFRS that applies to the particular item. For example, if the proceeds of a sale are to be split evenly between two joint operators then each entity should recognise 50% of the total revenue when the conditions for revenue recognition have been met, in accordance with IAS18 Revenue.

In the case of a joint venture, each investor (Islamic bank) should recognise its investment in the net assets of the joint venture and should account for it using the equity method as described in IAS 28 Investments in Associates and Joint Ventures. Initially, the investment in the joint venture is measured at cost. In subsequent periods, the carrying amount is calculated as the previous carrying amount *plus* the investor's share of the joint venture's total comprehensive income *less* the distributions received.

The accounting treatment of *musharaka* and *mudaraba* financing instruments should be considered carefully by IFIs as discussed in this chapter. While from an IFRS accounting treatment IFIs could look into the substance over form principle, they should factor Shariah requirements regarding the nature of both *musharaka* and *mudaraba,* including the various types on *musharaka* that I discussed here and *wakala* transactions, with respect to the risk sharing aspect and accounting treatment. The next chapter considers the accounting analysis of sale-based instruments in Islamic finance, which is the second category.

Chapter 6
Islamic Financial Instruments: Accounting of Sale-Based Contracts

6.1 Introduction

The previous chapter (Chap. 5) addressed the accounting and financial accounting treatment of equity-based Islamic financial instruments focusing on *musharaka* and *mudaraba* Islamic finance principles. This chapter discusses the accounting and financial accounting treatment of sale-based Islamic financial instruments. If you recall, I have categorised Islamic finance principles/contracts in Fig. 1.5 into four categories. In this chapter I discuss the second category. For ease of reference, I have recalled Fig. 1.5 below (Fig. 6.1 now), however I renumbered it in accordance with the numbering order of this chapter, highlighting the applicable category for this chapter. The sale-based contracts category includes the Islamic finance principles of *Murabaha*, *Istisna'*, *Salam* and *Ijara*.

The organisation of this chapter would be as follows, I discuss the key sale-based instruments as shown in Fig. 6.1, how each instrument works in practice and the Shariah requirements as stated in the Islamic jurisprudence. During the discussion of each instrument, I analyse the various types of the instrument (if any) and its application in practice. Then, I provide an analysis of the accounting treatment of that instrument accordingly. The discussion in this chapter starts with the Islamic finance principle of *Murabaha* (and its variations), then *Istisna'*, *Salam* and finally *Ijara* as shown in the sections below.

The classic Islamic jurisprudence offers three types of sales contracts which can be used for the financing of assets (commodities, real estate, intellectual property rights, etc.). They differ with respect to the subject matter of the contract (existing goods or goods that have to be produced either as generic goods (fungibles) or to the specification of the purchaser) and to the time of payment and delivery, as will be shown in the following sections.

Before I start with the first instrument (*murabaha*) as mentioned above, it would be useful for the benefit of the reader to provide a quick overview of a sale contract and its various types in the Islamic commercial law.

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_6

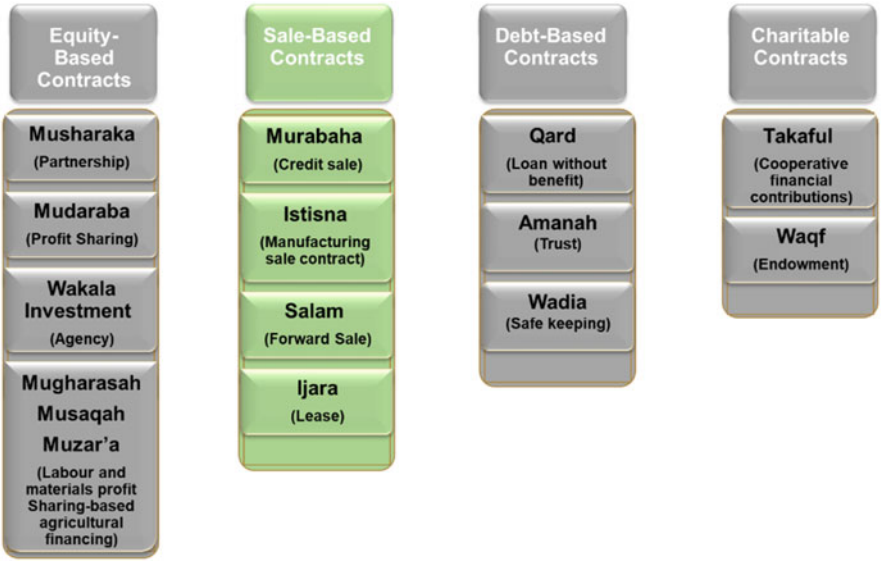


Fig. 6.1 Islamic financing techniques: sale-based instruments

6.2 Types of a Sale Contract in Islamic Jurisprudence

Islamic jurisprudence has identified various types of sale and outlined the Shariah requirements for each type. Those types of sale are explained below.

*6.2.1 General Sale (*Bay' Al-mutlaq*)*

This is a sale of goods for money contract that was developed when the problem of exchange arose in the barter system. It is the most preferred mode of trading as it can fairly value and determine the price of goods. The importance of sale of goods for money can be understood from the *Hadith* in which the Prophet (pbuh) prohibited the exchange of inferior quality of dates for superior quality and advised to sell the mixed dates of inferior quality for money and buy superior quality with that money. In that *Hadith* which is narrated by Abu Sa'id Al-Khudri and Abu Huraira (ra): "Allah's Apostle appointed somebody as a governor of Khaibar. That governor brought to him an excellent kind of dates (from Khaibar). The Prophet asked, "Are all the dates of Khaibar like this?" He replied, "By Allah, no, O Allah's Apostle! But we barter one Sa' (around 3 kg) of this (type of dates) for two Sa's of dates of ours and two Sa's of it for three of ours." Allah's Apostle said, "Do not do so (as that is a kind of usury) but sell the mixed dates (of inferior quality) for money, and then buy the better quality of dates with that money." (Al-Bukhari 1985, Hadith No. 405).

6.2.2 *Exchange Sale (*Bay' Al-sarf*)*

Bay' al-sarf is the exchange of one monetary form for another in the same or different type or category, i.e., gold for gold coins, silver for silver, gold for silver, silver for gold, etc., whether it is in the form of jewellery or mintage. According to AAOIFI (Shariah Standard No. 1), it is permissible to trade in currency as it falls under the general Islamic provisions regarding the permissibility of selling gold, silver and money as this is one of the means of earning profit. However, such trading must be done in compliance with the following Shariah rules and precepts:

- Both parties must take possession of the counter values before dispersing, such possession being either actual or constructive.
- The counter values of the same currency must be equal in amount, even if one of them is in paper money and the other is in coin of the same country, like a note of one pound for a coin of one pound.
- The contract shall not contain any conditional option or deferment clause regarding the delivery of one or both counter values.
- The dealing in currencies shall not aim at establishing a monopoly position, nor should it entail any harmful consequences to the interest of individuals or societies.
- Currency transactions shall not be carried out on the forward or future market.

6.2.3 *Sale at Cost Price (*Bay' *Al-tawliyyah)*

*Bay' al-t*awliyyah is a sale contract on which the commodity or asset is sold at the cost price without making profit. It is supported by the tradition of the Prophet Muhammad (pbuh). Aisha (ra) narrated that 'Rarely did the Prophet (pbuh) fail to visit Abu Bakr's house every day, either in the morning or in the evening. When the permission for migration to Madina was granted, all of a sudden, the Prophet came to us at noon and Abu Bakr was informed, who said, "Certainly the Prophet has come for some urgent matter." The Prophet said to Abu Bakr, when the latter entered, "Let nobody stay in your home." Abu Bakr said, "O Allah's Apostle! There are only my two daughters (namely 'Aisha and Asma') present." The Prophet said, "I feel (am informed) that I have been granted the permission for migration." Abu Bakr said, "I will accompany you, O Allah's Apostle!" The Prophet said, "You will accompany me." Abu Bakr then said, "O Allah's Apostle! I have two camels I have prepared specially for migration, so I offer you one of them. The Prophet said, "I have accepted it on the condition that I will pay its price (i.e. the cost price)." (Al-Bukhari 1985, Hadith No. 348). The main distinguishing feature between *Murabaha* and *Tawliyyah* is that in *Murabaha* there is an identified profit over the cost, whereas in *Tawliyyah* the sale is at cost (no profit).

6.2.4 *Sale at Discount (*Bay' Al-wadhi'a*)*

Bay' al-wadhi'a is a sale in which the commodity is sold at a discounted price, typically less than the cost price or purchase price, making a loss. The main distinguishing feature between *Murabaha* and *bay' al-wadhi'a* is that in *Murabaha* there is an identified profit over the cost price whereas, in *bay' al-wadhi'a* the sale is less than the cost (loss).

6.2.5 *Bargaining Sale (*Bay' Al-musawamah*)*

Bay' al-musawamah is the negotiation of a selling price between two parties without reference by the seller to either costs or asking price. It is a sale on cost plus basis, but the cost and profit margin are not disclosed to the customer. The main distinguishing feature between *Murabaha* and *bay' al-musawamah* is that in *Murabaha* the cost and profit margin must be disclosed to the customer, whereas in *bay' al-musawamah* it is not necessary to disclose the cost and profit margin to the customer (Billah 2006).

6.3 *Murabaha* (Mark-Up Sale Contract)

A *murabaha* is a contract whereby an Islamic bank as the seller sells to its customer as the buyer an asset at its own acquisition costs plus a defined and agreed profit mark-up. The word *Murabaha* is derived from the Arabic word '*Ribh*', denoting profit or gain. This mark-up may be a percentage of the selling price or a lump sum. This transaction may be concluded either without a prior promise to buy, an ordinary *Murabaha*, or with a prior promise to buy, submitted by the person interested in acquiring goods through the institution i.e. *Murabaha* to the purchaser order (the customer). This transaction is one of the trust-based sales contracts as the seller explicitly discloses the purchase price and profit margin to the buyer. In either case, the asset must be in existence and owned by the seller, and the seller has to disclose the acquisition costs to the buyer. The acquisition costs can comprise the purchasing price of the asset (paid by the seller to the supplier of the asset) plus any direct acquisition costs of the seller. Should the seller receive a discount from the provider of the asset, then this reduction of the acquisition costs has to be passed on to the customer (Hassan et al. 2013).

The legitimacy and permissibility of the *Murabaha* sale is derived from the verses of the Quran in which Allah, Most High, says, "Those who eat Riba (usury) will not stand (on the Day of Resurrection) except like the standing of a person beaten by Shaitan (Satan) leading him to insanity. That is because they say: "Trading is only like Riba (usury)," whereas Allah has permitted trading and forbidden Riba (usury).

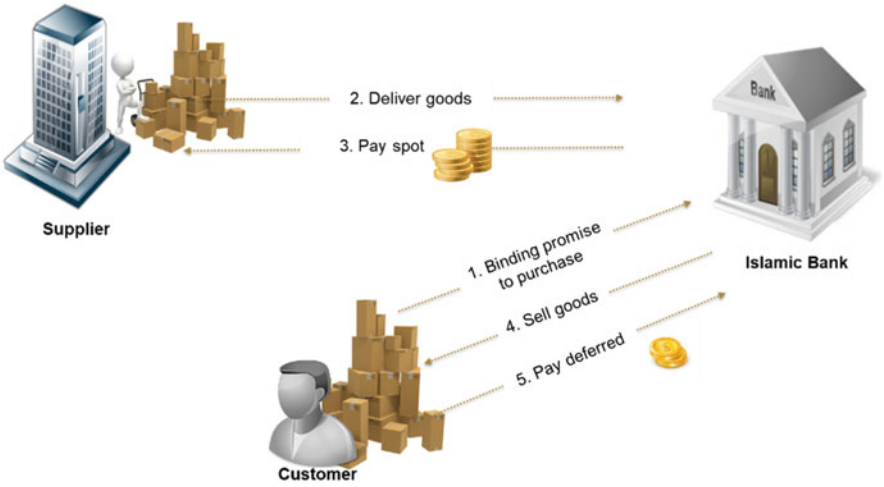


Fig. 6.2 Typical structure of a *murabaha* contract

So, whosoever receives an admonition from his Lord and stops eating Riba (usury) shall not be punished for the past; his case is for Allah (to judge); but whoever returns [to Riba (usury)], such are the dwellers of the Fire—they will abide therein", (Quran 2:275). Also "O you who believe! Eat not up your property among yourselves unjustly except it be a trade amongst you, by mutual consent. . .", (Quran 4:29).

The *murabaha* contract must specify the profit mark-up for the IFI, so that it is fixed and known to both parties. The profit mark-up may be a lump sum or a percentage of the acquisition costs, but it must not be made dependent on the future (i.e. a presently unknown and therefore not fixed) value or a variable such as the future LIBOR. However, this does not prevent the use of the actual LIBOR, or other recognised benchmarks, as a benchmark for the calculation of the profit mark-up. Figure 6.2 provides an overview of the *murabaha* contract in Islamic banking.

6.3.1 Murabaha *Financing by Deferred Payment*

The *murabahah* contract becomes a financing instrument when the buyer pays the purchase price not on the delivery date of the asset but later. Then the purchase price becomes a debt to be paid by the customer. *Murabaha* is one of the most widely used contracts at present in Islamic banking and the investment sector. It is permissible to charge a profit mark-up for a deferred payment that is higher than the mark-up for a spot payment (immediate cash settlement). Thus, a time factor plays a role in the calculation of the mark-up. However, should there be delays in the deferred payment (which are not considered as a default of the customer, see below) so that the

redemption of the purchasing price will take longer than initially expected and calculated by the IFI, the profit mark-up must not be increased to compensate the IFI for the additional time.[1] The various products where *Murabaha* is applied are as follows:

- Home financing
- Vehicle financing
- Working capital financing
- Project financing
- Goods financing
- Trade financing—letter of credit (LC) based on *Murabaha*
- *Murabaha* based Sukuk
- Profit rate swaps
- Islamic fund
- Credit card

6.3.2 Murabaha *to the Purchase Orderer*

In contrast to a *murabaha* transaction among traders, a *mudaraba* financing by an Islamic bank has some peculiarities. When a customer first contacts the IFI, the IFI will typically not own the asset for which the customer seeks financing. Since ownership is a Shariah precondition for a valid *murabaha*, the IFI and the customer cannot directly enter into a sale contract for the asset. The IFI has first to buy the asset before it can sell it on.

When the IFI acquires the asset for the customer, the customer has not concluded any contract, which would oblige him to purchase the ordered asset from the IFI. Hence, there is a risk for the IFI that the customer will not purchase the asset, so that the IFI has to find another buyer in the market (unless the IFI itself has purchased the asset from the supplier on a "sell or return" basis). Usually, IFIs are not willing to take this risk. Therefore, IFIs typically require from the customer a (written) declaration that he will purchase the ordered asset from it at the IFI's cost price plus a mark-up. Such a declaration ("purchase undertaking") is considered in Shariah a unilateral promise (*wa'd*). It is not a bilateral contract. The arrangement of an initial promise and subsequent execution of a *murabaha* is called "*murabaha* to the purchase orderer" (Rahman 2012).

[1] "It is not permitted subsequently to demand any extra payment either in consideration of extra time given for payment or for delay in payment that may be for a reason or no reason." [AAOIFI Shariah Standard 8, Statement of the Standard, paragraph 4/8]. This is a type of a rate of return risk caused by delays in payment. Another type of rate of return risk is inherent in longer-term *murabaha* contracts: If the actual benchmark (say LIBOR+) increases more than anticipated when the profit mark-up was fixed, the bank has "under-priced" its financing, but it is not permissible to correct this by, for example, an increase of the mark-up by the bank. The risks from such lock-in effects of *murabaha* contracts can also be of regulatory relevance and therefore are discussed by IFSB.

6.3.2.1 The Legal Status of a Promise to Purchase

There is no doubt that a promise is morally binding, but there was (and still) a disagreement among Shariah scholars whether a promise is also legally binding in Islamic law. However, the binding effect must not only be considered from a Shariah perspective, but also with respect to the secular law of the land, which determines whether the promise would be enforceable in this jurisdiction or not.

It is obvious that a promise which is not binding and enforceable under secular law is of no commercial value for an IFI. It is less obvious that the promise would also have no commercial value for an Islamic bank if it is binding and enforceable under secular law but not binding under Islamic law. If the IFI would enforce the promise on the basis of secular law, it would violate the Shariah view as not binding, and this non-compliance with Shariah is not acceptable for an Islamic bank. Hence, only a promise that is binding under Shariah and under secular law is of commercial value.

Fortunately for Islamic banks, the mainstream Shariah position is that a promise of one party becomes binding when the other party has taken action in reliance on that promise. In addition, contract-like promises are considered binding and enforceable in most secular jurisdictions. Therefore, the *murabaha* to the purchase orderer has become a standard contract in most Islamic banks. The Shariah view in the Islamic jurisprudence regarding the enforceability of a unilateral promise is based on a principle of the Mālikī School of jurisprudence in Shariah (one of the main four schools of jurisprudence in Sharia): 'One who imposes upon himself a good deed it becomes incumbent upon him as long as he does not become permanently insolvent or die'.

However, this principle of the Mālikī School is applicable only if the pledge is a unilateral pledge from one party only, and this pledge is legally binding. This position is maintained also by other classical Islamic scholars, such as Al Bukhari, Omar Ibn Abdul Aziz, Al Hasan Al Basri, Ishaq Ibn Rahoya and others. The Islamic *Fiqh* Academy also see this view if the person (the Islamic bank in a *murabaha* contract) receiving the pledge has already incurred costs as part of the arrangements, which would be the case here. Hence, a unilateral promise received by an Islamic bank from its customer is binding from both a Shariah and legal perspectives.

6.3.3 *Risk Mitigation for* Murabaha *with Deferred Payment*

The promise to purchase is the most basic risk mitigation technique for Islamic banks in a *murabaha* arrangement. There are additional tools for a further reduction of risks for the IFIs:

(a) Before the *murabaha* contract is concluded, but after the customer gave a binding promise to purchase, the IFI can ask for a *hamish al-jiddiyah*. This is a security deposit which serves two purposes: First, it proves the financial capacity of the customer. Second, it ensures a compensation for any cost to the IFI in case the customer breaches his promise and the IFI has to sell the ordered asset at a price below its own acquisition costs. In case of a breach of the

promise, the IFI can deduct its actual cost from the *hamish al-jiddiyah*. The actual cost is defined as the financial loss from the "fire sale", it does not include a compensation for the forgone profit mark-up agreed between the IFI and the customer. If the security deposit exceeds the actual cost, the remaining amount has to be transferred back to the customer. If the customer fulfils his promise, the full amount of the *hamish al-jiddiyah* has to be refunded to the customer. However, the IFI and the customer can agree, for example, to use this amount as the first instalment of the purchase price.

(b) After the *murabaha* contract is concluded, the IFI may ask for an *'arbun* which is an earnest money or take a collateral to secure the outstanding payment obligations due to be paid by the customer over the finance term. This is a protection against the breach of the contract by the customer, and not of the promise, which had been kept and hence expired. Should a breach happen, the IFI is entitled to keep the full amount of the *'arbun*.

(c) The IFI may ask for a third-party guarantee for default cases. This is particularly relevant to *murabaha* arrangements with longer payment terms. These contracts usually carry a default clause: Should the customer fail to pay any instalment on time without a good reason, this is considered an event of default by which all outstanding instalments may become due. A customer who is in arrear with one instalment will certainly not be able to pay all outstanding instalments at once. This, however, is not the real objective of the clause. Instead, the purpose of the default clause is to trigger the guarantee of the (hopefully solvent) third party or have a legal recourse to the asset under the legal charge.

(d) The IFI can hold in pledge assets of the customer, such as bank accounts or fixed or moveable assets.

(e) The IFI may ask the customer to sign cheques or promissory notes at the beginning of the *murabaha* arrangement dated on the due dates of the future instalments. Since most jurisdictions are very strict on bouncing cheques or notes (while this is the case e.g. in the Middle East and the Gulf States, it is not the case in the UK and Europe), this is a strong incentive for the customer to stick to the payment schedule and to ensure sufficient liquidity when the cheques or notes are due.

Finally, it is permissible that the customer acts as the agent of the IFI under a service agency arrangement and, for example, collects and selects offers of different providers, purchases the asset in the name of the IFI. And under this agency arrangement, the customer takes delivery of the asset, in the name of the IFI, after he has satisfied himself that all specifications are met. This is another form of risk mitigation.

6.4 Value Added by IFIs Financing of the Sales Contract

In a setting where an IFI does not execute any function of a trader by itself, it is most obvious that the value added of its involvement cannot be anything but the financing of the transaction. What is legally a "profit from trade" because of the form of the

underlying contract is in its economic substance equivalent to interest in a loan contract.

Islamic banks use this argument themselves when they negotiate an exemption of the profit mark-up from sales taxes (value added tax in Europe). If the tax authorities would treat the mark-up as a profit from trade, then the sales tax would be levied on the full sales price on the invoice of the Islamic bank to its customer, including the mark-up. As a consequence, customers of IFIs would pay sales tax on the financing costs in the case of a *murabahah*, while the financing costs would be tax free in the case of a conventional interest-bearing loan. In the interest of a level playing field, several tax authorities, such as the UK have already granted an exemption from sales tax for the mark-up.

For the accounting treatment, the following is important to note:

- The asset must already be in existence, and the IFI has to take ownership of the asset, however long or short the ownership period may be.
- If the asset has to be manufactured or constructed according to the specifications of the customer, *murabahah* would not be the right type contract (but *istisna'* would be).
- The IFI has a claim against the customer for the total agreed purchasing price.
- The purchasing price has to be broken down into the acquisition costs and the mark-up, and this should be explicitly stated in the contract (and in the promise in case of a *murabahah* to the purchase orderer).
- The acquisition costs comprise the cost price paid by an IFI to the supplier and the IFI's direct acquisition costs.
- The passed-through acquisition costs are subject to sales tax while the mark-up is tax-exempt.
- The customer may pay in a lump sum in the actual period or later or in instalments according to an agreed multi-period payment schedule.

6.5 IFRS Accounting Treatment

The Conceptual Framework for Financial Reporting gives guidance to preparers of financial statements on the objective of financial reporting and the principles to be used in recognising and measuring the elements of financial statements i.e. assets, liabilities, equity, income and expenses. The principles in the Conceptual Framework inform the content of individual standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

The Conceptual Framework first identifies the objective of general purpose financial reporting as being:

> to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity, (CF para OB2).

It follows that users of the financial statements require information about the resources available to an entity and any claims on those resources.

Next, the Conceptual Framework sets out the qualities of useful financial information, and identifies that, to be useful, financial information must (i) be relevant to users and (ii) must faithfully represent the underlying economic substance of the situation. The preparer of financial statements should make decisions about what financial information to include and how to present it as follows:

1. Identify an economic phenomenon that has the potential to be useful to users of the reporting entity's financial information.
2. Identify the type of information about that phenomenon that would be most relevant if it is available and can be faithfully represented.
3. Determine whether that information is available and can be faithfully represented. (CF, para QC18)

From the principles above, it follows that in identifying and measuring the assets and liabilities of an Islamic bank, the economic substance of transactions, rather than simply their legal form, should be reflected in financial statements. In other words, an Islamic bank will recognise an asset when it has control of a resource and expects to get the economic benefits associated with that resource, rather than when it has legal title to a specific object. Thus, property purchased outright with the assistance of a loan and property obtained under a long-term lease are both recognised as assets, irrespective of differences in actual ownership, because the underlying substance of the transaction results in similar economic results in that in both cases the entity has the risks and rewards of ownership.

The definitions of the elements of financial statements are as follows:

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.

A liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

Equity is the residual interest in the assets of the entity after deducting all its liabilities. (CF para 4.4)

Income and Expenses are defined, respectively, as positive or negative changes in the net assets available to the owners of the entity, i.e. a change in financial position which results in a net increase or decrease in shareholder wealth.

Income increases economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to equity participants (CF para 4.25).

An asset or liability is recognised when (i) it is probable that the future economic benefit associated with it will flow to or from the entity; and (ii) the item can be measured reliably, with reference to cost or value (CF para 4.38).

From these principles, the importance of the concept of substance over form, disused at length herein, can be highlighted and used to further explain the rationale behind the accounting treatment of, for example, finance agreements.

In July 2013, the IAS published a discussion paper on possible changes to the Conceptual Framework, with the aim of issuing a revised Conceptual Framework in 2014. The discussion paper suggested changes to the definitions and recognition criteria of the elements of financial statements, although it is consistent with the objectives and principles established in the current Conceptual Framework. The IFRS concept of substance over form is crucial in *Murabaha* transactions, where although the Islamic bank will usually legally purchase and resell an underlying asset to its customer at a profit, they are technically only doing so as an agent of the customer. Therefore, in accordance with this view, in economic substance Islamic banks are never the real owners of the underlying asset, and therefore should not recognise the underlying asset in their financial statements. Instead the customer will usually have the exposure to the risks and rewards of the underlying (i.e., they will benefit or suffer from any increases or decreases in the value of the asset).

Thus, according to this argument an Islamic bank will recognise a financial asset under IFRS 9, which is measured at fair value based on future cash flows that they expect to receive. The customer will recognise the underlying asset, and a financial liability for the cash flows that it will pay to the bank. Whereas the lender would make a profit through charging interest in non-Shariah compliant financing transactions, under *Murabaha* the Islamic bank's profit is achieved by the difference between the cost price paid (plus any acquisition costs) and the resale price to the customer at a profit margin.

While this view could be adopted from an accounting treatment perspective, in reality it is contested by the Shariah requirements for such transactions. Shariah stipulates, as discussed above, that for a Murabaha sale to be acceptable, the bank must own with full legal title the underlying asset, before it is sold on to the customer seeking the finance at cost plus a profit margin as the sale price. This is an important and a key requirement in this transaction that is audited from a Shariah perspective in Islamic banks. In practice, the bank may appoint the customer as its agent in completing this transaction. However, the Islamic bank sells the asset to its customer as a principal.

Example 1

An IFI agrees to sell a commercial property to Client A under a *Murabaha* contract.

The IFI paid £1,000,000 for the property and incurred legal acquisition costs of £30,000.

Under the terms of the *Murabaha* contract, Client A agrees to pay the IFI £1,030,000 plus the IFI's profit margin of LIBOR plus 2%. This sum will be paid to the IFI in equal instalments over a period of 10 years. The IFI requires an upfront *hamish al-jiddiyah* (security deposit) of £103,000 once the contract has been concluded. The appropriate LIBOR rate is currently 1%.

(a) IFRS treatment

Looking at the economic substance of the arrangement the IFI is simply acting as an agent on behalf of Client A to acquire the property, given the above discussion of

using the economic substance view. The IFI would therefore not recognise any liability for finances invested by the Client. The IFI is also not exposed to the risks and rewards of the underlying asset (i.e., the customer will benefit or suffer from any increases or decreases in the value of the property) and therefore it would not recognise the underlying asset in its financial statements. It should be possible to measure the financial asset at fair value, especially if there is an active market. Under IFRS 9 any transaction costs may be added to the financial asset.

(b) Initial recognition

The IFI would recognise a financial asset under IFRS 9, with the contractual cash flows being payments of the principal amount (the cost of the property to the IFI, which is deemed to be fair value (FV) at the point of purchase £1,030,000) and the IFI's profit margin. As the contract relates to a period of 10 years, the profit margin would be recognised over that period.

(c) Subsequent recognition

In this situation the IFI should make an irrevocable decision under IFRS 9 to measure the asset at fair value through profit or loss, with subsequent fair value measurements based on a discounted cash flow measurement (based on the current LIBOR rate). The fact that the discount rate is based on a notional effective benchmark rate, i.e. LIBOR, for the purposes of valuing the financial asset should not stop the contract from being Shariah compliant.

The *hamish al-jiddiyah* would simply be recognised as a liability by the IFI, which it will hold until the completion of the contract. Assuming that the contract was entered into at the end of the year, the IFI would recognise the following lines in its financial statements, assuming a discount rate based on 3%.

Statement of financial position:

Non-current assets:	£
Financial asset measured at FV	799,756[a]
Current asset:	
Financial asset measure at FV	104,000
Non-current liabilities:	
Customer deposit	103,000

[a]Calculation of discounted cash flows to measure the value of the financial asset

In subsequent years the annual movement in the fair value of the financial asset will be recognised as either a profit or loss in the Statement of Comprehensive Income.

6.6 *Tawarruq* (Monetisation)

Monetisation refers to the purchase of a commodity for a deferred price determined through either mark-up sale (*Murabaha*) or bargaining (*Musawama*) sale, and then selling it to a third party for a spot price so as to obtain cash. It is currently the most

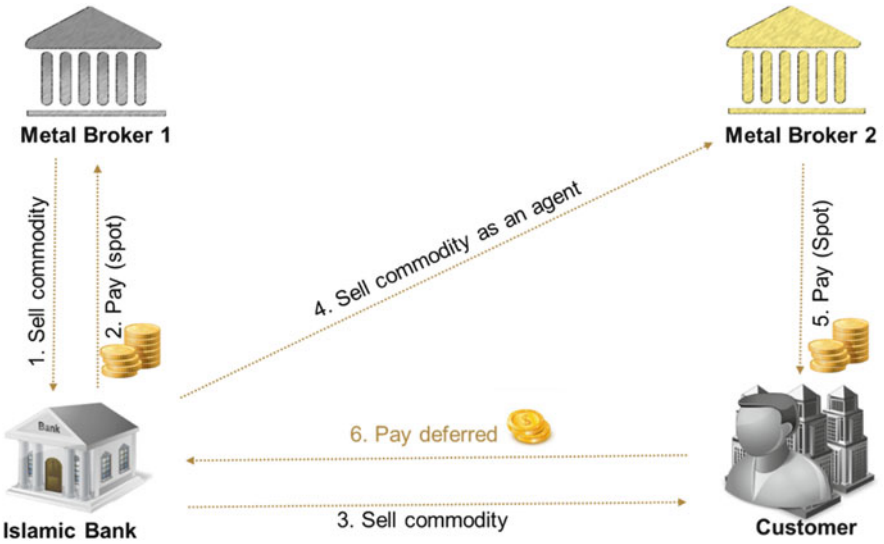


Fig. 6.3 *Tawarruq* structure

common mode of providing cash facility financing in the Islamic banking market, as an alternative for conventional interest-based personal, business and commercial loans. Figure 6.3 shows the structure of a *Tawarruq* contract, also know as a commodity *Murabaha* and reverse *Murabaha*.

6.6.1 Operational Aspects of Tawarruq

- A Customer who requires cash approaches an Islamic bank and applies for cash facility financing.
- As per customer's financing requirement the IFI assesses the customer's credit worthiness and approves the request.
- The IFI seeks an undertaking from the customer to buy the commodity from the IFI once the IFI purchases the same and takes the possession thereof. Along with other details the IFI's profit is also stipulated as a fixed amount or a percentage in the terms of the offer to the customer.
- The Islamic bank purchases any commodity available in the market, usually metal from London metal exchange or similar markets, from the vendor/broker and takes the possession thereof.
- The IFI then executes the commodity *Murabaha* agreement with its customer, which stipulates the details of the commodity, cost price, profit and the payment terms of the sales price. This leg of the transaction is exactly the same as *Murabaha*, which I discussed in the sections above (see Sects. 6.2 and 6.3).

- After purchasing the commodity from the IFI, the customer, further, sells the same commodity on spot at the cost price to a party other than the one from whom the IFI has purchased the commodity. This party must be a different broker from a Shariah perspective. This is the other leg of this transaction, which is arranged by the IFI, where the customer does not physically possess the commodity and sells it on, rather he has a constructive possession of it with a clear legal title.
- The proceeds from this spot sale generate the cash facility to the customer.
- The customer pays the *Murabaha* sale price to the IFI as per the agreed terms, usually in monthly instalments over the finance term.

6.6.2 *Key Principles of* Tawarruq *Contract*

(a) Contracting parties: The parties who are involved in a *Tawarruq* contract are the seller and the purchaser.
(b) Subject matter: The subject matter includes the commodity and the selling price. The commodity should be a real and Shariah compliant commodity. It must be owned and in possession of the seller before selling it. It cannot be gold or silver or any type of currency. The commodity must be sold to a party other than the one from whom it was purchased on deferred payment basis.
(c) Conclusion of contract: A *Tawarruq* contract can be concluded by means of meeting or exchanging the offer and acceptance in any customary form of modern communication. However, the contract for purchasing the commodity between the purchaser and the seller on deferred payment basis should be independent of the contract of spot sale between the purchaser and the third party. In addition, the purchaser can neither delegate the seller or its agent to sell, on its behalf a commodity that it has purchased from the same seller, nor should the seller arrange proxy of a third party to sell on behalf of the purchaser, the commodity that the purchaser purchased from the seller. The seller should avoid proxy in selling a *Tawarruq* commodity, even if proxy is to be arranged with a third party.

Based on the ruling of the OIC (Organisation of Islamic Countries) Fiqh Academy, *tawarruq* can be categorized into two types: *tawarruq fiqhi* (or classical *tawarruq*) and organized *tawarruq* (*tawarruq munazzam*). The first type of *tawarruq* is defined as a person (*mustawriq*) buying merchandise at a deferred price in order to sell it at a lower price for cash. Usually, he sells the merchandise to a third party with the aim of obtaining cash. On the other hand, 'organized *tawarruq*' is defined in the same ruling as "when a person (*mustawriq*) buys merchandise from a local or international market on a deferred price basis. The financier arranges the sale of the commodity either directly or through his agent and forwards the sale proceeds to the customer.

The OIC Fiqh Academy has permitted the classical *tawarruq*, provided that it complies with the Shariah requirements regarding sale contract (*bay'*), and considers the 'organized *tawarruq*', which is used by Islamic banks today to offer financing

facility to customers for managing their short-term liquidity, to be impermissible. There are also a few scholars who have disapproved *tawarruq* mainly on the aspect of intention. They argue that the intention here is to procure money, which could be tantamount to the sale of money against a different amount of money, while the asset serves only as a medium; an acquisition which is not primarily intended. In addition, the principle of closing avenues to the prohibited (*sadd al-dzarai'*) is also another important argument cited in support of the illegality of *tawarruq*. However, a few other scholars from various schools of thought appear to have considered *tawarruq* to be legally permissible, AAOIFI permits the second type of *tawarruq* and issued a Shariah standard for it (Standard No 30). Scholars who have upheld the permissibility of *tawarruq* have fundamentally relied on the general connotation of the verse permitting sale while prohibiting usury. *Tawarruq* is used by Islamic banks typically to provide products, such as personal, business and commercial finance, working capital finance, development finance, credit card and commercial property finance.

6.6.3 IFRS Accounting Treatment of Tawarruq

I would recall here the same discussion that was outlined in the above sections earlier (Sect. 6.5) regarding the accounting treatment of *Murabaha*, as the same principles apply to *tawarruq* (commodity *murabaha*). It is acknowledged that *tawarruq* is a variation of *murabaha* contract and carries the same economic and accounting profile. Therefore, I will just provide a summary of key aspects from my discussion in Sect. 6.5 above to avoid repeating the same discussion in this section too. The principles of the importance of the concept of substance over form, disused at length earlier, can be highlighted and used here as well to further explain the rationale behind the accounting treatment of the *tawarruq* finance agreements.

Commodity *murabaha* receivables are recognized upon the sale of the commodity to the customer. Income on commodity *murabaha* receivables is recognised on an effective yield basis. The effective yield rate is the rate that exactly discounts the estimated future cash payments and receipts through the agreed payment term of the contract to the carrying amount of the receivable. The effective yield is established on initial recognition of the asset and is not revised subsequently. Unless a revolving commodity *murabaha* structure is used, where subsequent transactions follow from the initial drawdown of the financing arrangements in certain intervals quarterly, semi-annually or annually. This would be in accordance with the benchmark used to determine the profit margin i.e. LIBOR 3, 6 or 12 months. This structure is usually used to manage profit rate risk exposure.

The calculation of the effective yield rate includes all fees paid or received, transaction costs, and discounts or premiums that are an integral part of the effective yield rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or liability. Commodity *murabaha* receivables are initially recorded at fair value and are subsequently measured at

amortised cost using the effective yield method, less impairment losses. The accrued income receivable is classified under other assets in the financial reporting statement.

6.7 Salam

In pre-Islamic times, traders used their own capital to pre-finance the production of generic goods (fungibles), in particular seasonal goods such as agricultural produce. They bought the future production (harvest) and paid a price now, which was less than the expected spot price at the time when the production would reach the market. Prophet Muhammad (pbuh) accepted this type of contract (called "*salam*"), but he specified certain conditions to make a *salam* contract valid. The contract has to be in writing and all essential features have to be fixed, such as the kind of goods, their quality and quantity, the terms of delivery (on a fixed date or within a range of dates) and the price to be paid when the contract is concluded. This is to avoid uncertainties which could lead to disputes.

Bai' al-Salam, also known as *Bai' al-salaf* or *Bai' al-mafalisa* is the purchase of a commodity for deferred delivery in exchange for immediate payment. It is a type of sale in which the price, known as the *salam* capital, is paid at the time of contract while the delivery of the item to be sold, known as *al-Muslam Fihi* (the subject matter of a *salam* contract), is deferred. The seller and the buyer are known as *al-Muslam Ilaihi* and *al-Muslim* or *Rab al-salam*, respectively (Billah 2006).

In the Quran Allah says: "O you who believe! When you contract a debt for a fixed period, write it down. . ." (Quran, 02:282). The legitimacy of this contract is also derived from the Sunnah, Ibn Abbas (ra) narrated: that the Prophet (pbhu) came to Medina and the people used to pay in advance the price of fruits to be delivered within 1 or 2 years. (The sub-narrator is in doubt whether it was 1–2 years or 2–3 years.) Prophet Muhammad (pbuh) said, "whoever pays money in advance for dates (to be delivered later) should pay it for known specified weight and measure (of the dates)." (Al-Bukhari 1985, Hadith No. 441). In another version, Ibn Abbas (ra) narrated that Prophet Muhammad (pbuh) came to Medina where people used to pay in advance the price of dates to be delivered within 2 or 3 years. He said (to them), "whoever pays in advance the price of a thing to be delivered later should pay it for a specified measure at a specified weight for a specified period." (Al-Bukhari 1985, Hadith No. 443).

Salam contract is known to be an exception to the principles of sale contracts as it does not meet the general Shariah rule that sates "you must not sell what you don't own". Some jurists argue that this rule is only relevant for goods that are available in the market. They must be owned before they can be sold, while goods that are not available in the market cannot be owned before they are sold. Other jurists would consider *salam* contract as an exception from this general rule, which can be justified as follows: The rationale for the prohibition to sell objects which one does not own is to prevent speculation, fraud and disputes because one party cannot fulfil its contractual obligations. In case of seasonal agricultural products, these goods may not

Fig. 6.4 Structure of a *salam* contract

be available on the market during certain times, but they regularly come to the market after harvest, provided the farmers are in a position to acquire the necessary inputs for their production.

The need of a pre-financing of the production is recognized. Then there is a high probability that seasonal goods will become available under normal circumstances, and therefore also a high probability that a contract for the delivery of a quantity of fungibles i.e. generic goods, such as wheat of a certain quality, but not specific goods such as wheat from a particular field or farmer can be fulfilled. Therefore, the *salam* contract with its specific stipulations meets the intentions of the general principle and can be accepted as an exception from this Shariah rule. Figure 6.4 depicts the typical structure of a *salam* contract as financing arrangements practiced by IFIs. *Salam* contract as an Islamic finance principle is applied by Islamic banks to provide working capital, business finance and financing for agricultural production.

6.7.1 Important Aspects of a Salam *Contract*

(a) Contracting Parties: The parties who are involved in a *salam* contract are the seller (*muslam Ilaihe*) and the purchaser (*the muslim*) (Marifa 2014; Al-Zuhaili 2003).

(b) Subject matter of *salam*: The subject matter of *salam* includes the object and the price. (i) Object: the object of a *salam* contract can be goods that may be weighed, measured or counted and not permitted to be an identified and specific thing like “this rice” or cannot be stipulated as a produce of specific piece of

land. The *salam* object is also not permitted to be any article which cannot be delineated in terms of their description like jewellery and antiques. It must be the kind of article for which a specification may be drawn up properly, so that the seller may be held responsible for its conformity to the specifications and be commonly available under normal circumstances at the place where it should be on the delivery date. The purchaser cannot sell the subject matter before taking possession of it except through a parallel *salam* contract. (ii) Price: the price for *salam* goods can be in the form of goods, such as wheat and other cereals, or items of material value such as livestock. It can also be in the form of a usufruct from certain assets, but it must be known to the contracting parties and must be paid in full to the seller at the time of concluding the contract (Marifa 2014; Al-Zuhaili 2003).

(c) Conclusion of Salam: Like other sale contracts, a *salam* contract can be concluded by offer and acceptance. However, it may be concluded using the word *salam* or *salaf* or sale or any term that indicates sale of a prescribed commodity for deferred delivery in exchange for immediate payment of the price. It can be initiated through several agreements/transactions or can be initiated by drawing a general framework and a master agreement (Marifa 2014; Al-Zuhaili 2003).

(d) Delivery of the subject matter: The date of delivery for *salam* goods must be specific and must be known. The seller must deliver the *salam* goods to the purchaser on the due date and the purchaser must accept the goods if they meet the specifications. If the quantity and quality of the *salam* goods is superior to that required by the contractual specifications, the purchaser must accept the goods unless the seller seeks a higher price (Marifa 2014; Al-Zuhaili 2003). If it is inferior, then the purchaser has the option to either reject or accept the goods. The delivery of *salam* goods may take place before the due date. If the seller fails to perform his obligation, due to insolvency, for instance, the seller can be granted an extension of time for delivery. However, no penalty clause shall be included in respect of delay in the delivery. In case all or part of *salam* goods is not being available to the seller on the due date, the buyer may wait until availability or may cancel the contract and may also replace the *salam* goods by other goods (AAOIFI, Shariah standard No. 10).

6.7.2 Salam*: Flexible Financing Arrangement*

Most textbooks on Islamic finance present *salam* as one contract which can be used by Islamic banks to finance the production of fungibles in general, and agricultural produce in particular. By *salam* IFIs can provide short to medium term working capital to producers who can use the funding in a flexible manner for all their pre-financing needs. This flexibility is an advantage over a *murabahah* financing which is always tied to a specific object. However, this instrument has serious limitations for IFIs, which see themselves as financial institutions and not as trading houses.

AAOIFI has covered *salam* in its Shariah Standard No. 10. The most important stipulations for valid *salam* contracts are as follows:

- A *salam* is the purchase of a commodity for deferred delivery in exchange for immediate payment. The delivery can be made in instalments, however the payment has to be made in full when the contract is signed (latest after 3 days).[2]
- The subject matter of a *salam* contract must not be a specific object (such as dates from a specific farm). It has to be a fungible commodity (such as dates of a particular quality). Only then *gharar* (uncertainty) with regards to possibility of fulfilment of the contract (i.e. of delivering the subject matter) is reduced to a tolerable level. Fungible commodities are usually traded on secondary markets, often even on organized exchanges.
- The scope of *salam* has been extended from agricultural commodities to manufactured fungibles and trade, i.e. it can also be used in other investment opportunities.
- The buyer can ask the seller to provide a security for the fulfilment of his contractual obligations. This may be a pledge, a mortgage, a third-party guarantee or any other acceptable form or security. If the seller does not deliver, the buyer may take recourse to the securities.
- If the seller cannot deliver on time from his own production, but the fungibles are available in the market, then the buyer can request the seller to purchase from the market and to deliver even if the seller suffers a loss from this transaction.
- In case of a delay of the delivery, the buyer has no right to charge a penalty.
- In case of a delay, the buyer may either wait until delivery is made later, or he can cancel the contract and claim a refund of the prepaid money. This is of particular relevance if generic goods of the contracted kind have not become available in the market. The refund is an obligation of the seller, and therefore the buyer may take recourse to the securities.

The price paid when the contract is signed is typically lower than the expected spot price at the time of delivery. This should allow the financier to make a profit from the sale of the commodity after it is delivered.

6.7.3 Risk Profile of Salam

It is apparent from the terms of the *salam* contract, that an IFI using it as an instrument for the financing of working capital is not only exposed to the usual credit risk of the financed party (counterparty risk), but there are in addition specific risks associated with the underlying commodities (market risks).

[2]If only a certain portion were paid immediately and the remainder later, then the remainder would be a debt of the buyer with which he bought the debt of the seller (= the obligation to deliver the community at a future date). This is tantamount of a sale of debt against debt which is expressly prohibited.

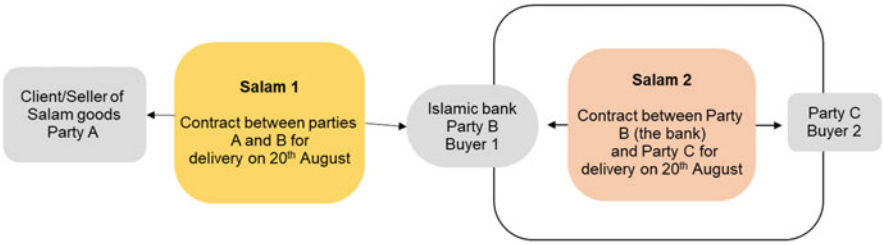


Fig. 6.5 Parallel *salam* structure

- There is a risk that the commodities are not delivered on time or with some defects. This implies that the financing is used for a longer period than initially assumed (when calculating the purchase price) without any compensation for the financier.
- Once the commodities are delivered, the bank has to sell them in the market. There is a risk of adverse price movements. The spot price on the day of delivery may be less than anticipated when entering into the *salam* contract. If, therefore, the IFI decides to hold the commodity in anticipation of a higher price in the future, it is exposed to a market risk (price risk).

Since a bank is a financial institution and not a trader, efforts are made to mitigate the commodity related risks. The basic idea is to sell the purchased commodities as soon as possible, ideally immediately after they have been purchased, at a predetermined price. This is the objective of "parallel *salam*" and "hybrid *salam*" structures.

(a) Parallel *salam* as a hedging technique

While the previously characterized "ordinary" *salam* has been covered in the classical books of Islamic law, a modification in its application is a recent innovation of Islamic banks, namely the back-to-back combination of two separate *salam* contracts in a "parallel *salam*". In this type of *salam* structure, the IFI as the buyer in a first *salam* contract enters as a seller into a second *salam* contract with a third-party buyer, who must be independent of the seller of the first *salam*. Figure 6.5 shows the structure and relationship between the different parties to the parallel *salam* arrangement. It is assumed that both contracts are concluded at the same point in time, t_0.

Parallel *salam* has evolved as a tool for Islamic banks to manage cash and arrange exits or hedge positions (exposures to commodity price risk) in buying commodities from the market. Under a *salam* arrangement, an IFI ends up owning the goods, so most regulatory regimes require that there must be a parallel sales agreement in place prior to completion. This is usually outright purchase by a customer of the supplier, but could be a mechanism delivering cash to the IFI in exchange for the goods at the scheduled maturity. The supplier usually acts as agent for the IFI to arrange an onward sale to its customers, with payment collected in favour of the IFI by a letter of credit or other means. The trader will enter into a parallel sale secured by a promissory note, letter of credit or another *salam* agreement. This transaction,

sometimes viewed as a form of *tawarruq*, cannot be used to buy back the object of the original *salam* contract (Rahman 2012).

This solution has two serious shortcomings.

- While the IFI hedges its price risk, it assumes another market risk. Shariah requires that the two *salam* contracts are not conditioned upon each other. Each contract is independent of the other and has to be fulfilled irrespective of the status of the other contract. Hence, it may be that the commodities purchased in the first *salam* are not delivered on time by A so that the IFI has to purchase the goods from the market in order to meet its delivery obligation against C. This may end in a loss if A finally delivers (without compensation for the delay), but the IFI can sell the commodities only at price less than what it had paid before when it had to buy from the market. In addition, the financial resources of the IFI are tied for longer periods than anticipated, which implies opportunity costs.
- The second problem is that it may be difficult to find a partner for the second *salam.* The IFI has to find another party, which is (1) willing to pay a higher price than the IFI and (2) is willing and able to pay the full amount on spot. It would be very plausible to assume that such a party C, would directly approach A and enter into a direct *salam* with him.

With some imaginative power one can envisage situations where C buys the commodity from the IFI instead of directly from A. Such constellations become more plausible if some time elapses between the first and the second *salam* and the expectations regarding the future spot price of the IFI diverge from those of the new *salam* buyer. But even then, a parallel *salam* is far from an effective hedge against the market risk of the original *salam*. Therefore, Islamic banks have searched for better alternatives, and they have developed a structure that has been termed "hybrid *salam*".

(b) Risk mitigation by hybrid *salam*

A better (albeit not perfect) hedging structure is the combination of a *salam* with a promise (*wa'd*) and a *murabahah* with deferred payment. The structure is depicted in Fig. 6.6. After the IFI has concluded the *salam*, it enters into the following arrangement with a buyer C who is interested in the commodities in t_1:

- C would buy *salam* commodities from the IFI only in t_1, since the IFI does not own the commodities before that point. But C can give the IFI a promise (*wa'd*) in t_0 that he will buy the commodities at a price agreed upon in t_0 (for example, the expected spot price in t_1). The IFI accepts the promise and, in relying on this promise, refrains from any further efforts to hedge its position, such as searching for a parallel *salam* partner. This should make the promise binding for C. There is no obligation for C to pay the purchasing price in advance, but the IFI may ask for a down payment.
- At the date of delivery t_1, the IFI and C enter into a sales agreement. Since the commodities are now in existence and owned by the IFI, *a murabahah* would be the right form of contract.

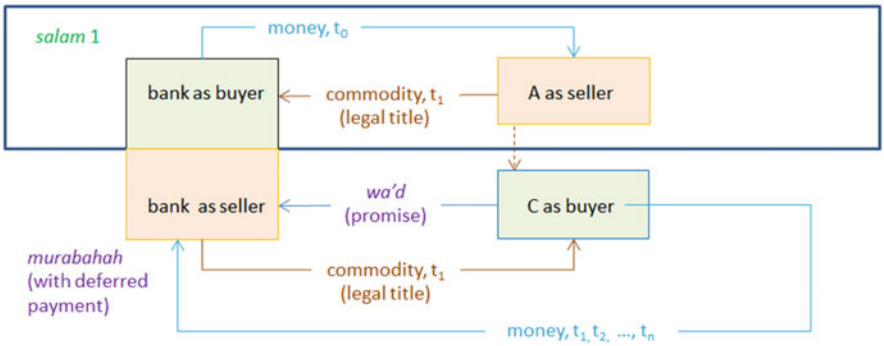


Fig. 6.6 Hybrid *salam* structure

- A *murabahah* contract allows for a deferred payment. Thus, the IFI and C can agree, for example, that C will pay in instalments proportionate to his proceeds from the sale of the commodities.

Such a hybrid structure (*salam* plus *wa'd* plus *murabahah*) can be adjusted very flexibly to the needs of the contracting parties. The *salam* seller A gets flexible working capital (as in the simple or parallel *salam* case), the IFI can hedge against the price risk without additional market risks resulting from a second *salam* contract, and the final buyer does not have to pay the full amount in advance, which may be difficult for a non-bank, but can pay in agreed regular instalments.

6.7.4 IFRS Accounting Treatment of Salam

As noted above, *salam* contracts allow IFIs to provide flexible working capital finance to producers. At the time of entry into the contract, the seller has received cash and has the performance obligation, i.e. to deliver the specified goods in question. Accordingly, the seller would recognise both an asset (cash received) and a liability (the performance obligation) of the same amount. At this point no profit or loss would normally be recognised. As in the situation discussed in the sections above, the IFI will recognise a financial asset under IFRS 9 based on the future cash flows the IFI expects to receive.

Example 1: ***Salam Financing Arrangement***
The following example illustrates a contract over a short period of time. Company A requires finance to cover the period in between starting production and final sale.

On 1 January Company A agrees to sell goods to Bank B for an amount of £440,000, for delivery on 1 August. A estimates that the market value of the goods on 1 August will be £450,000. B intends to sell the goods to a third party, Customer C, on 1 August for £450,000.

On 1 January, A will record the cash received as an asset, and also the obligation to deliver the goods at a later date. At this point no revenue is recognised and no profit is recognised. The revenue can only be recognised after A has discharged its liability (in IFRS terminology, the income occurs when there is a reduction in liabilities caused by the performance of the obligation).

This accounting treatment is consistent with the principles in the Conceptual Framework as discussed above, and is also in accordance with IAS18 Revenue. Revenue should be recognised when (i) it is probable that the future economic benefit will flow to the entity; and (ii) it can be measured reliably (CF para 4.38). IAS 18 provides detailed guidance on when an entity should recognise revenue:

- the seller has transferred to the buyer the significant risks and rewards of ownership;
- the seller retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the seller; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably. (IAS18 para 14)

As in the example in section above, the bank will recognise a financial asset under IFRS 9, measured at fair value. The difference between the £440,000 as the finance amount for the working capital provided to A, and the $450,000 the price received by the bank from C for the goods represents the bank's profit margin. This profit margin will be recognised over the period 1 January to 1 August, assuming that the commodity in question increases in value over this period.

Example 2

Having discussed the accounting treatment for Example 1 above, I would now take this discussion further in the next example. Example 2 illustrates the IFRS treatment of a transaction under which receivables are used to secure short-term finance, and, this example also illustrates the importance of substance over form.

Company D has a reporting date of 31 March. On 28 February, D sells receivables with a carrying amount of £30,000 to Bank E for £24,000. Under the terms of the agreement D has to compensate E if any of the customers default and D has the option to repurchase the receivables for £24,347 on 30 April.

While it may appear that D has sold receivables, the substance of the transaction is that it is obtaining short-term finance using receivables as security for the finance. Bank E never obtains the risks and rewards of ownership of the assets in question (in this case the receivables). Rather, D retains the risks and rewards of ownership of the asset since it has to make good any losses incurred due to late payment or default by its customers.

The fact that the sale price is so far below the market value of the asset also suggests that this is not a real sale; furthermore, the option to repurchase the asset for an amount significantly below its market value is almost certain to be exercised.

The transaction is therefore represented as a short-term loan from IFRS perspective, where D:

- does not derecognise the asset (the receivables),
- recognises the cash received on 28 February, and
- recognises the liability incurred at the same time (i.e. the obligation to repay the outstanding due amount).

The difference between the cash received on 28 February and the amount repaid on 30 April will be represented as a finance expense (similar to the interest on a conventional loan).

The effective annual rate of profit can be calculated as 9% ($1 + r = (£24{,}347/£24{,}000)^6 = 1.09$). The carrying amount of the finance at the reporting date can then be calculated as $£24{,}000 \times 1.09^{1/12} = £24{,}173$. The increase in the liability of £173 is shown as a finance expense for the financial reporting year ending 31 March. The difference between the cash received on 28 February and the amount repaid on 30 April will be total finance expense over the life of the agreement.

The accounting entries for D will be as follows:

28 February	
Dr Cash	24,000
Cr Finance	24,000
31 March	
Dr Finance expense	173
Cr Finance	173
30 April	
Dr Finance expense	174
Cr Finance	174
Dr Finance	24,347
Cr Cash	24,347

The financial statements for the year ended 31 March will show the following amounts.

Statement of Financial Position

Current Assets	
Trade and other receivables	24,000
Current Liabilities	
Finance	24,173
Income Statement	
Finance expense	173

This accounting treatment will affect the assets and liabilities shown in the financial statements as at 31 March. Both will be higher than if the transaction had been recognised as a sale.

The accounting entries for E will be as follows:

28 February	
Dr Customer finance (asset)	24,000
Cr Cash	24,000

(continued)

31 March	
Dr Customer finance (asset)	173
Cr Income	173
30 April	
Dr Customer finance (asset)	174
Cr Income	174
Dr Cash	24,347
Cr Customer finance (asset)	24,347

6.8 Istisna'

The word *Istisna'* is a derivative from the root word '*Sana'a*, which means to manufacture or to construct something'. *Istisna'* is a contract of sale of specified items to be manufactured or constructed with an obligation on the part of the seller to deliver them to the purchaser upon completion. AAOIFI Shariah Standard No. 11 defines *istisna'* as "a contract of sale of specified items to be manufactured or constructed, with an obligation on the part of the manufacturer or builder (contractor) to deliver them to the customer upon completion."

The legal legitimacy of *Istisna'* is based on the *Hadith* narrated by Jabir (ra): A woman said, "O Allah's Apostle! Shall I get something constructed for you to sit on as I have a slave who is a carpenter?" He replied, "Yes, if you like." So, she had that pulpit constructed. (Al-Bukhari 1985, Hadith No. 440).

6.8.1 Key Aspects of Istisna' *(Manufacturing Contract)*

(a) Contracting Parties: The conditions for the contracting parties for *Istisna'* are the same as those of a regular sale contract. Therefore, the contracting parties must be competent by having legal capacity, i.e. they must be adults, mature and sane. Under this contract the seller is called "*Sani*'" while the buyer is described as '*Mustasni'* (Marifa 2014; Al-Zuhaili 2003).

(b) Subject matter: The subject matter of a contract of this type includes the object and the price. (i) Object: the object of an *Istisna'* contract must be identified raw materials that can be transformed from their natural state by a manufacturing or construction process involving labour with unique descriptions. The object of *Istisna'* cannot be an identified existing capital asset or goods. The *Istisna'* goods can be produced by the seller using its own resources or resources of other manufacturer or producer, this should be according to the specifications and within the period agreed upon with the *Mustasni'* (purchaser). The *Istisna'* contract can be drawn for real estate development on designated land owned either by one of the two contracting parties or by both. (ii) Price: The price for

Istisna' goods must be known at the completion of the contract. The price could be in cash or tangible goods or the usufruct of an asset for a particular duration. Even the usufruct of *Istisna'* goods themselves could be the price of the contract. Moreover, the price may be deferred or paid in instalments within a certain period of time according to phases or stages of completion of work. The seller can demand *U'rboun* (down payment) and/or a guarantee from the purchaser against meeting his payment obligations. In turn, the purchaser may demand from the seller to provide a performance guarantee, or the advance payment guarantee if any amount of *Istisna'* price is paid in advance (Marifa 2014; Al-Zuhaili 2003).

(c) Conclusion of contract: An *Istisna'* contract would be concluded by an offer and acceptance between the seller and a purchaser, even before the seller assumes the title to the *Istisna'* goods to be sold to the purchaser. Since a contract of *Istisna'* is binding, the parties to the contract are inevitably bound by all obligations and consequences flowing from their agreement and the contract can only be terminated by mutual agreement of the parties. If the *Istisna'* work, however, has not commenced, either party may terminate the *Istisna'* contract unilaterally. The seller cannot stipulate in the contract that it is not liable for defects. After the conclusion of an *Istisna'* contract, the seller and the purchaser can mutually agree on amending or making new specifications and changing the *Istisna'* price previously agreed upon accordingly. A contract of *Istisna'*, by mutual consent of the parties, can include a clause to the effect that if any additional conditions are inserted into the contract at a later date, the extra expenses will be borne by the purchaser (Marifa 2014; Al-Zuhaili 2003).

(d) Supervision of the execution of contract: A technically experienced consulting firm may be appointed by the purchaser for ensuring whether the subject matter of an *Istisna'* conforms to the contractual specifications. The additional costs of supervision can be borne by either party as mutually agreed (Al-Zuhaili 2003).

(e) Delivery of the subject matter of *Istisna'*: Delivery of *Istisna'* goods can take place before the due date or on the due date or may take place through constructive possession by enabling the purchaser to take control over the subject matter after the completion of the production process. If the *Istisna'* goods do not conform to the contractual specifications at the time of delivery, the purchaser has the right to reject them. The seller is discharged from liability once the *Istisna'* goods are delivered (Al-Zuhaili 2003).

The chronological character of *istisna'* is the same as in *salam*. It is a sales contract for an object that does not yet exist when the contract is signed. Therefore, it requires a precise written specification of the subject matter of the contract, of the terms of payment, delivery, etc. Figure 6.7 shows the structure of an *Istisna'* contract.

Apart from these similarities, there are two important differences:

- The subject matter of the contract is not a generic commodity (fungible), but a specific object which is not readily available on the market. This object has to be manufactured or constructed by one party of the *istisna'* (the developer) according to the specification of the other party (the orderer/purchaser). Examples

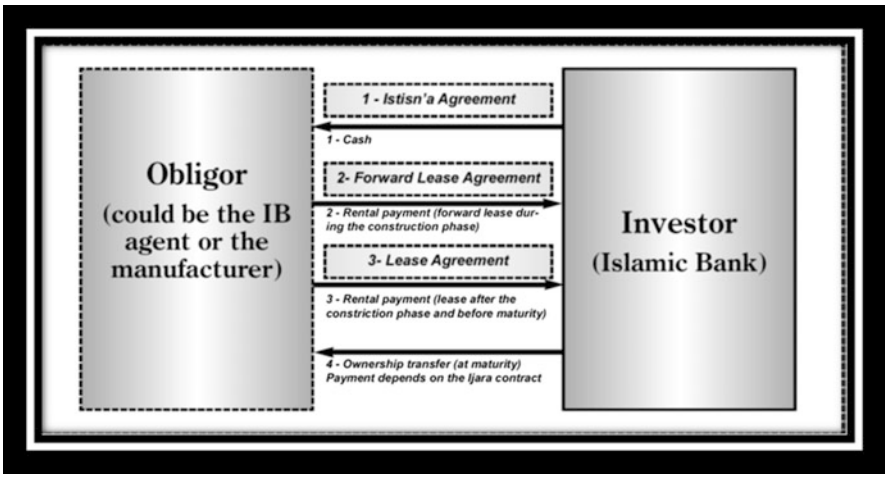


Fig. 6.7 Structure of an *Istisna'* contract

for such specific objects are the manufacturing of a specialized machine, the assembly of a car with a customized equipment, or the construction of a building according to the blueprint of the customer. The subject matter of *istisna'* cannot be an asset that does already exist; for existing assets, *murabaha* would be the appropriate sales contract.

- Unlike in a *salam* contract, *istisna'* does not require the full payment of the purchasing price when the contract is signed. The contracting parties of an *istisna'* are free to negotiate the terms of payment as they prefer. For example, the payment can be on spot, in progress-related instalments, in one amount on delivery, or on a deferred payment basis after delivery.

The classical Islamic jurist Sanhoury, following the views of the Maliki, Shafi'i and Hanbali schools, viewed *Istisna'* as a variant of *Salam* but used for the financing of manufacturing or construction (Hasan 2011). The freedom to structure the terms of payment make *istisna'* a particularly flexible instrument for the medium to long-term financing of fixed assets under construction, for project financing and for real estate development. It should be noted that home financing schemes and modern build-operate-transfer (BOT) arrangements can be replicated by *istisna'* structures. But, all this usually requires a somewhat more complex contractual arrangement beyond the "original" or simple *istisna'* outlined here.

6.8.2 *Parallel* Istisna' *Structure*

Parallel *Istisna'* is usually applied because either the IFI is unable to manufacture the assets or unwilling to hold them after completion. Therefore, the IFI enters into two mutually independent *Istisna'* contracts with the same product specifications. The

difference in price between the two contracts is the spread or margin earned by the IFI. Neither contract is dependent on the other in a direct manner. Thus, if the manufacturer fails to deliver according to agreed specification, then the IFI is at risk of defaulting. An *istisna'* contract does not necessarily imply a financing component because it does not require a pre-payment of the manufacturing or construction (Rahman 2012).

It can, however, have a financing component for the manufacturer/constructor if the orderer/purchaser (customer in the second *istisna'* contract) makes payments (for example in t_0 and t_1) before the object is completed and transferred to him in t_2 when he makes the final payment. However, a typical situation is that the orderer/purchaser does not have enough financial resources to make prepayments or pay the full price at the date of the transfer of ownership. Instead, he plans to use the manufactured or constructed object for his business and generate a cash flow from its use, which allows a post-payment of the manufacturing or construction in the future. Developers cannot wait that long before they recover their expenses and earn a profit. Therefore, *istisna'* contracts typically require an IFI financing of the customer in order to enable payments to the developer during the construction or manufacturing period before completion. This transaction is shown in Fig. 6.8.

This financing arrangement is realized by the combination of two *istisna'* contracts. Unless it is explicitly stipulated otherwise, the contracting party who is responsible for the manufacturing or construction of the object do not have to do the work by itself, but can commission another party to do this work. Hence, the IFI

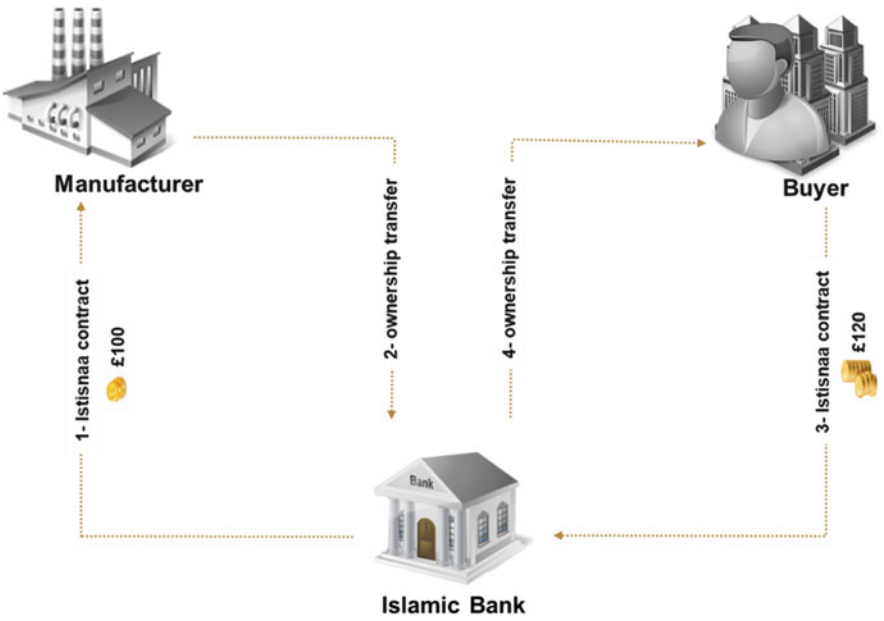


Fig. 6.8 Structure of a parallel *Istisna'* contract

(once it has approved the plans of the customer) enters into a second *istisna'* contract with a company that will do the physical development according to the specifications of the IFI, which are identical to the specifications of the customer (Hassan et al. 2013).

Since the parties in an *istisna'* are free to determine the terms of payment by mutual agreement, a plausible scenario is the following:

- The IFI as the buyer in the *istisna'* between the IFI and the developer will agree to pre-payments during the manufacturing/construction process according to its progress, for example at the beginning in t_0 and later at t_1. The object will be completed and transferred at t_2, and the IFI makes a final payment, after it has satisfied itself that the object meets all the specifications, in t_2. Thus, the IFI has financed the developer respectively the manufacturing/construction process.
- The IFI as the seller in second *istisna'* may agree with the customer that he will make a first payment only when the IFI delivers the object (transfers the legal title) to him in t_2, and from then on in regular instalments until the full payment is paid in t_n. Hence, the IFI has financed the customer who is the orderer and user of the object.

The purchasing price paid by the IFI to the developer will be less than the selling price to the orderer/customer, and the difference between these two prices constitutes the profit of the IFI from the parallel *istisna'* transaction.

6.8.3 Risk Exposure of Istisna' *Financing*

An IFI as a seller of a financed asset has to bear a counterparty risk (credit risk). It is exposed to the financial strength of the buyer of the financed object on the one hand, but also to the capability of the engaged contractor on the other hand. It is common that an IFI requires collateral, such as the title deeds of the underlying asset. In case of specialized assets which are only of limited use for buyers other than the IFI's customer, other or additional collateral or third-party guarantees may be required by the IFI. The IFI may also satisfy itself that the customer and the contractor do not depend predominantly on the cash flows of the underlying asset or project. If that is the case, the IFI faces a "revenue risk"; as Its own revenues depend on the cash flow generated from the sales of the output or services of the financed asset. Build-operate-transfer (BOT) projects, such as the construction of a toll road are usually of this type.

IFSB's exposure document 15 (para. 322) points to the completion risk which an IFI assumes in an *istisna'* contract as the seller, namely the risks of a failure to complete the project at all, delay in completion, cost overruns, occurrence of a force majeure event, and unavailability of qualified personnel and reliable seller(s) or sub-contractors, including any late completion penalty payable to the ultimate customer due to non-fulfilment of required specifications. For risk mitigation, an IFI may try to shift these risks as far as possible to the contractor by including

respective clauses in the *istisna'* contract between the IFI and the contractor. However, this *istisna'* and the one between the IFI and the ultimate buyer are separate, so that a considerable risk remain with the IFI.[3]

6.8.4 *IFRS Accounting Treatment of* Istisna'

The underlying transaction of an *istisna'* can be described as a construction contract and would be accounted for under IAS 11 Construction Contracts. Under IFRS, a construction contract is defined as: a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use (IAS 11 para 3).

From the point of view of the developer, contract revenue should include the amount agreed in the initial contract, plus amounts arising from variations from the work originally planned, plus any expected claims, incentive payments etc. Contract costs should include costs that relate directly to the contract, or that are general but can be reasonably allocated to the contract, including any costs that can be recharged to the customer in accordance with the contract terms. (IAS 11 paras 11, 16).

Revenue and costs will be recognised over the life of the contract, which is likely to be longer than one accounting period, and the amount recognised at any one time will reflect the stage of completion of the contract. In general, revenue and costs can be recognised when the outcome of the contract can be reliably predicted. The recognition of revenue and expenses by reference to the stage of completion of a contract is often referred to as the percentage of completion method. Under this method, contract revenue is matched with the contract costs incurred in reaching the stage of completion, resulting in the reporting of revenue, expenses and profit, which can be attributed to the proportion of work completed. (IAS 11 para 25).

IAS 11 also requires disclosure of the methods used to determine the contract revenue recognised at the stage of completion of construction contracts in progress.

Example

Customer A requires construction and fitting out of a building and Developer B has been awarded the contract for construction and fitting out. The contract start date is 1 April Year 1. The total contract price is £63m and B has estimated total costs as £48m. B is preparing financial statements for the year ended 31 December Year 1 and has the following information.

[3]For example, an *istisna'* contract may stipulate penalties for late completion, but from a Shariah perspective penalties are allowed only as a disincentive against deliberate delays, but not as a compensation for cost of funding, lost opportunity or financial damages of the other contracting party.

	£m
Agreed value of work completed to date	44.1
Costs incurred to date	36.0
Payments received from customer	34.5
Revised estimated total costs	54.0
Revised estimated total profit (63–54)	9.0

At the reporting date of 31 December, B would estimate the percentage completion of the contract in order to determine the amounts to be shown in the financial statements. There are two alternative methods to do so:

(1) contract costs method
(2) certified sales value method

(1) Contract costs method
The contract is estimated to be 67% complete.
Costs incurred to date/Total costs = 36.0/54.0 = 67%.

	£m
Revenue (67% × 63)	42.0
Cost of sales (42.0 – 6.0)	18.0
Profit (67% × 9)	6.0

(2) Certified sales value method
The contract is estimated to be 70% complete.
Value of work to date/Total contract value = 44.1/63.0 = 70%

	£m
Revenue	44.1
Cost of sales (costs incurred)	36.0
Profit (44.1 – 36.0)	8.1

6.9 Ijarah

The term "*ijarah*" is usually equated with conventional leasing, but it has a wider meaning. It is, in legal terms, a sale of a usufruct (benefit) or of a service. The basis of the Islamic finance principle of *ijarah* is derived from the Quran, Allah says: "And said one of them (the two women): "O my father! Hire him! Verily, the best of men for you to hire is the strong, the trustworthy." (Quran 28:26), and ". . .If you had wished, surely, you could have taken wages for it (in the context of lease of service)!" (Quran 18:77). According to AAOIFI Shariah Standard No.9, it is also supported by the saying of the Prophet Muhammad (pbuh) that, whoever hired a worker must inform him of his wages; And his saying: "give a worker his wages before his sweat (body odour) is dried".

The Islamic law differentiates between the sale of assets and the sale of usufruct.

- The sale of assets means a permanent transfer of ownership from one party to another.
- The sale of usufruct means a temporary transfer of (abstract and intangible) benefits. First, usufructs can be derived from the use of properties, which are owned by one party but possessed and used by another party (Billah 2006). For example, a house or car are owned by one party, but they can be used (i.e. occupied in the case of the house or driven in the case of the car) by another party who possesses these properties. A usufruct can only be drawn from such properties which do not perish by their use. Capital goods and durable consumer goods fall into this category, while consumable goods such as foodstuff or fuels perish when they are used. For properties that do not perish by use, a separate sale of the ownership and of the usufruct is possible, and the sale of usufruct is the equivalent to leasing or rental contracts. Second, usufructs can also be derived for a limited time from a person, such as an employee who renders a service. Therefore, some employment contracts are also classified as *ijarah*, but they will be excluded from this section, which discusses *ijarah* as a financing tool. Figure 6.9 depicts the concept of *Ijarah* contract and how it is related to a sale contract.

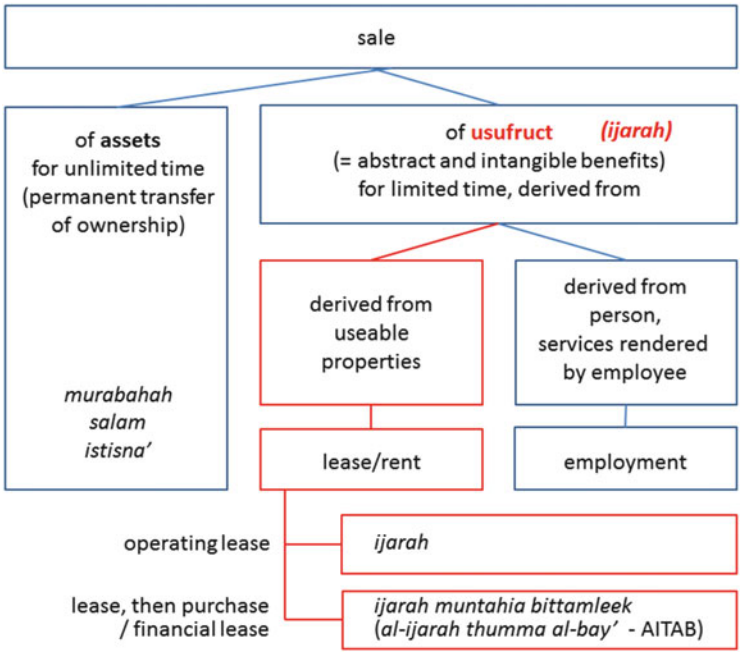


Fig. 6.9 *Ijarah* principle as a concept

6.9.1 *Key Aspects of* Ijarah

Shariah sets out the important considerations for *Ijarah* as an Islamic finance principle and financing tool. These considerations are crucial in determining the accounting treatment of this instrument, which I discuss in this section by drawing a contrast between *ijarah* and sale contract, as some Islamic scholars argue that *ijarah* is a sale of benefit or a service, therefore, I included *ijarah* in this category, i.e. sale-based contracts.

(a) Contracting Parties: The contracting parties of an *Ijarah* agreement are the lessor and the lessee. Lessor is the party who owns the asset and lessee is the one to whom the asset is given on lease. Both parties must be of legal capacity and of sound mind and judgement.
(b) Subject matter of *Ijarah* contract: The subject matter of *Ijarah* includes physical assets, usufruct or benefit of a physical asset. (i) Usufruct or benefit: the leased asset must be capable of being used or preserved or benefited from. The usufruct and the benefit from it must be lawful in Shariah. The lessee must use the leased asset in a suitable manner and comply with common practices. Maintenance of the leased asset is the responsibility of the lessor throughout the duration of the *Ijarah*, unless the lessee commits misconduct or negligence. If the benefit from the leased asset is impaired wholly or partially as a result of the lessee's misconduct, the lessee is obliged to restore or repair (Rahman 2012). The lessor must accept responsibility for any defects of the leased asset, which impair the intended use of the asset. (ii) Lease rent: the rent is what the lessee is committed to pay in return for the benefit enjoyed by him. The lease rental may be paid in cash or in kind (goods) or benefit (services) but must be specified. The lease term can be divided into different lease periods with different rental payments for each rental period. The rentals can be fixed or floating and, in the case, where it is floating, it is necessary to have the minimum and maximum ceiling for the rent (although the maximum is what matters here rather than the minimum). It is then permissible that the rentals for the agreed periods subsequent to the first period be determined according to certain benchmarks. The parties may agree to amend future rental payments by way of renewal of the *Ijarah* contract, but change in previous rentals, which are due is not permissible. In case of forward *Ijarah*, any amount paid by the lessee before the *Ijarah* commencement shall be considered as advance rental.
(c) Concluding an *Ijarah* contract: *Ijarah* is a binding contract and is concluded through offer and acceptance. The duration of an *Ijarah* contract must be specified at the time of the contract. It is necessary that the asset must be delivered at the time of the contract; however, if it is delivered at a later date, then no rent is due for the period between the contract date and the actual delivery of the asset. *Ijarah* contracts may be executed in respect of the same asset for different periods for several lessees (successive leases). A lessee may invite a co-lessee to share with him the usufruct, which he has a right to (Hassan et al. 2013).

(d) Guarantee and security: The lessor may ask for a guarantor or security to secure rental payments. No increase in the rental due may be stipulated by the lessor in case of delay in payment by the lessee. It may be provided in the contract of *Ijarah* that a lessee who delays payment for no good reason undertake to donate a certain amount to a charity. In case of foreclosure of the security provided by the lessee, the lessor may deduct from such amounts only what is due (Marifa 2014; Al-Zuhaili 2003).

(e) Termination of *Ijarah* contract: An *Ijarah* contract may be terminated if the lessor sells the leased asset to a lessee, if there is a destruction or loss of the leased asset or with the mutual agreement of both parties. It is not permissible for one party to terminate the contract unilaterally except in case there is a defect in the leased asset. An *Ijarah* contract does not terminate with the death of either party; however, the heirs of the deceased have the option to either continue or terminate the *Ijarah* contract. If the asset is sold to a third party, then the title and rights and obligations under *Ijarah* contract are transferred to the new owner (Marifa 2014; Hasan 2011). The leased asset in the possession of the lessee is held on behalf of the lessor, therefore, the lessee will not be liable for any damage. In case of partial destruction of the leased asset in a manner that impairs the benefits expected from the asset, then the lessee may terminate the contract or may agree with the lessor to amend the rental or to replace the asset. If the lessee stops using the asset or returns it to the owner without the owner's consent, then the rental will continue to be due. The lessor may stipulate that the *Ijarah* contract be terminated if the lessee does not pay the rent on time (Marifa 2014; Billah 2006). An *Ijarah* contract expires with the total destruction of the leased asset or if the asset is not in a usable form. Either party may terminate the *Ijarah* contract before it commences. The lease expires upon the expiry of its term. An *Ijarah* can be renewed for another term and such a renewal may be made before the expiry of the original term or automatically by adding a provision in the contract for such renewal when the new term starts, unless either party serves a notice on the other of its desire not to renew the contract (Marifa 2014; Al-Zuhaili 2003).

(f) Transfer of ownership in *Ijarah Muntahia Bitttamleek* (lease ending with transfer of ownership): In *Ijarah muntahia bitttamleek*, the asset is transferred to the lessee through a separate contract from *Ijarah*. This contract can be a sale agreement for a token price or it can be a gift contract. In case the *Ijarah* contract is combined with a gift contingent upon condition of full payment, then the ownership of the leased property is transferred if the condition is fulfilled. If the leased asset is purchased from the lessee to whom this asset is leased back on *Ijarah muntahia bittamleek*, then the period between the leaseback and the transfer of the leased asset to the lessee must be long enough, during which the leased property or its value is likely to change. Transfer of the ownership in the property cannot be made by executing, along with the *Ijarah*, a sale contract that will become effective at a future date Al-Zuhaili 2003).

6.9.2 Ijarah *as Operating Lease*

In its original concept, *ijarah* is not a financing contract. *Ijarah* is a lease contract that can be used to acquire the usufruct of movable assets, such as a car and immovable assets, such as a house. It is a special sales contract, and as in other sales contracts, "something" is transferred from one party to another against the payment of a price in instalments. Therefore, the rules of *ijarah* are analogous to the general rules of sale.

To be valid, an *ijarah* has to meet a number of general requirements for a sale (which are not listed here because it was covered in previous sections), and some specific requirements, including the following:

- The lessor must be the owner of the leased asset. It is not permissible to lease an asset from a natural or legal person who is not the owner of the leased asset, but a sub-lease with the consent of the owner is permissible.
- The object of the lease, the kind of usufruct derived from it and the duration of the lease must be clearly stated.
- The owner (lessor) has to transfer the possession of the asset to the lessee because the usufruct cannot physically be separated from the asset.
- While forward sales in general (except *salam*) are not allowed, it is possible to agree on a kind of forward sale of usufruct: Parties can agree on a lease today which becomes effective in the future when the lessee gets possession of the leased asset. The rent is payable only after the asset is delivered to the lessee (Hasan 2011).
- The rental rates have to be determined ex ante, i.e. when the contract is concluded for the whole period of the lease. It is permissible—in particular for long-term leases—to specify different rental rates for different periods or to link the leasing rates to a well-defined benchmark (such as the consumer price index). Whatever method is chosen, it must be unambiguous in order to prevent later disputes.
- There was a debate among Shariah scholars whether an interest rate such as LIBOR could be used as a benchmark for leasing rates. The majority view of Shariah scholars is that it is permissible: What counts for the Shariah compliance is not how much profit a party can make from a transaction or how the party calculates the targeted profit, but that the profit generating transaction or underlying contract is a sale and not a loan. Since *ijarah* is by definition a sale of usufruct, the lessor earns a profit from trade, and a calculation of the profit on the basis of LIBOR does not change this legal quality.
- An alternative to one long-term lease with benchmarked rental rates could be a number of consecutive shorter separate leasing contracts. The terms of each contract would be (re-)negotiated in view of the then actual market situation. However, if the parties do not come to an agreement in such a re-negotiation, the lease would be terminated.
- Since the lessor remains the owner, he has to bear the risks of loss or destruction (against which he can take insurance cover from a *takaful* company) as well as the depreciation, costs of regular maintenance and taxes levied from the owner (Rahman 2012).

- All current expenses of the use of the leased asset have to be borne by the lessee. The lessee is also liable for damages caused by misuse or negligence.
- The lessee has to pay the stipulated leasing payments (rent) when they are due. The contract may contain a clause about its termination in case of overdue rental payments.
- The *ijarah* contract may include a penalty clause for late payment of rent. The penalty shall prevent wilful delays of payments, but it has to go to charity and must not become income of the lessor. The reason is that the lessor has a financial claim against the lessee (i.e. the payment of the rent), and the lessee has a corresponding debt, and if the lessor would keep the money, the penalty would be an income from debt which is equivalent to *riba*. Hence, the lessor cannot keep the penalty as a compensation for his (actual or potential) losses from late payment but must pass it on to charity.
- The lessee has to return the asset at the end of the leasing period.

An *ijarah* contract with these elements would be an equivalent to an operational lease. Its purpose is not primarily the financing of the acquisition of an asset, which may remain with the lessee for all of its economic life, but the use of a long-lived asset, such as a building with an economic life of 50 years or an aircraft with an economic life of 25 years for a shorter period (e.g. 5 years) without the need of first purchasing and later selling the asset.

6.9.3 *Ijarah* Muntahia Bittamleek *as a Finance Lease*

In a finance lease, the purpose is the financing of the acquisition of an asset for the lessee by the lessor. Therefore, the ownership of the asset is transferred to the lessee at the end of the lease. This is usually a clause in conventional financial lease contracts. Such a clause cannot be incorporated in an *ijarah* contract from a Shariah perspective to avoid combining two contracts in one. Since the subject matter of an *ijarah* is explicitly the sale of the usufruct of as asset for a limited period of time, which leaves the ownership with the seller and not the sale of the asset itself, which transfers the ownership to the buyer, the inclusion of a clause for the transfer of ownership would be tantamount to the merging of two contracts in one which is expressly prohibited. Hence, a transfer of the ownership of the asset requires a separate contract (Hassan et al. 2013). Figure 6.10 shows the structure of the *ijarah* principle as a finance lease as practiced by Islamic banks.

At the end of the lease, the parties are free to enter into a new contract, which transfers the ownership from the (Islamic bank) lessor to the (customer) lessee. There are several options to affect this transfer of ownership, which all are applied in practice:

(a) If the lease was for the full economic life of the leased asset, the rental rates did not only cover the initial purchasing price of the asset, but also a profit for its financing. In this case the lessor may transfer the asset as a gift to the lessee; there

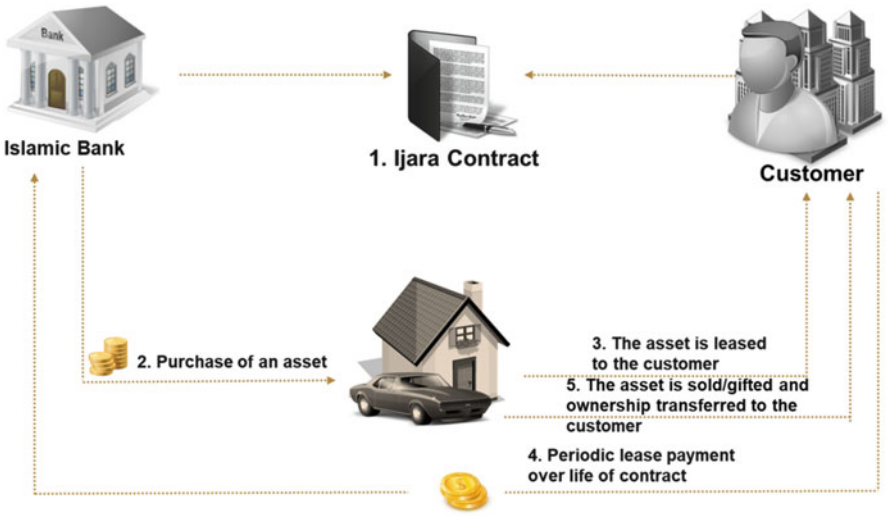


Fig. 6.10 Structure of *ijarah* as a lease finance

will be no additional payment by the lessee. An alternative would be the sale of the asset at a nominal price (say, £1). The choice between a gift and a sale may depend on tax rules or other stipulations in the secular law of the land.

(b) If the lease was shorter than the economic life of the asset, i.e. when the asset still has a significant market value, the lessor may sell the asset to the lessee at the market price with or without a rebate. The lessee does not have a claim against the lessor to sell him the asset at the end of the lease for a specified price (nominal or otherwise), and the *ijarah* contract must not contain a clause with such a stipulation as the Islamic commercial law does not allow it. However, Islamic law provides for some legal arrangements with a similar result.

- It is permissible for the lessor to give the lessee a unilateral binding promise (*wa'd*) to sell the asset after the lease contract has expired, at a token price or at the future market price that can be agreed between the parties at that time. This promise must be only unilaterally binding because a bilaterally binding promise would be tantamount to a sales contract in which both the delivery of the asset and the payment would be in the future. Such a contract would not be compliant with Shariah. Thus, in effect, the unilateral promise to sell will give the lessee a purchase option, which he is not required to exercise.
- It is also permissible for the lessor to sign a unilateral binding promise to transfer the asset to the lessee as a gift, provided the lessee had complied with all the conditions of the previous *ijarah* contract.

An *ijarah* contract which is accompanied by such a unilateral promise is called *ijarah muntahia bittamleek* (or *ijara wa iqtina*) (lease ending with the transfer of ownership). It replicates the economic characteristics of a conventional finance lease,

but it requires two separate agreements the lease contract and the promise to transfer ownership (as gift or by sale).

From a legal perspective, the lease contract is an operating lease because the ownership remains with the lessor. Therefore, the asset should be in the books of the Islamic financial institution. However, the commercial substance of a contract which covers the whole economic life of an asset should be treated as a finance lease from an accounting perspective, even without a promise to transfer, and the asset should be in the books of the lessee.

6.9.4 IFRS Treatment of Ijarah

As discussed earlier, IFRS requires faithful representation of the underlying economic reality of transactions. When a company requires use of an asset but does not have sufficient cash to purchase it outright (or simply has alternative uses for cash) it can either:

- obtain finance and then purchase the asset outright, or
- acquire the use of the asset without purchasing it, using a lease agreement.

IAS 17 defines a lease as:

an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time, (IAS 17, para 4).

If the company uses a lease agreement then it does not have legal title to the asset, but, depending on the terms of the agreement, it may enjoy the risks and rewards of ownership. For example, a company might decide to lease a fleet of vans for a period of, say, 3 years. The company will have exclusive use of the vans, insures them and takes on responsibility for day-to-day maintenance. There may also be a requirement for the company using the vans to make good any losses in their value due to, for example, excessive wear and tear or higher than average mileage.

The right to use the vans to generate cash flows for the business represents an asset, and, the obligation to make payments during the term of the lease represents a liability. Thus, an asset and liability is recognised here because that is a faithful representation of the underlying economic substance of the transaction. In contrast, where a company enters into a short-term rental contract, for example, to hire a car for a day, for an employee travelling to visit a customer, then it does not have the risks and rewards of ownership and does not have any obligation beyond the payment of the day's rental expense. In this situation the transaction is recorded as an expense.

This distinction is crucial because it affects how the company reports its financial position (its assets and liabilities).

IAS 17 defines a lease that transfers substantially all the risks and rewards incidental to ownership of an asset as a finance lease, (IAS 17 para 4).

The following situations are given as examples, which would usually lead to a lease being classified as a finance lease:

- the lease transfers ownership of the asset to the lessee by the end of the lease term;
- the lessee has the option to purchase the asset at a price that is expected to be sufficiently lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised;
- the lease term is for the major part of the economic life of the asset even if title is not transferred;
- at the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset; and
- the leased assets are of such a specialised nature that only the lessee can use them without major modifications.

Additional indications that may imply that a lease agreement is a finance lease are:

- the lessee can cancel the lease, the lessor's losses associated with the cancellation are borne by the lessee, as the case currently in the Islamic banking market;
- gains or losses from the fluctuation in the fair value of the residual accrue to the lessee (the customer of the Islamic bank), for example, in the form of a rent rebate equalling most of the sales proceeds at the end of the lease); and
- the lessee has the ability to continue the lease for a secondary period at a rent that is substantially lower than market rent. (IAS 17 paras 10–11)

Any lease that is not classified as a finance lease is defined as an operating lease.

6.9.4.1 Accounting Treatment of a Finance Lease Under IAS17

IAS17 specifically addresses the principle of substance over form and how it is applied to the recognition of assets and liabilities, stating that events should be accounted for and presented 'in accordance with their substance and financial reality and not merely with legal form'. Although the legal form of a lease agreement may be that the lessee does not acquire legal title to the leased asset, the substance and financial reality are:

> that the lessee, as a customer of the Islamic bank, acquires the economic benefits of the use of the leased asset for the major part of its economic life in return for entering into an obligation to pay for that right an amount approximating, at the inception of the lease, the fair value of the asset and the related finance charge. (IAS17 para 21)

To ensure that the financial statements of an entity present fairly its resources and obligations, when an asset is acquired via finance lease, the statement of financial position should show an asset and a liability. Otherwise, both assets and liabilities would be understated, thus distorting ratio analysis.

The required accounting treatment for a lessee is as follows:

> At the commencement of the lease term, the asset and the liability for the future lease payments are recognised in the statement of financial position at the same amounts except for any initial direct costs of the lessee that are added to the amount recognised as an asset.
>
> Minimum lease payments shall be apportioned between the finance charge and the reduction of the outstanding liability. The finance charge shall be allocated to each period during the lease term so as to produce a constant periodic rental rate on the remaining balance of the liability.
>
> A finance lease therefore gives rise to a finance expense for each accounting period. (IAS17 paras 21–22)

The asset is accounted for in the same way as non-current assets that are owned outright by the financial institution, i.e. it is initially measured at cost and subsequently measured at cost less accumulated depreciation in accordance with IAS16 Property Plant and Equipment or IAS38 Intangible Assets.

The required accounting treatment for a lessor is as follows:

> Islamic banks shall recognise assets held under a finance lease in their statements of financial position and present them as a receivable at an amount equal to the net investment in the lease.
>
> The lease payment receivable from the customer is treated by the lessor as payment of principal finance and finance income to reimburse and reward the bank for its investment and services.
>
> The recognition of finance income shall be based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the finance lease. (IAS17, paras 36, 37 and 39)

Example

A trader obtains an asset under a lease agreement from an Islamic bank. The asset has a fair value at the start of the contract of £52,050 and is estimated to have an useful economic life of 3 to 4 years, though it is common practice for companies to replace such assets after 3 years. The contract starts on 1 January Year 1 and lasts 3 years; the trader does not have the option to cancel the contract early. The estimated value of the asset after 3 years is £5100 and this is also the guaranteed minimum value of the asset at the end of year 3.

> The trader makes 3 annual payments of £18,000 starting on 1 January Year 1.
> *Solution:*

Identification of a Finance Lease

The lease term is for the major part of the economic life of the asset and the lessee cannot cancel the lease early. Therefore, the lease will be classified as a finance lease.

Trader—Lessee/Customer

The lessee is the entity that obtains the use of the asset, in this example the trader. The trader will recognise an asset at 1 January Year 1, and will depreciate the asset over its expected economic life of 3 years, in the same way as any item of property, plant and equipment would be recognised and measured in accordance with IAS 16 Property, Plant and Equipment.

Amounts to be shown in the financial statements:

Date	Carrying amount of the asset £	Depreciation expense in the year (1) £
31 December Year 1	36,400	15,650
31 December Year 2	20,750	15,650
31 December Year 3	5100	15,650

(1) Annual depreciation expense = (52,050 – 5100)/3 = 15,650

The trader will also recognise a liability and associated finance expense each year.

The rate of return implicit in the lease can be calculated by finding the internal rate of return of the cash flows, the fair value of the asset at T0, the annual payments and the residual value of the asset. It is worth noting that this example is simplified to the extent that the fair value of the asset is exactly equal to the present value of the future cash flows, so that the trader's expense is equal to the Islamic bank's income in this transaction. In this case the rental rate is 12% and this is used to calculate the finance expense and liability each year.

	£
Liability as at 1 January Year 1	52,050
Payment	*18,000*
Remaining liability after payment	34,050
Finance expense in year 1 (34,050 × 12%)	*4086*
Liability as at 31 December Year 1	38,136
Payment	*18,000*
Remaining liability after payment	20,136
Finance expense in year 2 (20,136 × 12%)	*2416*
Liability as at 31 December Year 2	22,552
Payment	*18,000*
Remaining liability after payment	4552
Finance expense in year 3 (4552 × 12%)	*546*
Liability as at 31 December Year 3	*5100*

Amounts to be shown in the financial statements:

Date	Carrying amount of the liability £	Finance expense £
31 December Year 1	38,136	4086
31 December Year 2	22,552	2416
31 December Year 3	5100	546

The liability at any point could also be calculated as the present value of future cash flows, for example, as at 31 December Year 1 the liability is equal to:

Payment at the start of year 2 (immediately) + Payment at the start of year 3 (in one year's time) + Residual value of the asset at the end of year 3 (in two years' time)

£18,000 + (£18,000 × 1.12^{-1}) + (£5100 × 1.12^{-2}) = £38,136

In the financial statements, this would be split into amounts falling due within 1 year (£18,000) and amounts falling due within 2 to 5 years (£20,136).

Islamic Bank—Lessor

The lessor is the entity that provides the asset, in this case the Islamic bank, for the use of the lessee. The bank will derecognise the physical asset when the risks and rewards of ownership are transferred to the trader. The 'asset' in the bank's accounts is the right to receive future cash flows under the lease agreement and this will be shown along with the income form the lease.

The net investment in the lease is shown as follows:

	Cash £	Discount factor	Present value £
Year 1 payment	18,000		18,000
Year 2 payment	18,000	1.12^{-1}	16,071
Year 3 payment	18,000	1.12^{-2}	14,349
Residual value	5100	1.12^{-3}	*3630*
			52,050

At the start of year 1, the bank will recognise an asset of £52,050, the present value of the future cash flows. At 31 December Year 1, the bank's financial statements will show a total asset equivalent to the present value of the future cash flows.

Payment at the start of year 2 (immediately) + Payment at the start of year 3 (in one year's time) + Residual value of the asset at the end of year 3 (in two years' time)

£18,000 + (£18,000 $\times$ 1.12^{-1}) + (£5100 $\times$ 1.12^{-2}) = £38,136

Statement of Financial Position

Non-current assets	
Finance lease receivable	20,136
Current assets	
Finance lease receivable	18,000
Income Statement	
Finance lease income	4086

Where an Islamic bank obtains an asset in order to lease it to a third party then it should recognise

(a) a profit as if an outright sale had taken place, based on the cost of the asset and the normal selling price, and
(b) finance income over the life of the lease agreement, reflecting a market rate of interest.

Hire Purchase

A hire purchase contract is a contract which includes the hire of an asset (or group of assets) that also contains a clause allowing the hirer an option to purchase the asset outright at a certain time or upon meeting certain conditions. These contracts are included in the definition of leases under IAS 17.

Where the lessee has the option to purchase the asset outright on particularly favourable terms then this is an indication that the contract is a finance lease rather than operating lease.

Operating Leases

When a lease is identified as an operating lease, then no asset or liability is recognised. The expenses are recognised in profit or loss in the same way as any other operating expense. Expenses will be recognised on a straight-line basis over the life of the lease, even if the pattern of cash flows is not even. Therefore, an operating lease may give rise to a difference between cash flows and profit, and an accrual or prepayment may be recognised in the financial statements.

Example

Company K rents an asset from Bank L under an operating lease. The rental agreement is expected to last 12 months, and specifies payments of £6000 on the last day of each month. As a marketing incentive, the bank has offered the first month free.

The total amount payable under the operating lease is £66,000 (11 × £6000) and this should be recognised on a straight-line basis. The average monthly payment, over 12 months, is therefore £5500 (£66,000/12).

Company A will recognise an expense of £5500 per month. At the end of the first month A will recognise an accrual, within liabilities, of £5500. Each subsequent month, A will reduce the accrual by £500.

The table below shows the amounts to be recognised in the financial statements in each case.

Date	Cash paid	Expense	Accrued expenses
Month 1	0	5500	5500
Month 2	6000	5500	(500)
Month 3	6000	5500	(500)
Month 4	6000	5500	(500)
Month 5	6000	5500	(500)
Month 6	6000	5500	(500)
Month 7	6000	5500	(500)
Month 8	6000	5500	(500)
Month 9	6000	5500	(500)
Month 10	6000	5500	(500)
Month 11	6000	5500	(500)
Month 12	*6000*	*5500*	*(500)*
Total	*66,000*	*66,000*	*0*

The Islamic bank will recognise income of £5500 per month. After the end of the first month, the bank will recognise accrued income, within assets, of £5500. This asset will then be amortised over the remaining life of the contract, at a rate of £500 per month.

The table below shows the amounts to be recognised in the financial statements of the bank in each case.

Date	Cash received	Income	Accrued income
Month 1	0	5500	5500
Month 2	6000	5500	(500)
Month 3	6000	5500	(500)
Month 4	6000	5500	(500)
Month 5	6000	5500	(500)
Month 6	6000	5500	(500)
Month 7	6000	5500	(500)
Month 8	6000	5500	(500)
Month 9	6000	5500	(500)
Month 10	6000	5500	(500)
Month 11	6000	5500	(500)
Month 12	*6000*	*5500*	*(500)*
Total	*66,000*	*66,000*	*0*

6.9.5 Combined Operating and Finance Leases

Where a single agreement provides for the lease of two or more items, it may be necessary to identify these items separately in order to fulfil the objective of faithful representation. For example, an Islamic bank may decide to enter into a lease contract for land and buildings. The Islamic bank would normally consider the land element and the building element as separate lease contracts, and the amounts would be shown separately in the financial statements. Land normally has an indefinite economic life whereas an existing building or facility may have a relatively short economic life. Depending on the terms of the contract, it may be appropriate to conclude that the building lease is a finance lease and the land lease is an operating lease.

In order to then divide cash flows between the land element and the buildings element of a lease of land and buildings, it would be necessary to measure the fair value of the land and buildings and split the payments in these proportions. The example below shows how this calculation would be performed.

Example

An Islamic bank enters into a 10-year lease of land and buildings. The fair value of the leasehold interest is £4 million, of which £0.5 million relates to land and £3.5 million relates to the buildings on the land. The lease payments are £500,000 per year.

Solution

The IFI will split the annual lease payments according to the relative fair value of the land element and buildings element of the leasehold interest.

$$\text{Land} : (0.5/4) \times 500{,}000 = 62{,}500$$

$$\text{Buildings} : (3.5/4) \times 500{,}000 = 437{,}500$$

6.9.6 Sale and Leaseback

A sale and leaseback transaction involves:

1. the company that owns and uses an asset sells the asset to an IFI, and;
2. the same company immediately leases it back to continue using it.

This transaction provides the company with the opportunity to raise finance, and this is often seen as an alternative to a secured loan. The finance raised can then be used to pursue other investment opportunities.

The second contract, the lease, is defined as a finance lease or an operating lease with reference to the criteria listed above and the lease is then accounted for appropriately.

If the lease is a finance lease, then the substance of the transaction is that no sale has taken place and the company still has the risks and rewards of ownership of the asset. The accounting treatment is to:

- derecognize the carrying amount of the asset,
- recognize the finance lease asset and liability,
- amortize any profit on the sale over the life of the lease.

If the lease is an operating lease, then the substance of the transaction is that a sale has taken place and the company no longer has the risks and rewards of ownership of the asset. The accounting treatment depends on the sale price. If the sale is at fair value then a profit or loss is recognised immediately, measured as the difference between the sale price and the carrying amount. If the sale is not a fair value, then there must be a reason why the transaction is being undertaken for an amount different to fair value, and the accounting treatment is specified by IAS 17. Table 6.1 provides a summary regarding the accounting treatment of this transaction.

6.10 Conclusion

This chapter discussed the sale-based Islamic finance principles, their product structure and accounting treatment. It is clear that those principles and the underlying product structure require a specific treatment due to the nature and characteristics of such financial contracts, where a sale of an asset takes place with ownership acquired by the Islamic bank then passed on to its client. This real sale and true ownership of the underlying asset is important for the contract to be valid and acceptable in Shariah. This, however, may create an accounting challenge for Islamic banks as such transactions are carried out in the conventional banking system as a loan agreement between the bank and its customer. This agreement, unlike the case with Islamic banks, does not stipulate ownership, possession, transfer of legal tile, existence of the sold asset and other Shariah requirements to affect this contract.

Table 6.1 Accounting treatment of operating lease

	Sale price is below fair value and		
	Carrying amount is equal to fair value	Carrying amount is less than fair value	Carrying amount is more than fair value
Profit	No profit	Recognise profit immediately	No profit (note 1)
Loss, not compensated for by future lease payments at below market price	Recognise loss immediately	Recognise loss immediately	(Note 1)
Loss, compensated for by future lease payments at below market price	Defer and amortise loss	Defer and amortise loss	(Note 1)
	Sale price is above fair value and		
	Carrying amount is equal to fair value	Carrying amount is less than fair value	Carrying amount more than fair value
Profit	Defer and amortise profit	Defer and amortise excess profit	Defer and amortise profit (note 2)
Loss	No loss	No loss	(Note 1)

Note 1: These parts of the table represent circumstances dealt with in IAS17 para 63. The carrying amount of an asset should be written down to fair value where it is subject to a sale and leaseback
Note 2: Profit is the difference between fair value and sale price because the carrying amount is written down to fair value in accordance with IAS17, para 63
(IAS17, IG)

While the Islamic finance contracts discussed in this chapter, *Murabaha* (and its variations), *salam*, *istisna'* and *ijarah* are different contracts with specific characteristics, the end financial outcome of all of them is the sale of an asset or a usufruct or benefit. Following conclusion of the contract a debt obligation is created, where the sale price is paid over time to the Islamic bank. The financial reporting of Islamic banks should appreciate these requirements and tailor its financial reporting accordingly.

On the other hand, the accounting treatment is based on the substance of the contract itself and its economic outcome, although it may differ in some specific details from the accounting standards and the loans contract practiced in the conventional market. The Conceptual Framework for Financial Reporting gives guidance on preparing financial statements and on the objective of financial reporting and the principles to be used in recognising and measuring the elements of financial statements, such as assets, liabilities, equity, income and expenses. The principles in the Conceptual Framework inform the content of individual standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

The Conceptual Framework first identifies the objective of general purpose financial reporting. Then, the Conceptual Framework sets out the qualities of useful financial information, and identifies that, to be useful, financial information must

(i) be relevant to users and (ii) must faithfully represent the underlying economic substance of the situation.

From the principles I discussed in this chapter, one may conclude that in identifying and measuring the assets and liabilities of an Islamic bank, the economic substance of transactions, rather than simply their legal form, should be reflected in financial statements. In other words, an Islamic bank will recognise an asset when it has control of a resource and expects to get the economic benefits associated with that resource, rather than when it has legal title to a specific object. This element, however, may contradict some Shariah requirements where the benefit of an asset is derived from its legal ownership and assuming all ownership risks. Thus, property purchased outright with the assistance of a loan and property obtained under a long-term lease are both recognised as assets, irrespective of differences in actual ownership, because the underlying substance of the transaction results in similar economic results, in that in both cases the entity has the risks and rewards of ownership.

Next chapter discusses the Islamic jurisprudence view regarding debt-based instruments, the third category of my classification of Islamic finance instruments.

Chapter 7
Islamic Financial Instruments: Accounting of Debt-Based Contracts

7.1 Introduction

We fully discussed the sale-based contracts of Islamic finance in the previous chapter (Chap. 6). The discussion included all types of sale-based instruments, Shariah requirements, associated risks and accounting and financial treatment. This Chapter discusses the accounting and financial accounting treatment of debt-based Islamic financial instruments. If you recall, I have categorised Islamic finance principles/contracts in Fig. 1.5 into four categories. In this Chapter I discuss the third category. For ease of reference, I have recalled Fig. 1.5 below (which is numbered as 7.1 for the purposes of this Chapter), highlighting the applicable category for this Chapter. The debt-based instruments category includes the Islamic finance principles of *Qard* (interest-free/benevolent loan), *Amanah* (trust deposit) and *Wadi'a* (safe custody deposit).

The organisation of this Chapter would be as follows, I discuss the key debt-based instruments as shown in Fig. 7.1, how each instrument works in practice and the Shariah requirements as stated in the Islamic jurisprudence. During the discussion of each instrument, I analyse the various types of the instrument (if any) and its application in practice. Then, I provide an analysis of the accounting treatment of that instrument accordingly. The discussion in this Chapter starts with the Islamic finance principle of *qard*, *amanah* and then *wadi'a* as shown in the sections below. The approach in this Chapter is to address all three instruments, first, from an Islamic banking perspective, then discussing the accounting treatment for all of them in one section at the end. This is because whichever structure is used to offer a current account the adjustment and treatment in the Islamic commercial law is the same for all of them, with some variations in the Shariah treatment among them, and would be the same from an accounting perspective.

Before I start with the first instrument *qard* as mentioned above, it would be useful for the benefit of the reader to provide a quick overview of a *qard* contract and its requirements in the Islamic commercial law.

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_7

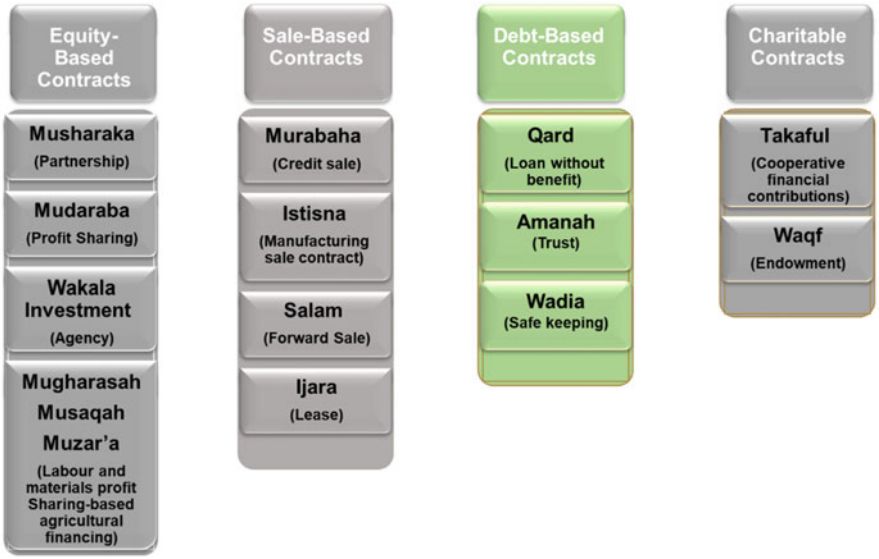


Fig. 7.1 Islamic financing techniques: debt-based instruments

7.2 *Qard* (Interest-Free Loan)

Qard is an interest-free loan in a commercial context which creates a debt with enforceable obligation to pay back the loan according to agreed terms. A *qard* facility plays an important role for maintaining the solvency of the risk pool in a *takaful* undertaking. It involves the transfer of ownership in fungible wealth to a person on whom it is binding to return wealth similar to it. On the other hand, *Qard al-Hasan* (Benevolent Free Loan) is a free loan for charitable purposes; the repayment of the loan amount is a moral obligation of the borrower, but the lender should be mindful and avoid insisting on the repayment if that would cause hardship to the borrower.

There are important requirements that should be considered in a *qard* Contract:

(a) The contract of *qard* is concluded through offer and acceptance.
(b) Both the creditor and debtor must possess legal capacity to enter into this contract.
(c) *Qard* can be for a specific period of time or it can be given without a specific time period stipulated for repayment.
(d) It is not permitted for a lender to stipulate or a borrower to extend, any additional payment or other benefits, irrespective of whether the excess over and above the loan amount is in terms of quality, quantity, tangible or intangible form, and whether the stipulation is at the time of contract or at a later stage during the contract.

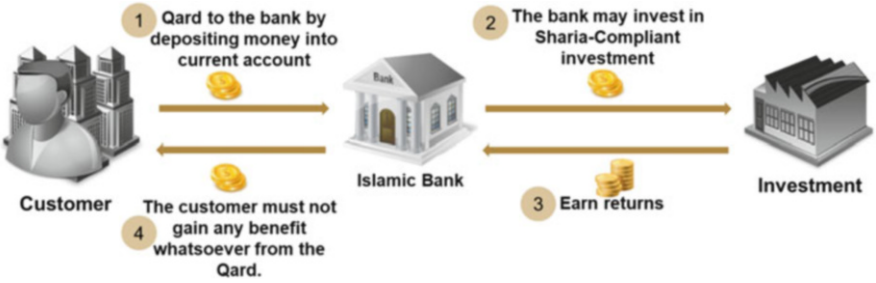


Fig. 7.2 Typical structure of a *qard* contract

(e) An excess over *qard* is permitted at the time of its repayment when it is not stipulated, irrespective of the subject matter of *qard* being cash or in kind. The creditor is allowed to charge the debtor any actual cost incurred to disburse the *qard* amount, such as remittance charges.

Qard is applied by Islamic banks to provide an interest-free overdraft facility as a value-added feature, current account and credit card. Figure 7.2 provides an overview of the *qard* contract as applied in Islamic banking to provide a current account, under which the IFI would utilise customers' deposits for its own funding requirements. The client gives the IFI authority to use current accounts funds to invest in its operations, in that case, the deposit amount is considered as a non-interest loan by the depositor to the IFI. As such, the IFI has the obligation to return the credit balance upon demand; clients have no right to receive any profit on their balances. The liability to return the *qard* deposit is not affected by the IFI's solvency or otherwise.

7.2.1 Key Aspects of Qard

Qard is used as deposits whose repayment in full on demand is guaranteed by Islamic banks. The deposits in the current account are treated as loans from clients to the IFI and therefore, bear no yield to the account holders.

The term *qard hasan* was not found in any of the nine *Hadith* collections. Among these, Muslim, Abu Dawud, Ibn Majah, Tirmidhi, and Muwatta that do not have a separate chapter (*kitab*/*baab*) on *qard*. In some of these *Hadith* collections, some minor and brief segments on *qard* are included in either the Book of *Buyu'* (sales transactions) or the Book of *Sadaqah* (alms/charity). However, the word *qard* hardly appears in any of these sections. Imam al-Bukhari has a specific Chapter (*Kitab*) on *qard*/loan, (Al-Bukhari 1985, Volume 3). In the book of al-Bukhari *qard* and *dayn* are interchangeable even though in the *fiqh* a distinction was made, so that *qard* by definition would be with no excess and that is in the sense of *qard hasan* (Haron 1996).

Dayn, on the other hand, means "Debt". A *Dayn* comes into existence as a result of any contract or credit transaction. It could be incurred either by way of rent or sale or purchase or in any other way, which leaves it as a debt to another, while *qard* legally means to give something of value to someone else by way of virtue so that the latter could avail of the same for his/her benefit with the condition that the same or similar amount of that item would be paid back on demand or at the agreed payment time. It is a loan that a person gives to another as help out of compassion or charity for a specified time. The discrepancy in the above statement is obvious. On one hand, it is stating that *qard* 'be paid back on demand or at a specified time'. On the other hand, it also states that it is a loan as a help, charity or advance 'for a certain time'. If it is for a certain time, then it cannot be payable on demand (Saleh 1986).

It should be noted that al-Bukhari is not a jurist, as a *Muhaddith* (collector of *Hadith*) he does not view the distinction between *qard* and *dayn* in a similar way as a jurist would. He uses the two expressions interchangeably. Nevertheless, in the entire Book of Loan, the word "*qard*" appears in a few places. This, however, does not appear in the text of any *hadith*, but under the chapter commentary of al-Bukhari himself and two juristic statements of Ibn Umar and Ata Amr bin Dinar (Saeed 1996).

It is important to note that even though there is a general understanding that loan in the context of Islamic jurisprudence means 'the loan of fungibles including money', any excess or profit charged on loans is banned whether the fungible subject-matter of the loan is usurious (*ribawi*) or not, i.e., weighable or measurable (in relation to the Hanafi and Hanbali schools) or is food (in relation to the Shafi'i and Maliki schools). Thus, a fungible textile measured by the yard is not *ribawi* for either group, and yet cannot be loaned for consumption with excess (Khan 2005).

The issue of categorization of fungibles in defining *qard* is relevant because it illustrates how the task of defining the underlying notion of "*ribawi*" and deducing the details at the level of application virtually falls apart in establishing any coherence. Thus, the relevant question is why such incoherence and disagreement at the level of applied details, on the subject of *riba* and *qard*? The answer may lie in the fundamental problem with the traditional way *riba* or *qard* is defined and then attempts are made, to apply it at the required level of details.

7.3 *Amanah* (Trust Deposit)

Amanah literally means trust. Technically, it is an important value of Islamic society in mutual dealings; it also refers to deposits in trust. A person may hold property in trust for another; it entails the absence of any liability for loss, except for breach of duty, negligence or misconduct.

Under *amanah* arrangement, the Islamic bank treats the funds as a trust and cannot use these funds for its operations; it does not guarantee the refund of the deposit in case of any damage or loss to the *amanah* resulting from circumstances beyond its control. In *wadiah*, however, the bank is deemed as a keeper and trustee

of funds and has the depositors' permission to use the funds for its operations in a Shariah compliant manner.

Mohammad Obaidullah argues that *amanah* as a deposit instrument is not acceptable, and deposits account structured on it should be treated as loans. Deposits based on *amanah* are driven by the motive of safekeeping. The Islamic commercial law also deals with the notion of deposits in the framework of *amanah*. However, an IFI's deposits will not fall into this category, since an IFI invites and seeks deposits for its own interests. The IFI' intention while accepting currencies as deposits is not the safekeeping, but the utilization thereof, and, on demand, to return it in full. The general consensus, therefore, is that where the deposit is a sum of money or something, which is perishable through use, shall be deemed to be a loan if the depository is permitted to utilize it. Thus, if it is clear that a bank deposit is a loan, it means that any increase paid by the bank over the sum deposited constitutes *riba* (Farooq 2008; Al-Zuhaili 2003).

Obaidullah argues that customers' deposits cannot be treated as *amanah*, but those can be treated as *wadiah* or *qard*. Deposits in Islamic banks may be modelled on the basis of the classical contracts of *al-wadiah* and *qard*. Those contracts do not allow payment of any excess over and above the principal amount either as a stipulation in the contract or even as a unilateral gift by the IFI that is not customary. *Amanah* is frequently defined by IFIs as: Something which is given by a person to another to keep for some reason such as safe custody. The keeper is under an obligation to return the subject matter in the same condition in which he received it. The keeper may also use the subject matter with the prior permission of the owner (Farooq 2008; Saleh 1986). Thus, there is good reason why *amanah* may not be applied to demand deposit. As Hashim Kamali (2008) points out that according to Islamic understanding of *amanah*: "... a trustee is not liable for the loss of the property in his custody unless he is at fault or negligent.

However, one needs not be surprised that "unilateral gift" has become customary to ensure customers' commitment. If Islamic banks routinely announce a return as a 'gift' for the account holder or offer other advantages in the form of services for attracting deposits, this would clearly permit entry of *riba* through the back door. Unfortunately, many Islamic banks seem to be doing precisely the same as part of their marketing strategy to attract deposits as practiced in Malaysia. We should note here that just because some Islamic scholars treat *amanah* differently from *wadiah* or *qard*, one may not deduce that the same understanding is shared by others. In many cases, *amanah* or *wadiah* are regarded interchangeably (Vogel and Hayes 2006).

7.4 *Wadi'a* (Safe Custody Deposit)

The term *wadi'a* is derived from the Arabic verb (*Wada'a*), which means to leave, lodge or deposit. *Wadi'a* in the legal sense signifies a thing entrusted to the care of another. The proprietor of the asset is known as Muwdi' (depositor), the person entrusted with it is known as *Mustawda'* (custodian) and the deposited asset is

Wadi'a. The concept of *wadi'a* is not specifically mentioned in the Quran. However, as far as safekeeping, which is closely related to trust is concerned, there are some indications on this concept, which can be observed in the Quranic verse. "Verily! Allah commands that you should render back the trusts to those to whom they are due. . .", (Quran 4:58), and "Those who are faithfully true to their Amanat (all the duties which God has ordained, honesty, moral responsibility and trusts) and to their covenants. . .", (Quran 23:8).

Deposits under *wadi'a* take the form of loans from depositors to Islamic banks and the bank guarantees refund of the entire amount of the deposit. While these deposits can be withdrawn at any time, the depositors have no right to any return/profit on such deposits. However, depositors, at the IFI's discretion, may be rewarded with a *Hibah* (gift), provided that such gifts do not become a custom or a permanent practice.

7.4.1 Key Aspects of Wadi'a

(a) Offer and acceptance: *wadi'a* is not valid until there is a mutual consent between the relevant contracting parties. This mutual consent is expressed by an offer and an acceptance.
(b) The contracting parties: The relevant parties here are the depositor and the custodian. It is required that the depositor and the custodian must be persons who have legal capacity.
(c) The asset: The subject matter of deposit must be a valuable property in Islamic law. Therefore, items such as a dead animal, pork, etc., are forbidden and cannot be part of the *wadi'a*. The item deposited must also be a form of property that can be possessed physically.
(d) Conditions for *wadi'a* asset: It is not permitted to utilise the deposit without the prior consent of the depositor. It is not permitted to travel with a *wadi'a* unless all the necessary measures to safeguard the deposits are taken. The custodian is not permitted to entrust the deposit to a third party or mix it with other assets, unless there is a valid reason and, in a situation, where the custodian can easily identify and separate the mixed assets from its own (Iqbal and Molyneux 2005).

Islam takes trust very seriously and the Qur'an warns about the consequence from God for any breach of trust. However, the textual evidence for *wadi'a* suggests that any law "requiring" Islamic banks to guarantee the deposits would be contrary to the religious context. The context here is not in relation to the case where the trustee seeks out or solicits *wadi'a* or trusts from others. This is usually based on the trustworthiness and integrity of the trustee, people seek such service as sort of a personal favour.

Thus, motivated to help others, a trustee may accept such trusts. However, it is not possible for the trustee to guarantee, except that the trustee is expected to make an honest and caring effort to take care of the trust. Barring any negligence or deliberate

waste, such trustee cannot be expected to offer any guarantee. The case of IFIs or similar financial institutions is different as they are in the business of providing financial services. And the existence of a bank means an open invitation or solicitation of such deposits. Thus, the trustee cannot be imposed or required to offer such guarantee. To legally require IFIs to offer such guarantee as part of any modern national banking system or laws would be inconsistent with this Shariah text, which makes no distinction whether the trustee accepts the trust with or without the consent of the depositor, to use the fund as the trustee sees fit (Farooq 2008).

An argument can be made that since IFIs are commercial enterprises involved in financial intermediation, and as such, different from the trustees mentioned in the Shariah text, there is possibly a case that IFIs could be treated differently. So that they could be required to guarantee such deposits.

7.5 Accounting Treatment of Debt-Based Contracts

Debt in Islamic jurisprudence is either a commodity or a sum of money, which is owed by a debtor. *Bay' al-Dayn* (sale of debt) is the sale of such debt or receivable to (1) the debtor himself or to (2) a third party for immediate or deferred payment. A sale of debt to the debtor at par and on spot is considered permissible. A debt in form of a payable right or receivable is considered as money, and although a debt is a different form of money than cash, Islamic jurists consider their substance as of the same type. Therefore, the basic rules for *sarf* (special requirements for the exchange of currencies) have to be observed, meaning that an exchange can only take place on spot and at par.

Any increase or decrease would be tantamount to *riba*. Discounting cheques, promissory notes, bills of exchange and similar commercial papers are not allowed because the discount would be *riba*. However, this majority view is challenged by a number of Islamic jurists, and forms of discounting may be found if the debt is first converted into something of different type (for example, from a financial debt into a debt in commodities). *Bay' al-dayn* as a sale of debt at a discount to a third party is generally not permitted in the Middle East, but it is lawful (under some conditions) in Malaysia where it is used for Islamic money market instruments, Islamic treasury bills, Islamic negotiable instruments, and Islamic accepted bills by IFIs (Vogel and Hayes 2006).

As explained in the sections above the contractual characteristics of the debt-based instruments used by Islamic banks, which broadly do not impact the return as a non-return generating financial products are considered as debt and liability on the balance sheet.

As per IFRS 9B4.1.7A, to be considered SPPI (Solely Payments of Principal and Interest (Profit in the case of Islamic banks), *a basic lending arrangement should include consideration for the time value of money and credit risk that are typically the most significant elements of interest. However, in such an arrangement, interest can also include consideration for other basic lending risks (for example, liquidity*

risk) and costs (for example, administrative costs) associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement.

The basic concept of a conventional deposit account is a loan from customers to the bank for a rate of interest, some current accounts do not pay anything, while the bank use this fund for its own liquidity and other funding purposes. As a result, the bank keeps a margin of profit generated from this transaction. The same applies to deposits of Islamic banks that could be based on either of the three debt-based contracts i.e. *qard, amanah* and *wadi'a*. this is of course would be subject to Shariah restrictions around any return paid to customers on such accounts, as discussed above. Therefore, the above contracts are purely a liability that should be paid back to customers on demand or according to the terms of the deposit and the IFI is liable to pay the exact amount the customer deposited. This is in contrast to equity-based contracts that offer investment savings deposits, which were discussed in Chap. 5.

7.6 Conclusion

This Chapter discussed the debt-based instruments namely *qard, amanah* and *wadi'a* of the Islamic finance principles, their product structure and accounting treatment. It is clear that those principles and the underlying product structure do not require a specific treatment, in contrast to other Islamic finance principles, due to the nature and characteristics of such financial contracts, which are similar to a conventional deposit account.

The accounting treatment is based on the substance of the contract itself and its economic outcome, although it may differ in some specific details from the accounting standards and the loans contract practiced in the conventional market. The Conceptual Framework for Financial Reporting gives guidance on preparing financial statements and on the objective of financial reporting and the principles to be used in recognising and measuring the elements of financial statements. The principles in the Conceptual Framework inform the content of individual standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

The Conceptual Framework first identifies the objective of general purpose financial reporting. Then, the Conceptual Framework sets out the qualities of useful financial information, and identifies that, to be useful, financial information must (1) be relevant to users and (2) must faithfully represent the underlying economic substance of the situation. The financial disclosure of the debt-based deposit instruments should be made in the liability section of the balance sheet. The note shall indicate the balance at the beginning of the financial period, changes during the period and the final balance at the end of the financial period. The financial disclosure should also take into account Shariah requirements regarding the permissibility of guaranteeing a deposit based on certain debt instrument and how that is reflected in its accounting treatment.

Chapter 8
Islamic Financial Instruments: Accounting of Charitable Contracts

8.1 Introduction

The previous chapter (Chap. 7) provided an insight into the types of debt-based Islamic financial instruments and their accounting treatment. This chapter discusses the accounting and financial accounting treatment of charity-based Islamic financial instruments. If you recall, I have categorised Islamic finance principles/contracts in Chap. 1, Fig. 1.5 into four categories. In this chapter I discuss the fourth category. For ease of reference, I have recalled Fig. 1.5 (which is numbered as 8.1 for the purposes of this chapter), highlighting the applicable category for this chapter. The charity-based contracts category includes the Islamic finance principles of *Takaful* (cooperative financial arrangement) and *Waqf* (endowment).

The organisation of this chapter would be as follows; I discuss the two charity-based instruments as shown in Fig. 8.1, and how each instrument works in practice and the Shariah requirements as stated in the Islamic jurisprudence. During the discussion of each instrument, I analyse the various types of the instrument (if any) and its application in practice. Then, I provide an analysis of the accounting treatment of that instrument accordingly. The discussion in this chapter starts with the Islamic finance principle of *takaful* and then *waqf* as shown in the sections below. The approach in this chapter is to address the two contracts first from an Islamic finance perspective, then discussing the accounting treatment for each one in a separate section at the end. There is also a discussion of the accounting treatment of *takaful* as an instrument to provide student finance. This would be achieved without overlooking the specific characteristics and requirements of each instrument from an accounting perspective.

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_8

Fig. 8.1 Islamic financing techniques: charity-based instruments

8.2 *Takaful* (Cooperative Financial Arrangement)

Takaful is often referred to as Islamic insurance. It is a financial transaction of mutual co-operation between multiple parties with the objective of providing financial security against an unexpected material risk. In a *takaful* relationship, the participants jointly contribute to a pooled fund for the purposes of providing mutual indemnity and protection for any of the participants exposed to defined risk(s). All participants are insurers and insured at the same time.

A risk is the possibility of loss in an event. It is an inevitable part of life because almost every human endeavour carries risk. It relates to uncertain events in the future such as accidents, thefts, disasters or death that may result in loss, damage and financial difficulties. Insurance is one of the important tools available to manage such risks. Islamic law does not prohibit the concept of risk management but promotes risk management with a few conditions. It states, for example, that there should not be speculation on risk for profit making and there should not be an event where someone profits at the expense of others. The efforts to tackle the problem of risk within Shariah principles have resulted in the emergence of *takaful* (Ali 2008).

Takaful, with its basic principle of mutual contribution and mutual indemnity, has been practiced for centuries. *Takaful* is playing a vital role in mitigation and management of risk in accordance with Shariah principles. The idea of *takaful* is basically to share the loss which would be borne by all the participants in the *takaful* product, rather than transferring it to an insurance company or insurer, as practiced in conventional insurance. *Takaful*, as defined by AAOIFI Shariah Standard No. 26, is

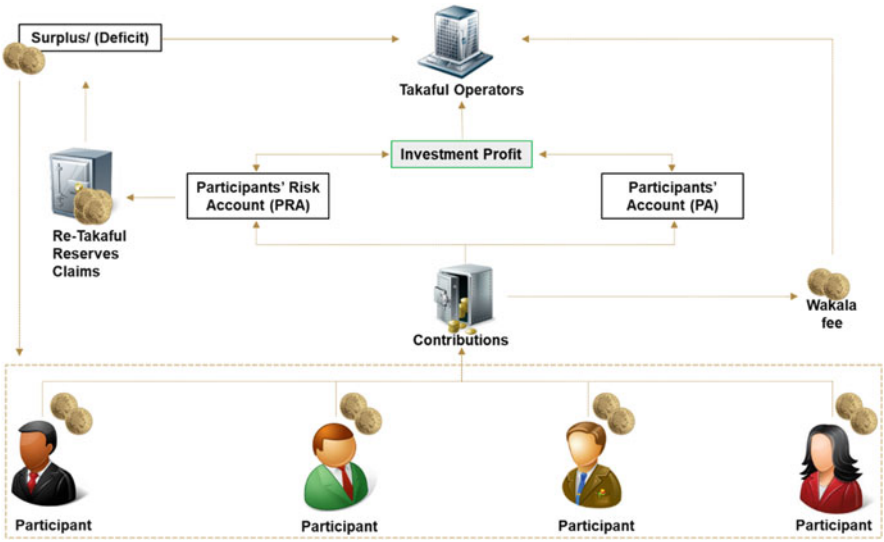


Fig. 8.2 Typical structure of a *takaful* model

a process of agreement among a group of people to handle the damage/injuries resulting from specific risks to which all of them are vulnerable.

A process is thus initiated, involving payment of contributions as donations, and leading to the establishment of an insurance fund that enjoys the status of a legal entity and has independent financial liability. The resources of this fund are used to indemnify any participant who encounters a specified risk under the terms of the *takaful* agreement, subject to a specific set of rules and a given process of documentation. The fund is managed by either a selected group of the *takaful* participants, or a joint stock company that manages the *takaful* operations and invests its assets for a specified fee.

Takaful is applied by Islamic financial institutions (IFIs) to provide a *takaful* and re-*takaful* instruments as an Islamic alternative to the conventional insurance and re-insurance instruments. Also, an interest-free overdraft facility as a value-added feature, current account and credit card. Figure 8.2 provides an overview of the *takaful* structure as an Islamic insurance model.

8.2.1 Key Aspects of Takaful

Islam permits the taking of measures to reduce risks. This is illustrated by the *hadith* in which the Prophet (pbuh) advises a Muslim to have faith in God and tie up his camel, rather than relying just on his faith in God to prevent the animal from wandering off (Al-Bukhari 1985). However, Islam does not permit contracts for the buying or selling of indemnities or guarantees. This is because such contracts

contain elements of speculation (*Maysir*) and uncertainty (*Gharar*), which are forbidden. In a conventional insurance contract with a proprietary (not a mutual) insurance company, the insurer takes money (the premium) from the insured in the hope of making a commercial profit. The company anticipates that the claims made by the insured for the period covered by the insurance will be less than the amount of the premium, this is *Maysir*. Also, the insured pays for an uncertain benefit, which may be nil if there is no claim or may greatly exceed the amount of the premium, this is *Gharar*. In order to avoid *Maysir* and *Gharar*, Islamic insurance takes the form of co-operative or mutual insurance—*Takaful*, which is the Arabic word for solidarity or mutuality. This charitable nature of *takaful* and the mutual guarantee of participants to each other tolerates any possible uncertainty or speculation, this is because of the gratuitous nature of this arrangement (Archer et al. 2009).

The concept of *Takaful* originates from the ancient Arab practice of *al-Aqilah*, which was approved by the Prophet (pbuh) during his time. It was narrated by Abu Huraira (ra) "two women of Hudail fought each other and one hit the other with a stone. The stone hit her in the belly and she had been pregnant, and the unborn child was killed. They both took the matter before the Prophet (pbhu), and he ruled that the blood money was due to her relatives for what she had in her womb as a male or female slave (slave and servants were very common at that time) of the highest quality. Hamal ibn Nagigha said: 'O messenger of God! Will I be penalized for a being that has not drunk or eaten or made a sound nor even come into existence?' At that the Messenger of God (pbuh) said: 'He is a brother of those who tell fortunes'. The practice of Aqilah (as practiced by the ancient Arabs) requires the tribe to be able to make a form of monetary contribution on behalf of the killer to compensate the heir(s) of the victim or blood money compensation.

The concept of *takaful* also has a relation to the customary practice of *Asabiyya*, which is a form of tribal solidarity. Ibn Khaldoon, in his Prolegomena, mentioned some of the oldest forms of cooperative insurance practiced by Arabs before Islam. He stated that Arabs practiced insurance of properties in many different forms. During winter and summer trips, members of caravans agreed among themselves to compensate, from the profits of the trips, anyone of them who might lose a camel during the trip. All members paid a share in proportion to their profits or capital in the trip according to the condition. They also agreed to compensate those whose goods remained unsold or were destroyed due to the death of their camels. In addition, in trade and business the practice of *takaful* can be traced to the second century of the Islamic era when Muslim Arabs, while expanding their trade into Asia, mutually agreed to contribute to a fund to protect themselves in the event of mishaps or robberies during their numerous sea voyages (marine insurance) (Marifa 2014; Ali 2008).

The development of *takaful* in modern times was theoretically initiated by Ibn Abideen, a lawyer and Islamic jurist who looked into the concept of insurance. He looked at marine insurance as it was the first form of insurance that came into being in Islamic countries. Similarly, Muhammad Abduh, another Islamic jurist, issued two fatwas permitting insurance practice. The first of two fatwas, looked at insurance transaction as that of *Mudaraba* financing. While the second stated that the transaction which is similar to endowment or life insurance is legal. Practical efforts towards

institutionalising *takaful* were made by Sudan in 1979 and Malaysia in 1984. But the major role in the development of *takaful* was played by the declaration of Grand Counsel of Islamic Scholars in Makkah, Saudi Arabia and *Majma'* Al-Fiqh (Fiqh Academy) in 1985 when the conventional commercial insurance was declared *Haram* (forbidden) and only insurance based on the application of Shariah cooperative principles and charitable donations, was declared *Halal* (permissible) (Marifa 2014).

Therefore, the concept of *takaful* is significantly defined by the following core principles: (i) *Tabarru'* Commitment, is a type of Islamic financial transaction that is fundamental to *takaful* schemes. It is the amount contributed by each *takaful* participant to fulfil obligations of mutual help and to pay claims submitted by eligible claimants. (ii) *Ta'awun*, the concept of *ta'awun*, or mutual assistance, is another core principle to the operation of *takaful*, with participants agreeing to compensate each other mutually for the losses arising from specified risks. As *takaful* has often been perceived as a form of cooperative or mutual insurance, the initial objective is not to gain profit, but to assist one another mutually, under the principle of *ta'awun*. It is clearly stated in the Qur'an, "help one another in goodness and piety, and do not help one another in sin and aggression" (Al Maidah 5:2). Even the word "*Takaful*" itself, in Arabic, means "solidarity". (iii) Prohibition of *Riba* (Usury), conventional insurance business involves the element of *Riba* (IFSB 2009).

Hence, it is important that investments in both the *takaful* funds and the shareholders' funds are *Riba*-free types of investment. The significance of *tabarru'* and *ta'awun* in a *takaful* undertaking is tested in modern *takaful* models, when *takaful* as a financial product is widely offered and operated through a proprietary business entity set up by shareholders. In a *takaful* undertaking, the underwriting needs to conform to the principle of mutuality, that is, the underwriting fund belongs to the *takaful* participants, who share the risk, and not to the shareholders. Correspondingly, the shareholders do not take on any underwriting risk. It is the management of the underwriting, investment and administration that are performed by the TO (*takaful* operator) as *mudarib* or *wakil*, or both (IFSB 2009).

8.2.2 Takaful *Participants and* Takaful *Operator*

The contributions and the risk pool of a *takaful* are managed by a *takaful* operator (TO), which is usually a for-profit joint stock company. Although the *takaful* approach has many communalities with mutual insurances, there is a basic difference insofar as the TO is not set up and controlled by the *takaful* participants, but by shareholders who considered *takaful* as an attractive business opportunity. It is important to note that the TO, in principle, does not assume any risks. The risks remain with the participants and all claims have to be settled from the contributions of the participants' funds to the risk pool.

However, it cannot be ruled out that, in a certain period, the total amount of all claims exceeds the funds in the risk pool. If no further resources are available, claims cannot be compensated in full. This would not happen in conventional insurance

where the insurance company has to fill any gap. Seemingly, in *takaful* a partial compensation is also not envisaged, both *takaful* practitioners as well as Shariah scholars accept the possibility that the risk pool can run into a deficit. Given predetermined claims of participants, the crucial question then is who will cover the deficit in a *takaful* scheme. Only two options are at hand: either the TO or the *takaful* participants.

Conceptually, it must not be the *takaful* operator (although factually this may be the case, see below), so it has to be the participants. But it is unrealistic to assume that they would pay on call an extra amount to cover specifically those damages in the past that have caused the deficit. Hence, the deficit can be made up only out of future contributions. But if no other party steps in to bridge the time until sufficient future contributions flow in, the deficit would cause the insolvency of the risk pool and thus the "bankruptcy" of the *takaful* scheme. To avoid this outcome, the TO could step in and provide an interest-free loan (*qard*) to close the liquidity gap. The *qard* has to be paid back from future contributions of participants. In practice, regulators require such a *qard* facility, irrespective of some doubts regarding the Shariah compliance, and for this, TOs have to provide a sufficient capital buffer (Htay et al. 2012).

8.2.3 Takaful *Undertakings as Hybrids*

I discussed above the basic *takaful* undertakings and structure, however, to resolve various issues for a viable working *takaful* model, some financial engineering was required. Thus, the *takaful* business is executed in *takaful* undertakings with a hybrid structure, consisting of a commercial management company (the TO) and a separate risk fund or underwriting pool, the participants' *takaful* fund (PTF), and in addition the participants' investment fund (PIF) for the savings and investment components in family *takaful* (Alhabshi 2012). The operating structure work in practice as follows:

- The *takaful* participants (TPs) pay contributions to the PTF from which compensations and operating expenses have to be financed. Surpluses, if any, have to be invested in a Shariah compliant manner.
- The contributions of each TP are contractually fixed and recorded in the participants' risk accounts (PRAs) and, in general *takaful*, in the participants' investment accounts (PIAs).
- The contribution to the PIAs and the funds in the PIF are not part of the mutual risk cover. They are invested in order to build up wealth for the participants in case of survival or for the beneficiaries in case of death. The TO is responsible for the profitable investment of this part of the *takaful* contribution.
- The *takaful* contracts specify the claims in cases of damage.

- The TO manages the underwriting and investments on behalf of the TPs. Underwriting surpluses and investment profits belong to the TPs, who also should bear, in the last instance, underwriting deficits and investment losses.
- Since surpluses belong to the participants, they may claim a refund of those parts of their contributions, which were not needed to cover claims. On the other hand, surpluses could be used to create reserves against future claims of unexpected size. Most TOs give priority to the building-up of reserves to protect against deficits (and to reduce the probability that they have to step in with a *qard*).

For third parties, a *takaful* undertaking seems to be identical with the TO who enters into contractual relations with them. The PTF is a distinct entity only in the internal setting (relevant for the internal relations between the TO and the participants) but does not have a separate legal personality, relevant for relations with outside parties. There are different forms in which the services of the TO would be compensated. In practice, three components are often combined (Htay et al. 2012).

- The TO can charge fees for its services. Since he acts as an agent (*wakil*) for the participants, this fee is called *wakalah* fee. The basis for the calculation of the fee is typically the gross contributions of the participants.
- With respect to the investment accounts and the PIF in general *takaful* (non-life *takaful*), the TO can assume the role of a *mudarib* under a *mudaraba* agreement, while the participants are the *rab al-maal*. Investment profits are shared between the TO and the participants, while investment losses have to be borne by the participants.
- In principle, the underwriting surplus (surplus in the PRF) belongs to the participants. However, it has become a widespread practice that the TO will get a share of this surplus as an "incentive fee".

The *wakalah* model can be used in all kinds of *takaful* businesses, while the *mudaraba* approach requires substantial capital investments which make it better suited for family *takaful* (life *takaful*) than for general *takaful* as shown with relevant cash flows in Fig. 8.3. In practice, *takaful* undertakings usually combine all three elements.

8.2.4 Summary of Takaful *Operating Models*

As explained above there are three *takaful* operating models, those are summarised below for your convenience.

(a) ***Mudaraba* Model**

In a *mudaraba* model, the TO acts as a *mudarib* (entrepreneur) and the *takaful* participants as *Rab-ul-mal* (capital provider). As *mudarib*, the TO manages both investment and underwriting (of risk) activities on behalf of the *takaful* participants. In return, the TO is remunerated by a predetermined percentage share in the investment profit and/or underwriting surplus, which usually would be stated explicitly in the *takaful* contract. The TO and *takaful* participants cannot unilaterally alter

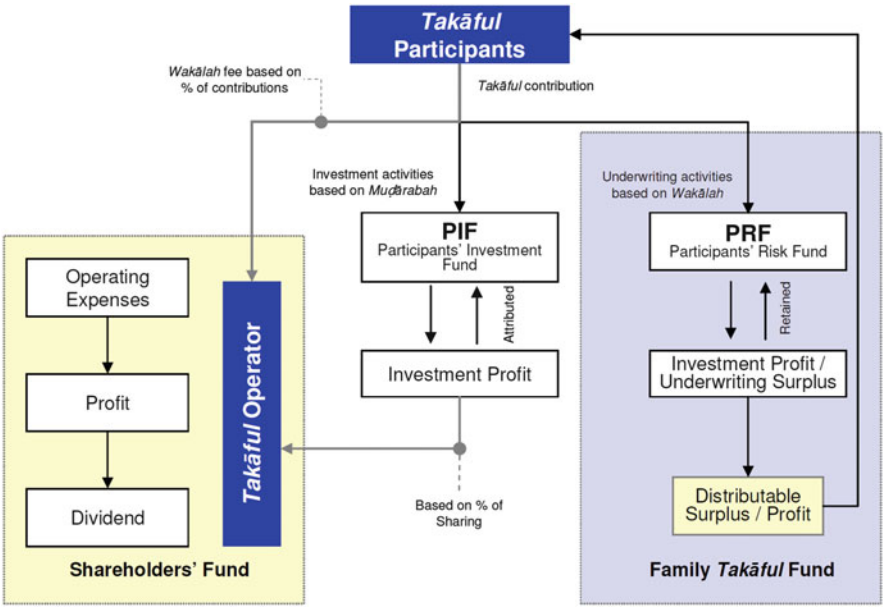


Fig. 8.3 Hybrid *wakala-mudaraba*-based *takaful* model

the agreed sharing ratio of the investment profit and/or underwriting surplus once the contract is signed. Any financial losses suffered from the investment and underwriting activities are to be borne solely by the *takaful* participants as the *Rab-ul-mal*, provided that the losses are not attributable to the TO's misconduct or negligence. In this regard, the TO can generally expect to make a profit only by ensuring that the expenses of managing the *takaful* operation are less than the total share of investment profit and/or underwriting surplus it may receive (IFSB 2009).

(b) ***Wakala* Model**

Under this model, the TO and the *takaful* participants form a principal–agent relationship whereby the TO acts strictly as a *wakil* (agent) on behalf of the *takaful* participants as the principal, to run both the investment and underwriting activities. In return for the service rendered by the TO as wakil, the TO receives a management fee, called a *wakala* fee, which is usually a percentage of the contributions paid. The *wakala* fee must be pre-agreed and expressly stated in the *takaful* contract. For the TO, the *wakala* fee is expected to cover the total sum of: (a) management expenses; (b) distribution costs, including intermediaries' remuneration; and (c) a margin of operational profit to the TO. In this respect, a TO will be profitable if the *wakala* fee it receives is greater than the management expenses incurred. It also does not directly share in the risk borne by the *takaful* fund or any of its investment profit or surplus/deficit. In addition, the *wakala* model may permit the TO to receive part of its remuneration as *wakil* in the form of a performance-related fee, as an additional incentive. A performance-related fee, as agreed in the *takaful* contract, is typically

related to the underwriting outturn. Subject to maintaining adequate reserves as capital within the fund for solvency purposes, there is no need for any underwriting surplus from the participants' perspective. However, the level of participants' contributions needs to be set high enough to allow for the payment of a reasonable *wakala* fee, including any performance-related element (IFSB 2009).

(c) ***Wakala–Mudaraba* Model**

Under this model, the *wakala* contract is adopted for underwriting activities, while the *mudaraba* contract is employed for the investment activities. For a better illustration of how the *mudaraba* and *wakala* models work, the generic flows of funds under these *takaful* models are shown in Figs. 8.2 and 8.3.

8.3 Governance Issues Related to *Takaful*

The hybrid character of *takaful* undertakings gives rise to large number of governance issues. The fundamental problem is that the operator is a for-profit joint stock company, which only manages risks but does not take on risks by itself. Possible negative consequences of excessive risk taking, or poor risk management are externalised and do not directly affect the shareholders. Those who take decisions don not bear the full consequences of the decisions.

TOs benefit from a maximum number of contracts, which may lead to the acceptance of too many "bad risks". They also benefit from high contributions even if surpluses were refunded to the participants at the end of the year. The reason is that bad risks affect the participants, while more contracts and higher contributions benefit the operator. Since all fees are calculated on the basis of gross contributions, they remain with the operator even if a net surplus is finally refunded to the participants (Htay et al. 2012).

Because of such conflicts of interest, *takaful* operators should be more transparent than conventional insurance companies. The corporate law typically gives the shareholders much more information rights than "outside" stakeholders, such as customers of a company. However in a *takaful* setting, 'customers' are not outside stakeholders, but the ultimate risk bearers and integral parts of any *takaful* undertaking. Therefore, the application of the same disclosure rules to conventional insurance companies and to TOs is hardly sufficient since they do not give the risk-bearing participants a complete and reliable picture of their risk exposure and the efficiency of the management of the TO. But disclosure and transparency are only the first step towards an effective protection of participants' interests. They should somehow get a voice in the decision-making bodies of the *takaful* operator. This could be, for example, an advocate of participants' interest in the board of directors or a special committee with participation rights for participants' representatives.

Thus, good governance practices require that appropriate disclosures be made to all stakeholders in order to contribute to a well-functioning information environment. The existence of such an environment, where material and relevant

information is readily accessible, results in more effective accountability and thus helps to safeguard the integrity of *takaful* undertakings, as well as guiding potential *takaful* participants in their decisions on whether or not to participate in a *takaful* scheme. Adequate disclosure assists potential and existing *takaful* participants, as well as other market participants, to evaluate the financial standing of *takaful* undertakings and the risks to which they are exposed. Such disclosure should include the availability of, and conditions relating to, a *qard* facility from the TO to a PRF facing insolvency (Frenz and Younes 2010).

In regard to all the above, the quality of information disclosed to the public is heavily dependent on the standards and practices applied in its preparation and presentation. It should be noted that, especially in family *takaful*, appropriate and reliable disclosure could be a major factor in establishing a long-term relationship based on confidence on the part of the *takaful* participants towards the *takaful* undertaking and its TO. The investment products of family *takaful* undertakings, being Shariah compliant, generally do not provide guarantees regarding the amount of the *takaful* benefit payable. For example, pension products operate on a "defined contribution", rather than a "defined benefit", basis. The benefits depend on the performance of the assets in the relevant fund, which are exposed to market risk (IFSB 2009).

The risk profile is, thus, different from that of conventional insurance products, where guarantees are normally given in terms of maturity benefits, surrender benefits and death benefits. This has an impact on the risk management and solvency strategies, as well as on the appropriate disclosures regarding *takaful* schemes. In principle, a clear separation is required in family *takaful* between the assets of the PRFs and those of the PIFs, as well as between the assets of the *takaful* fund and those of the shareholders' funds. Commingling of the PIF's and the shareholders' funds would raise governance concerns regarding potential conflicts of interest. Accordingly, the accumulation of investment profits in the PIFs requires transparent methods of profit calculation and accounting, as well as an efficient accounting system to record the declared PIF's profit and credit it to the respective *takaful* PIF (IFSB 2009; Archer et al. 2009).

While all corporations are subject to problems of asymmetric information, *takaful* undertakings, like other financial institutions, are particularly opaque, which makes it very difficult for the public to monitor and evaluate them. This opaqueness may make it easier and more likely for a TO to exploit its position as the manager of a *takaful* undertaking to act in its own interests, taking advantage of the private benefits of control. It is a commonplace that most insurance, outside compulsory lines, such as motor and (sometimes) health, is "sold", rather than "bought". In circumstances where the initiative lies with the seller, potential *takaful* participants will have even less chance than usual to evaluate the financial performance of a TO. Thus, adequate disclosure at the point of contract should be made by a TO to potential *takaful* participants.

In addition to information about *takaful* principles and the financial situation of the undertaking, it is necessary to provide information about specific products. Where appropriate, this should include information on investment policies and

practices. Particularly in the case of unit-linked *takaful* products, appropriate and timely disclosure would assist the *takaful* participants in making an informed decision on their selection or choice of the investment portfolio in which to place their funds with the TO. It should be noted that the IFSB Guiding Principles on Conduct of Business for Islamic Financial Institutions (IFSB Guiding Principles on Governance for *Takaful*, 2009), and in particular the principles relating to honesty and fairness and information to clients, are applicable.

It is sometimes difficult to strike a balance between providing enough information to help *takaful* participants understand the *takaful* product in which they are about to participate, or have already participated in, and overloading them with information. This is particularly so for certain *takaful* products that can be difficult to understand and explain concisely. Hence, disclosure can only meet specific aims of good governance, but not necessarily all aims. Its effectiveness will be limited by the extent of *takaful* participants' appetite for information and their ability to understand and act on it (IFSB 2009).

A key issue that needs to be addressed is how to get the right balance so that the amount of information provided before and after the point of contract helps, rather than hinders, *takaful* participants' understanding of the scheme. *Takaful* contracts and product information tend to be drafted in legalistic and protective terms, with the aim primarily of protecting the TO, rather than of plainly informing the *takaful* participants of their rights and obligations. Ordinary *takaful* participants would need help in understanding the provisions of the contract into which they were about to enter or had already entered (IFSB 2009). After the signing of the contract, although *takaful* participants are generally not in a position to be entitled to vote in general meetings or to pass resolutions on the appointment of directors and auditors, or to intervene in the management of the *takaful* funds, this does not mean they should not have access to appropriate information in order to monitor the performance of the *takaful* funds. With particular respect to family *takaful*, without adequate and timely disclosure it would be difficult for *takaful* participants to exercise their exit option by simply terminating their *takaful* contract (Archer et al. 2009).

Hence, the strength of the exit option that is available to the *takaful* participants could very much depend on the availability of information for *takaful* participants to use in evaluating the performance of the *takaful* funds or having an appropriate organ of governance to oversee and protect the interests of *takaful* participants, where the organ of governance could act as a "voice option" for the *takaful* participants. It is acknowledged that additional disclosures may entail higher costs, which may be passed on directly or indirectly to the *takaful* participants. This may also have an impact on the competitiveness of the *takaful* undertakings, and hence should be appropriately weighted against the potential benefits (IFSB 2009). As a rule of thumb, disclosure should be based on the obligations set out in the contractual relationship between the TO and its *takaful* participants, and should include:

(a) disclosures before and/or after the point of contract; and
(b) periodical disclosures in the form of quarterly reports, semi-annual reports and annual reports.

8.4 Accounting Treatment of Charity-Based Contracts: *Takaful*

The accounting treatment of insurance contracts is set out in the IAS 4. The standard sets out the applicable accounting scope by stating that an entity shall apply this IFRS to:

(a) insurance contracts (including reinsurance contracts) that it issues and reinsurance contracts that it holds.
(b) financial instruments that it issues with a discretionary participation feature. IFRS 7 Financial Instruments: Disclosures requires disclosure about financial instruments, including financial instruments that contain such features.

8.4.1 IFRS Treatment

This IFRS rule does not address other aspects of accounting by insurers, such as accounting for financial assets held by insurers and financial liabilities issued by insurers (see IAS 32 Financial Instruments: Presentation, IAS 39 Financial Instruments: Recognition and Measurement, IFRS 7 and IFRS 9 Financial Instruments), except in the transitional provisions in paragraph 45.

IFRS 4 describes any entity that issues an insurance contract as an insurer, whether or not the entity is regarded as an insurer for legal or supervisory purposes. 6 A reinsurance contract is a type of insurance contract. Accordingly, all references in the IFRS 4 to insurance contracts also apply to reinsurance contracts. This IFRS has gone through different phases of revisions as illustrated in Fig. 8.4. This illustration is just for the benefit of the reader.

A TO shall disclose information that identifies and explains the amounts in its financial statements arising from *takaful* contributions. To comply with this accounting requirement, a TO shall disclose:

(a) its accounting policies for *takaful* contracts and related assets, liabilities, income and expense;
(b) the recognised assets, liabilities, income and expense (and, if it presents its statement of cash flows using the direct method, cash flows) arising from *takaful* contracts. Furthermore, if the TO is a cedant, it shall disclose:

- gains and losses are recognised in profit or loss on entering re-*takaful* contracts; and
- if the cedant defers and amortises gains and losses arising on buying re-*takaful*, the amortisation for the period and the amounts remaining unamortised at the beginning and end of the period.

(c) the process used to determine the assumptions that have the greatest effect on the measurement of the recognised amounts described in (b). When practicable, a

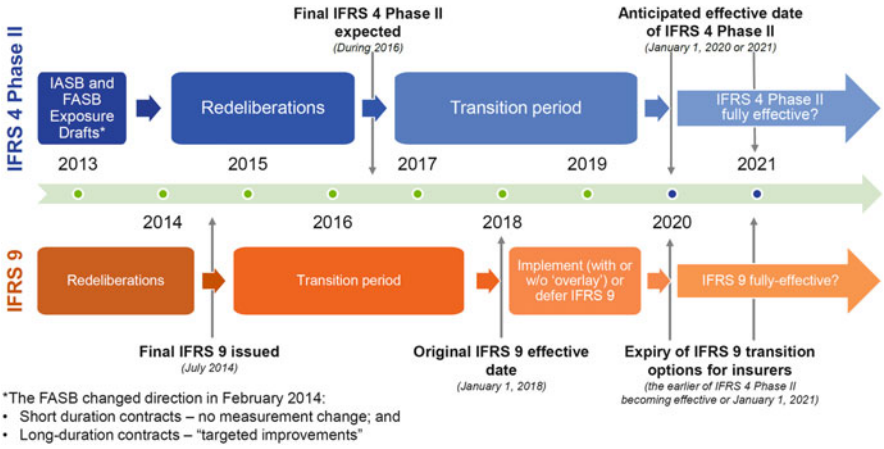


Fig. 8.4 Illustration of IFRS accounting changes (KPMG 2017)

TO shall also give quantified disclosure of those assumptions. This would include the operating *takaful* model requirements, such as the accounting of *mudaraba* investment in a general *takaful* or life *takaful* and any reserve accounts;

(d) the effect of changes in assumptions used to measure *takaful* fund assets and any liabilities due, showing separately the effect of each change that has a material effect on the financial statements;

(e) reconciliations of changes in the *takaful* fund liabilities, re-*takaful* assets and, if any, related deferred acquisition costs or *qard* repayment to the TO.

IFRS4 applies to all insurance contracts (including reinsurance contracts) that an entity issues and to reinsurance contracts that it holds, except for specified contracts covered by other IFRSs. (IFRS4, para IN3). However, it does not require companies to change their existing and varying accounting policies developed over time and it does not address accounting by policyholders.

In May, 2017, the International Accounting Standards Board (IASB) published the final draft of the International Financial Reporting Standard (IFRS) 17 Insurance Contracts accounting standard, along with several supporting documents with guidance and illustration. This new accounting framework impacts the insurance industry around the world and becomes effective for the 2021 reporting year. The standard applies a principles-based approach which requires interpretation, and practices will likely evolve differently in different markets. TO should use their judgement in applying IFRS 17 and tailor its accounting and reporting requirements to their operations and the principle of *takaful*, as I demonstrated herein regarding IFRS 4. Insurers transitioning to IFRS 17 may face significant challenges during its implementation. Primarily as an accounting-driven standard, IFRS 17 will require greater integration of actuarial and accounting systems, creating significant operational challenges related to data, processes, modelling, governance, and auditability.

IFRS 17 introduces significant changes into the financial accounting process. This includes data, models, and tools to support market-consistent valuation of liabilities, as

required by the new IFRS 17 standard. Among the new requirements and depending on which accounting model applies, IFRS 17 introduces the need for insurers to generate new revenue recognition profiles, new balance sheets, and revenue items using several new or revised calculations (as shown in Fig. 8.5), including:

- Present value of expected future cash flows on an IFRS 17 best estimate basis.
- Risk adjustment to reflect the uncertainty in the non-finance cash flows.
- Contractual service margin, which is a new calculation representing unearned profit. This item already exists in Islamic insurance reporting as the service agency fee of TO is reported under IFRS 4, as this is a Shariah requirement.

8.4.1.1 From the Perspective of the Entity Issuing Takaful Contracts

A TO will recognise a *takaful* contract in the statement of financial position as a liability, measured at the present value of future net cash flows.

At each reporting date a TO needs to assess whether its recognised *takaful* contracts liabilities are adequate (the 'liability adequacy test'), using current estimates of future cash flows under its *takaful* contracts.

Where the result of this test would be a loss, the loss should be recognised immediately. Where the result of this test would be a gain, the gain is recognised systematically over the lifetime of the *takaful* contract, by creating a residual margin, including the effects of the time value of money, of course for the avoidance of doubt this is not the case in any debt and in particular any *qard* provided by the TO to the *takaful* fund in the an event of deficit.

8.4.1.2 From the Perspective of the Entity Participating in Takaful Contracts

Where a TO or re-*takaful* operator recognises a liability (for example, to provide legal compensation following a claim), and this liability is wholly or partially offset by a *takaful* contract, then the two amounts will be shown separately in the financial statements. A TO will also disclose the details of the extent to which its re-*takaful* arrangement covers its liabilities. Just for clarity here a distinction should be made in this context between the role of a TO as a service agent for the *takaful* scheme and the role of a conventional insurer as the seller of the insurance policy. The IFRS accounting treatment do not take any such distinctions into account.

> Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party (i.e. via a re-*takaful* contract), the reimbursement shall be recognised when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset. The amount recognised for the reimbursement shall not exceed the amount of the provision.
>
> In the statement of comprehensive income, the expense relating to a provision may be presented net of the amount recognised for a reimbursement. (IAS37, paras 33–34)

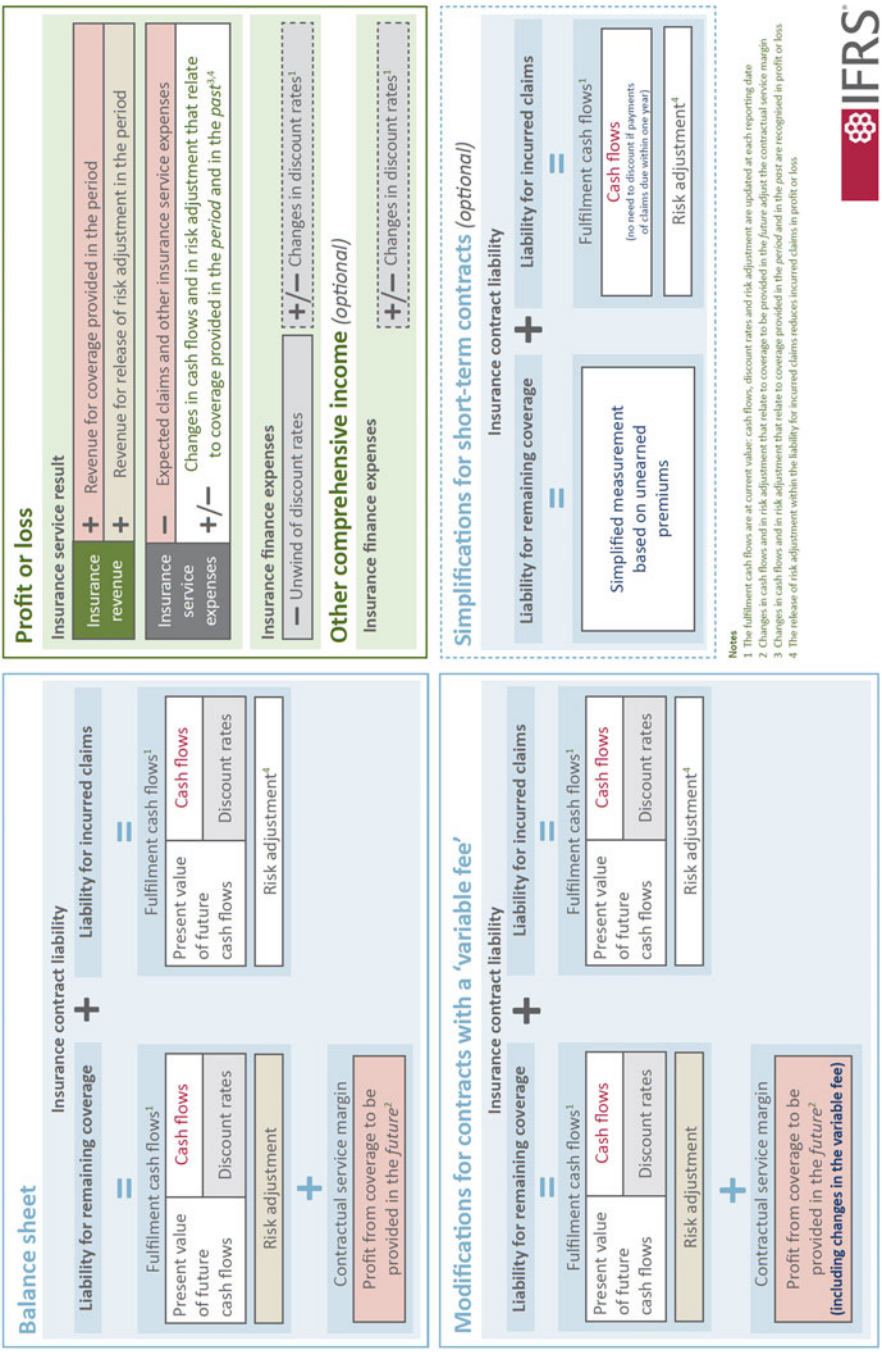


Fig. 8.5 IFRS 17 accounting model (source: IFRS Foundation)

8.5 Accounting Treatment of a *Takaful*-Based Alternative Student Finance

In my previous book entitled 'Financial Innovation and Engineering in Islamic Finance' 2017, I outlined a concept and a structure of a new financial innovation that I structured for the UK Government. This innovation was structured with the objective of offering Shariah compliant Alternative Student Finance alongside the student loans scheme provided currently by the UK Government, which will ensure financial inclusion of those who are prohibited to take interest-based loans due to their religious beliefs. After a careful analysis of various Islamic finance principles, I came up with a *Takaful*-based student finance structure that was the best fit for this new scheme. *Takaful* as an Islamic finance principle has been always associated with Islamic insurance, however for the first time I structured the principle of *Takaful* as a financing product and instrument in the Islamic finance industry to address this social problem and help the UK Government in that regard. The name I coined for this financial innovation is Takaful Alternative Student Finance (TASF). Therefore, as a new financial innovation it is important for me to set out the appropriate accounting treatment of this new financial innovation in order to complete the development of the full life cycle of the TASF. However, before I do that it is may be worth summarising briefly the structure of this innovation here, so you would have the full picture of how this new innovation works and its accounting treatment.

In September 2012 changes to higher education funding in the UK meant that British students were able to take out student loans for tuition of up to £9000 for each year of study. These post-2012 student loans carry a different rate of interest, above inflation, to student loans issued before September 2012. The 2012 reforms regarding student loans have a real positive rate of interest. This has deterred some prospective students who feel unable to use interest-bearing loans for religious reasons, particularly some Muslim students, from participation in higher education. Due to the 2012 reforms the UK Government mentioned that some students will not access higher education in these circumstances, some will access higher education and use loans but will be troubled by their situation, and others will restrict their choice of course or institution to try to minimise the sums involved (Alamad 2017a).[1]

The UK Government was aware that some students, whose religious beliefs may forbid the taking out of a loan that bears interest, may be unable to take advantage of student loans because of this change. This could make it more difficult for them to benefit from higher education. At that time as an expert in the Islamic finance industry, I received many requests from Muslim students and community leaders in the UK to try and find a solution. I felt at that time that this responsibility falls on my shoulders as a British Muslim first and then as an expert in the Islamic finance industry to find a solution for this social problem. However, this solution would

[1] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523396/bis-16-265-success-as-a-knowledge-economy.pdf

require bringing the government on board and working with them as the solution would need to be provided by them eventually (Alamad 2017a).

The UK Government started exploring the possibility of making an alternative student finance product available. This finance product would be Shariah compliant and overseen by a Shariah advisory committee (Alamad 2017a). However, any such alternative finance product would not result in a student being in any way disadvantaged or advantaged over a student who took out a traditional student loan. Both the size of the finance and the repayment amounts would be equivalent between the two systems. The model of the proposed product could be applied for in the same way as a traditional loan: through the Student Loans Company (SLC). This was a real challenge in terms of finding a Shariah compliant solution that meets the required criteria by the government.

The UK Government sought the views of Islamic finance experts in the UK and beyond regarding the potential solution. I was contacted by the Government at that time, in 2012, through the Department for Business, Innovation and Skills (BIS) to help in finding a solution. This provided the platform for me to discharge my social responsibility and try to find a viable Shariah compliant alternative, and the work started to achieve this objective. I started the process of finding a solution by exploring and examining various possible Islamic finance principles and structures. For example, a Mudaraba structure was considered, however it was not viable as both the product requirements and the Shariah requirements cannot be achieved with this Islamic finance principles. Similarly, with a possible Wakala structure both requirements cannot be achieved as both Mudarbah and Wakala are equity-based Islamic finance principles.

The analysis of various possible contracts of exchange as a solution for the alternative student finance led me to a new innovative idea and structure, the TASF. Islamic mutual model was established in the early second century of the Islamic era (eighth century), as mentioned in previous sections of this chapter, when Muslim Arabs expanding trade into Asia all mutually agreed to contribute to a fund to cover anyone in the group who incurred mishaps or robberies during the numerous sea voyages. Forms of mutual insurance arrangements existed in the early years of Islam.

Islamic jurists acknowledge that the basis of shared responsibility in the system of *Aquila*, as practised between Muslims of Mecca and Medina, laid down the foundation of Islamic mutual insurance. This financial innovation is based on what was known as *al-Nihd*, this concept is the basis of the *Takaful* structure, which I have chosen as the most appropriate solution for an alternative student finance product. It was a practice that originated in a group of travellers making a contribution of provisions towards a collective pot to either be shared out between the travellers equally or to allow the travellers to partake from the collective pot. The contribution itself was known as *al-Nihd*. This practice raised the question as to whether the contribution of the same type, for example, dates, resulted in the incidence of *riba* if one received a share that was disproportionate to one's contribution.

It is, therefore, not a case of exchange which would result in *riba* if it occurred in unequal amounts in the same genus or if either or both counter-values were deferred. It is also not a case of proprietary transfer through a gift, as gifting requires an offer, acceptance and possession. Rather, it is simply a case of retaining ownership of one's

contribution and allowing others to benefit from it out of compassion and mutual cooperation. Takaful is a Shariah compliant system of mutual contribution and protection, in which the participants donate part or all of their contributions to a common fund for a specified purpose. The word Takaful comes from the root *kafala*, which means to be or become responsible, answerable, accountable, or guarantee for assets owed by another person (Alamad 2017a).

The Shariah requirements are principally achieved by substituting the compensatory basis of conventional interest-based student loans or other Islamic finance principles (that were also explored above) with one of a gratuitous offering, otherwise referred to as a donation. Within the Shariah, a contract made under the principle of a donation, without an element of exchange, removes the prohibited elements of *riba* (interest) and the exchange of mutually deferred counter values and allows the toleration of uncertainty (*gharar*) or lack of information (*jahalah*). Therefore, the proposed alternative TASF is a Shariah compliant Takaful structure, as it does not involve any exchange and is instead initiated by a gratuitous offering (Alamad 2017a).

This gratuitous offering was further engineered in order to achieve specific requirements set by the government that aim to ensure contributions are made by the participating students who already benefited from this scheme. This was achieved by ensuring that the *Takaful* structure is backed up by a unilateral promise by the student to contribute back to the *Takaful* fund in accordance with the terms and conditions of the scheme. The exchange factor is eliminated here under the *Takaful* structure (as shown in Fig. 8.6), whereas students mutually contributing for the benefit of all of the participants in the fund i.e. all of them, instead of having a contract of exchange for each one of them separately with the government (as the other party to the contract) on e.g. a *Wakala* basis or a *Mudaraba* basis (Alamad 2017a).

The TASF structure as shown in Fig. 8.6 is further explained and illustrated in the following example and the subsequent sections, particularly Section (b) Output. The Department for Education will establish the TASF scheme as an independent entity, which will be ring-fenced from the existing student loans system. HM Treasury will provide the initial funding and any subsequent funding to the TASF scheme on the basis of interest-free loan that would be paid back at any point in the future. The TASF appoints the Student Loans Company (SLC) as the administrator or in other words the Takaful Operator (TO) under a service agency agreement for a service agency fee based on the RPI and a margin determined and set annually. The SLC would provide all required services, which would be similar to the services it provides for the existing student loans using the same system and platform. Except when Shariah rules and the *Takaful* requirements diverge, then the process for administering the TASF would separate from the existing one to satisfy all such requirements and ensure compliance with Shariah rules. A set of separate legal, marketing and process documents including system interfacing and website application would be developed for the TASF along other specific processes. Also, to ensure Shariah governance is maintained a Shariah Supervisory Committee for TASF scheme would be appointed.

Any student can apply to the TASF scheme for finance signing the scheme rules and legal agreement to participate in the scheme. The finance would be paid in the same way to fund tuition fees and any maintenance finance is paid to the student

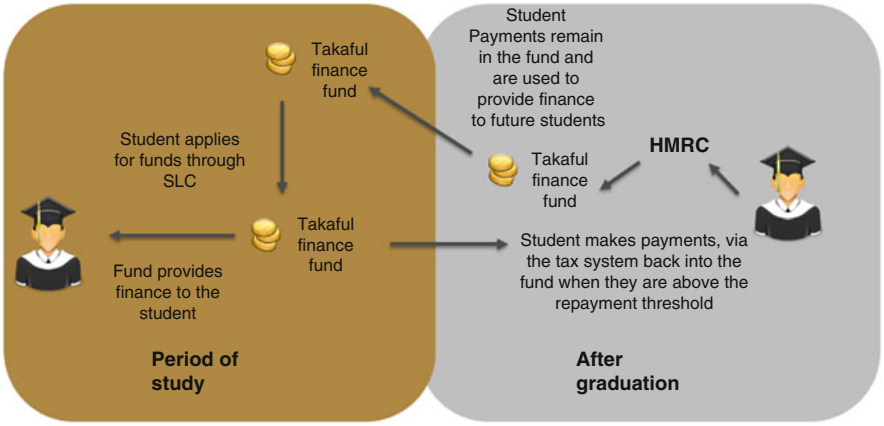


Fig. 8.6 Structure of the *Takaful* Alternative Student Finance solution

bank account. A student would be expected to pay during the study until statutory repayment date of 6th April after finishing or leaving the university course a contribution of RPI + 3% as the benchmark for the service agency fee (that is collectable at the time when the student is required to make the payment). Then based on income up to £25k (this was increased from £21,000 in April 2018) a contribution of RPI would be payable, between an income of £25k and £41k a contribution of RPI + up to 3% depending on income and an income over £41k a contribution of RPI + 3%, subject to what has been mentioned above in terms of being in accordance with the Shariah requirements for the TASF as a service agency fee. Regardless of the level and at what threshold students are required to start contributing back to the TASF, the same principle would apply, as mentioned above, and this would not affect the service agency fee.

The Takaful contribution deducted from students would be based on a percentage (9%) of the salary according to the threshold set by the Government, which constitutes of two elements paying the specified finance amount taken from the Takaful fund and the agency fee. However, students make one takaful contribution to the TASF scheme and the two elements of the contribution are managed internally by the SLC. The Takaful contribution is collected as a percentage by HMRC via the PAYE tax system and then reconciled in a later stage and allocated operationally back to TASF scheme and accounted for accordingly.

Following a successful transfer of the idea of the *takaful*-based alternative student finance into a full workable and viable structure, a public consultation was issued in 2014.[2] The consultation was received with a widespread acceptability and positivity by Muslim and non-Muslim communities in the UK on all levels. The work continued since then to address any further details and engineer the required Shariah

[2] https://www.gov.uk/government/consultations/sharia-compliant-student-finance

solution in accordance with the chosen structure. This eventually led to the issuance of the Higher Education and Research Bill that includes a power to enable the Secretary of State to offer alternative student finance (ASF) alongside his current powers to offer grants and loans.[3] This innovative structure as I designed it is being currently, at the time of writing, implemented to be hopefully offered to students by the UK Government in the academic year 2020. The TASF represents an ethical and cooperative student finance model where students, who benefited from the TASF scheme and are in employment, pay back to the scheme for the study and benefit of future students. Those students could be their younger siblings, cousins, relatives and their future children, and the cycle goes on. Thus, students funding themselves via the TASF rather than borrowing from the UK Government, which will also reduce the level of defaulted loans, as students participating in the TASF scheme have a social and ethical, as well as legal, responsibility to contribute back to this scheme for the benefit and study of future students.

8.5.1 TASF IFRS Accounting Treatment

IFRS requires that transactions are accounted for in accordance with its economic substance rather than the legal form. IAS32 Financial Instruments: Presentation requires the issuer of a financial instrument to classify the financial instrument as a financial liability, a financial asset or an equity instrument. The classification should be made in accordance with the substance of the contractual arrangement (IAS32, para 15).

The Conceptual Framework for Financial Reporting gives guidance to preparers of financial statements on the objective of financial reporting and the principles to be used in recognising and measuring the elements of financial statements i.e. assets, liabilities, equity, income and expenses. The principles in the Conceptual Framework inform the content of individual standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

The Conceptual Framework first identifies the objective of general purpose financial reporting as being:

> to provide financial information about the reporting entity (in our case here this would be the TASF scheme) that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity, (CF para OB2).

It follows that users of the financial statements require information about the resources available to an entity and any claims on those resources.

Next, the Conceptual Framework sets out the qualities of useful financial information, and identifies that, to be useful, financial information must (i) be relevant to users and (ii) must faithfully represent the underlying economic substance of the situation. For the TASF it is finance arrangements of a gratuitous nature with a

[3] https://www.gov.uk/government/collections/higher-education-and-research-bill

unilateral promise for a legally binding contribution back to the TASF scheme. The preparer of financial statements should make decisions about what financial information to include and how to present it as follows:

> (a) Identify an economic phenomenon that has the potential to be useful to users of the reporting entity's financial information.
> (b) Identify the type of information about that phenomenon that would be most relevant if it is available and can be faithfully represented.
> (c) Determine whether that information is available and can be faithfully represented. (CF, para QC18)

From the principles above, it follows that in identifying and measuring the assets and liabilities of the TASF scheme, the economic substance of providing student finance and then collecting students' contribution back to the TASF, rather than simply their legal form, should be reflected in financial statements. In other words, the TASF scheme will recognise an asset when it has control of a resource and expects to get the economic benefits associated with that resource, rather than when it has legal title to a specific object. Thus, a student takaful contribution is accounted for as a legal obligation, but only recognised as assets when received by the TASF scheme.

The definitions of the elements of financial statements are as follows:

> An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
>
> A liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.
>
> Equity is the residual return in the assets of the entity after deducting all its liabilities. (CF para 4.4)

Income and Expenses are defined, respectively, as positive or negative changes in the net assets available in the TASF scheme, i.e. a change in financial position which results in a net increase or decrease in TASF assets pool. There should not be, however, a split of the principal and return because the total student's contribution is treated as an income from an accounting perspective due to the charitable nature of this arrangement, in contrast to a contract of exchange.

Income increases economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from Takaful participants.

Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to other Takaful participants (CF para 4.25).

An asset or a liability is recognised when (i) it is probable that the future economic benefit associated with it will flow to or from the entity; and (ii) the item can be measured reliably, with reference to cost or value (CF para 4.38).

From these principles, the importance of the concept of substance over form, disused at length herein, can be highlighted and used to further explain the rationale behind the accounting treatment of the TASF agreements. Thus, according to this argument the TASF scheme will recognise a financial asset under IFRS 9, which is

measured at fair value based on future cash flows that they expect to receive. The student will recognise the underlying asset (i.e. finance provided by the TASF scheme), and a financial liability for the cash flows that it will pay to the TASF scheme in the future when the student is in employment and his/her annual salary reaches the applicable threshold. Whereas; the lender would make a profit through charging interest in the existing non-Shariah compliant student loans system. Under the TASF, the scheme's profit, if any, is achieved by the difference between the finance amount provided to students and service agency fee charged.

While this view could be adopted from an accounting treatment perspective, in reality it might be contested by the Shariah requirements for such finance arrangements in relation to the accounting of bad debt provisions and defaults. Shariah stipulates, as discussed above, that Takaful is a charitable contract and its accounting principles should be observed in the operational process. However, the existing Government's rules and policies regarding repayments of students' loans and write off of bad debts in certain circumstances would provide, with some changes and tweaks, a suitable platform for formulating the accounting treatment of the TASF as I illustrated above. I have provided below a practical example to show how this works and the students' takaful contribution profile and its calculation, and how this can be reported and accounted for.

(a) Assumptions

All inputs to the model to flex it are accurate as much as possible at the time of writing. Variables which it makes sense to flex to test the calculations. Dates are input here but cannot be flexed.

Constants and Assumptions

- 3% Benchmark agency fee rate during study period, above RPI.
- £25,000 Lower income limit.
- £41,000 Upper income limit used for agency fee rate calculations.
- 3% Maximum agency fee rate post education, above RPI.
- 9% Takaful contribution rate applied to income over lower threshold, whereas 9% is tax rate deductable via PAYE tax system and consists of total student contribution to the Takaful finance scheme i.e. agency fee plus the amount of finance

		Start of year	End of year
£9000	Tuition fee year 1	01/09/2015	31/08/2016
£9000	Tuition fee year 2	01/09/2016	31/08/2017
£9000	Tuition fee year 3	01/09/2017	31/08/2018
The compute 30 years of post-education calculations, ending on			31/03/2048

(b) Output

Start period	End period	Applicable RPI increase, year ended on this date		Income related addition to service agency fee	Total service agency fee	Agency charge for the year £	Income	Income over basic threshold	Amount collected by scheme administration company SLC	Student total contribution payment
Takaful student finance position during study period										
01/09/2015	31/08/2016	3.50%	31/03/2015	0	6.50%	585	0	0	0	9585
01/09/2016	31/08/2017	3.51%	31/03/2016	0	6.51%	586	0	0	0	19,171
01/09/2017	31/08/2018	3.52%	31/03/2017	0	6.52%	587	0	0	0	28,758
Takaful student finance position post study period										
		3.52%	31/03/2018							
01/09/2018	31/03/2019	3.53%	31/03/2019	0.60%	4.13%	693	25,000	4000	360	−360
01/04/2019	31/03/2020	3.54%	31/03/2020	1.35%	4.89%	1423	30,000	9000	810	−810
01/04/2020	31/03/2021	3.55%	31/03/2021	2.10%	5.65%	1678	35,000	14,000	1260	−1260
01/04/2021	31/03/2022	3.56%	31/03/2022	2.85%	6.41%	1931	40,000	19,000	1710	−1710
01/04/2022	31/03/2023	3.57%	31/03/2023	3.00%	6.57%	1994	45,000	24,000	2160	−2160
01/04/2023	31/03/2024	3.58%	31/03/2024	3.00%	6.58%	1986	50,000	29,000	2610	−2610
01/04/2024	31/03/2025	3.59%	31/03/2025	3.00%	6.59%	1948	55,000	34,000	3060	−3060
01/04/2025	31/03/2026	3.60%	31/03/2026	3.00%	6.60%	1877	60,000	39,000	3510	−3510
01/04/2026	31/03/2027	3.61%	31/03/2027	3.00%	6.61%	1772	65,000	44,000	3960	−3960
01/04/2027	31/03/2028	3.62%	31/03/2028	3.00%	6.62%	1630	70,000	49,000	4410	−4410
01/04/2028	31/03/2029	3.63%	31/03/2029	3.00%	6.63%	1448	75,000	54,000	4860	−4860
01/04/2029	31/03/2030	3.64%	31/03/2030	3.00%	6.64%	1224	80,000	59,000	5310	−5310
01/04/2030	31/03/2031	3.65%	31/03/2031	3.00%	6.65%	954	85,000	64,000	5760	−5760
01/04/2031	31/03/2032	3.66%	31/03/2032	3.00%	6.66%	635	90,000	69,000	6210	−6210
01/04/2032	31/03/2033	3.67%	31/03/2033	3.00%	6.67%	264	95,000	74,000	6660	−6660
01/04/2033	31/03/2034	3.68%	31/03/2034	3.00%	6.68%	–	100,000	79,000	–	–
01/04/2034	31/03/2035	3.69%	31/03/2035	3.00%	6.69%	–	105,000	84,000	–	–
01/04/2035	31/03/2036	3.70%	31/03/2036	3.00%	6.70%	–	110,000	89,000	–	–

(continued)

Start period	End period	Applicable RPI increase, year ended on this date		Income related addition to service agency fee	Total service agency fee	Agency charge for the year £	Income	Income over basic threshold	Amount collected by scheme administration company SLC	Student total contribution payment
01/04/2036	31/03/2037	3.71%	31/03/2037	3.00%	6.71%	–	115,000	94,000	–	–
01/04/2037	31/03/2038	3.72%	31/03/2038	3.00%	6.72%	–	120,000	99,000	–	–
01/04/2038	31/03/2039	3.73%	31/03/2039	3.00%	6.73%	–	125,000	104,000	–	–
01/04/2039	31/03/2040	3.74%	31/03/2040	3.00%	6.74%	–	130,000	109,000	–	–
01/04/2040	31/03/2041	3.75%	31/03/2041	3.00%	6.75%	–	135,000	114,000	–	–
01/04/2041	31/03/2042	3.76%	31/03/2042	3.00%	6.76%	–	140,000	119,000	–	–
01/04/2042	31/03/2043	3.77%	31/03/2043	3.00%	6.77%	–	145,000	124,000	–	–
01/04/2043	31/03/2044	3.78%	31/03/2044	3.00%	6.78%	–	150,000	129,000	–	–
01/04/2044	31/03/2045	3.79%	31/03/2045	3.00%	6.79%	–	155,000	134,000	–	–
01/04/2045	31/03/2046	3.80%	31/03/2046	3.00%	6.80%	–	160,000	139,000	–	–
01/04/2046	31/03/2047	3.81%	31/03/2047	3.00%	6.81%	–	165,000	144,000	–	–
01/04/2047	31/03/2048	3.82%	31/03/2048	3.00%	6.82%	–	170,000	149,000	–	–

The SLC shall disclose information that identifies and explains the amounts in its financial statements arising from *takaful* finance and contributions. To comply with this accounting requirement, the SLC shall disclose:

(a) its accounting policies for TASF contracts and related assets, liabilities, income and expense;
(b) the recognised assets, liabilities, income and expense (and, if it presents its statement of cash flows using the direct method, cash flows) arising from TASF contracts.

8.5.1.1 From the Perspective of the TASF Scheme as the Entity Issuing Takaful Contracts

The SLC as the administrator of the TASF scheme will recognise a *takaful* contract in the statement of financial position as an asset, measured at the present value of future net cash flows.

At each reporting date the SLC needs to assess whether its recognised *takaful* contracts assets and liabilities are adequate (the 'asset/liability adequacy test'), using current estimates of future cash flows under its *takaful* contracts.

Where the result of this test would be a loss, the loss should be recognised immediately. Where the result of this test would be a gain, the gain is recognised systematically over the lifetime of the *takaful* contract, by creating a residual margin, including the effects of the time value of money, of course for the avoidance of doubt this is not the case in any debt and in particular any *qard* provided by HM Treasury (the Government) to the TASF scheme in the event of deficit.

> Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party e.g. HMRC or SLC after reconciliation, the reimbursement shall be recognised when, and only when, it is virtually certain that reimbursement will be received if that party settles the obligations. The reimbursement shall be treated as a separate asset. The amount recognised for the reimbursement shall not exceed the amount of the provision.
>
> In the statement of comprehensive income, the expense relating to a provision may be presented net of the amount recognised for a reimbursement. (IAS37, paras 33–34)

8.6 Disclosure of Significant Accounting Policies for *Takaful*-Based Instruments

Disclosure by a TO or the SLC in the case of the TASF scheme should be made based on the party that meets the general and administrative expenses, and whether this party meets all or only part of these expenses. In normal *takaful* operating structures this party is the *takaful* fund that is managed by the TO. In some cases, the TO may bear part of these expenses, this would be clear in the terms of the service agency arrangements between the TO and the *takaful* fund and is accounted for

accordingly in its accounting policies. If the TO meets part of these expenses, disclosure should be made of the basis applied in determining this part and the governance body that approved it.

Such disclosure of the basis applied by the TO in calculating the following requirements, which affect *takaful* participants in the *takaful* scheme:

(a) Pre-operations expenditure,
(b) Reserve,
(c) Cost of assets used in operations
(d) Claims and compensations
(e) Treatment of commissions from non-Islamic reinsurance companies,
(f) Outstanding claims retained for re-*takaful* or reinsurance companies.

Disclosure should be made of the cash or accrual basis applied by the TO in determining the *takaful* participants' contributions, and the policy adopted in case a *takaful* participant withdraws or defers settlement of the premium contribution during the financial period. Disclosure should be also made of the basis applied by the TO in treating any current deficit and/or cumulative deficit from previous financial periods, and how such a deficit is to be accounted for in the current and subsequent financial periods, as explained above in relation to meeting such deficits by providing a *qard*.

Further disclosure should be made of the bases that govern the contractual relationship between *takaful* participants and shareholders of the TO as follows:

(a) Management of *takaful* operations,
(b) Investment of *takaful* participants' funds,
(c) Investment of shareholders' funds and the body that approved these bases.

Disclosure should be also made regarding the basis followed by the TO in determining the Zakat payment and its calculation, if the TO meets the criteria and is obliged to pay Zakat in accordance with its constitutional terms of incorporation.

8.7 *Waqf* (Endowment)

Waqf, in general, is the act of locking or limiting the use of something for a specified purpose, literally it means in Arabic (*habs*), which means preventing something from movement. From a Shariah perspective, Islamic scholars differed in its definition based on their school of thought. The main differences among them are in relation to whether *waqf* is binding or not, making *waqf* to relatives of the waqif (the person making the *waqf* from her/his own wealth), who owns the asset after affecting the *waqf* contract and whether an offer and acceptance is required for validity of *waqf* (Al-Baghawi 1983).

Al-Ramli and Ibn Hajar al-Haythamy from the Shafi'i school defined *waqf* as any *maal* (wealth) that can be benefited from without being perishable or consumed by

that benefit, and such benefit should be spent in permissible cause that exists under Shariah.

Ibn Qudamah al-Maqdisi from the Hanbli school defined *waqf* as locking a wealth for a certain purpose, but not the benefit.

Al-Sarkhasi from the Hanafi school defined *waqf* as locking what is owned by someone from being owned or transferred to someone else. Al-Marghinani, also from the Hanafi school added: holding an asset in the ownership of the *waqif* and donating any benefit derived from this asset as if it is a borrowed benefit.

Ibn 'Arafah from the Maliki school defined *waqf* as giving the benefit of something as long as it exists, while it still assumed to be owned by its donor.

Analysing the above definitions in light of the text of the Prophetic *Hadith* narrated by Omar Ib al-Khattab (see this *Hadith* below) shows that the definition of *waqf* provided by the Shafi'i and Hanabli schools is the closest to that text (Burhan al-Deen 1981).

Waqf is an important charitable instrument that the Quran referred to in various verses, "It is not al-Birr (piety, righteousness, and each and every act of obedience to God, etc.) that you turn your faces towards east and (or) west (in prayers); but al-Birr is (the quality of) the one who believes in God, the Last Day, the Angels, the Book, the Prophets and gives his/her wealth, in spite of love for it, to the kinsfolk, to the orphans, and to al-Masakin (the poor), and to the wayfarer, and to those who ask, and to set slaves free, performs As-Salat and gives the Zakat, and who fulfil their covenant when they make it, and who are patient in extreme poverty and ailment (disease) and at the time of fighting (during the battles). Such are the people of the truth and they are al-muttaqun", (Quran 2:177). Also, "By no means shall you attain al-Birr (piety, righteousness - here it means God's reward, i.e. Paradise), unless you spend (in God's cause) of that which you love; and whatever of good you spend, God knows it well" (Quran 3:92).

The legitimacy of *waqf* is also supported by sayings of the Prophet (pbuh) and the practices of his companions. Three of those sayings are mentioned here for reference: "Abu Huraira (ra) reported that Allah's Messenger (pbuh) as saying: When a man dies, his acts come to an end, but three, recurring charity, or knowledge (by which people) benefit, or a pious son, who prays for him (for the deceased)", (Al-Bukhari 1985). Also, narrated by Ibn Omar that Omar bin Khattab got some land in Khaibar and he went to the Prophet to consult him about it saying, "O Allah's Messenger I've got some land in Khaibar better than which I have never had, what do you suggest that I do with it?" The Prophet said, "If you like you can give the land as endowment and give its fruits as charity." So Omar gave it in charity as an endowment on the condition that it would not be sold nor given to anybody as a present and not to be inherited, but its yield would be given in charity to poor people, to the kith and kin, for freeing slaves, for Allah's cause, to the travellers and guests; and that there would be no harm if the guardian of the endowment ate from it according to his need with good intention, and fed others without storing it for the future." (Al-Bukhari 1985).

8.7.1 *An Overview of* Waqf

The origin of *waqf* is traced back to Prophet Muhammad (pbuh) and his companions. The two mosques, Quba mosque and the mosque of Prophet Muhammad (Masjid al-Nabawi) in Madina are examples of *waqf*. Moreover, Omar Ibn al-Khattab (ra) has donated a piece of land in Khaibar as *waqf*. However, the institution of *waqf* began to develop in the first century of the Islamic calendar and assumed a vivid legal form in the second century. Henry Cattan, in his book, "Law in the Middle East", stated that "the institution of *waqf* has developed with Islam and there is no evidence that such a complex system of appropriating usufruct as a life-interest to varying and successive classes of beneficiaries existed prior to Islam. Henry Cattan further discusses that the close resemblance between 'Trust' and '*Waqf*' naturally leads to an enquiry as to whether the English Trust was derived from the Islamic *waqf* (Al-Baghawi 1983).

There is no doubt that *waqf* is the earlier of the two institutions. The legal theory of *waqf* was developed during the eighth and ninth centuries CE and there are *waqf* today that were established more than one thousand years ago. The early description of *waqf* doctrines is found in the Mudanwana of Sahnun, in which he has collected the opinion of Malik Ibn Qasim and of other classical authorities of Medina. The book: Kitab Ahkam al-*Waqf* by Hilal contains authentic information on the doctrines of Abu Hanifa, his student Abu Yusuf and other early Islamic scholars. The earliest of such foundations in Egypt were based on charitable gifts, and not in the form of a *waqf*. The first mosque built by 'Amr ibn al-'Aas is an example of this, the land was donated by Ḳaysaba Ibn Kulthunum, and the mosque's expenses were paid for by *Bait al-Maal* (state treasury). The earliest known *waqf*, founded by financial official Abu Bakr Muḥammad Ibn ʿAli al-Madharai in 919 AH (Islamic calendar) during the Abbasid period, is a pond called Birkat Ḥabash together with its surrounding orchards, whose revenue was to be used to operate a hydraulic complex and feed the poor (Abu Zahra 1977).

The earliest description of *waqf* in India is found in a rare book, Insha-i-Mahru written by Aynul Mulk Multani, which contains letters written by him primarily to serve as models for elegant official correspondence. Nevertheless, it sheds a light on the social, economic and political life of that period. Letter number 16 describes *waqf* of Multan classified as (a) those created by "Salateen-e-Maaziah", i.e., "earlier kings"; and (b) those created by "Danishmandane Mashaikh" and Um'ara, which means, men of wisdom, saints and nobles. The author of the book says that Sultan Muizuddin Sam, one of the Ghaurid Sultans, dedicated two villages in favour of Jam'a Masjid of Multan and handed its administration to the Sahik-al-Islam. After the establishment of Delhi Sultanate in 1206 CE many more *waqf*s were created. A description of Ibn Battuta (an Islamic explorer) offers evidence regarding the mode of administration of *waqf* by Mutawallis during the Sultanate period (Ibn Qadi 1989).

8.7.2 *Key Aspects of* Waqf

There are three key aspects of *waqf* as described by early Islamic jurists (Al-Baghawi 1983; Ibn Qadi 1989; Burhan al-Deen 1981). They are as follows:

(a) Irrevocability of *waqf*: There is a consensus among Muslim jurists that a founder (*waqif*) of *waqf* cannot revoke the dedication of a property as *waqf*. This means that a *waqf* is irrevocable once a *waqif* declares his or her property as *waqf*, and their heirs cannot change its status. So, the *waqf* property will continue to benefit the beneficiaries and at the same time the *waqif* will continue to get rewards from God even after his/her death. However, Imam Abu Hanifa is of the opinion that the *waqif* of the *waqf* has the right to return the *waqf* property to their ownership and can also sell it (i.e. the *waqf* property is revocable by its *waqif*, (the one who created the *waqf*).
(b) Perpetuity of *waqf*: The majority of Islamic jurists believe a *waqf* must be perpetual once it is created. This is to ensure that no confiscation of *waqf* property will take place either by a government or by individuals and those regular and communal places such as mosques, hospitals, orphanages, schools, etc., of the Muslim society will remain as *waqf* forever.
(c) Inalienability of *waqf*: The property of *waqf* is transferred from the *waqif* to God, although the usufruct derived from it can benefit its described benefiters. The majority of Islamic jurists agree that no one can ever become the owner to alienate it and that *waqf* property is, thus, in nature, like a 'frozen asset'. It cannot be the subject of any sale, disposition, mortgage, gift, inheritance, or any alienation whatsoever. It can be said that these three conditions will ensure the continual benefit of the *waqf* property for the present and future generations and keep generating God's rewards to its founder until the Day of Judgment.

8.7.3 Types of Waqf

There are various types of *waqf* that are identified in Islamic literature (Al-Baghawi 1983; Ibn Qadi 1989; Burhan al-Deen 1981). Those are listed below with a brief explanation.

(a) *Waqf 'ala al-nafs* (self-dedicated *waqf*): In the case of self-dedicated *waqf*, the *waqif* retains the income or usufruct of the *waqf* property during their lifetime, and indicates the charitable purpose of it, which shall be entitled to the income or benefit of the *waqf* after their death.
(b) *Ahli waqf* (family *waqf*): A family *waqf* is one in which the income or benefit of the *waqf* property is reserved for specifically described persons, usually family members, children, grandchildren or relatives. The income or benefit of such *waqf* goes to a charitable purpose when none of these beneficiaries for whom the *waqf* was created is alive.
(c) *Waqf al-khair* (charitable *waqf*): A *waqf* is said to be charitable when its income or benefit is dedicated to a charitable cause. It is an endowment made by the *waqif* to support the common good and welfare of the poor and the needy in society. Usually, the *waqif* creates such *waqf* in the form of buildings such as schools, hospitals, orphanages, guest-houses or by providing basic benefits, such as dedicating books for learning, donating lands for use as cemeteries, dug-wells, etc.

(d) *Al-waqf al-Mushtarak* (joint *waqf*): A joint *waqf* refers to a *waqf* in which the property is donated to family as well as charitable purposes, and the income or benefit of the *waqf* asset is shared accordingly. It is a *waqf* created by a *waqif* to support both a public charitable cause and certain individuals or families. Thus, the *waqif* may dedicate part of their asset to their family and another part to the public charitable purpose.

8.7.4 Shariah Requirements of Waqf

Waqf assets can be a real estate along with permanent furniture and fittings or any other assets. It can be movable assets, whether such movable assets are part of a real estate or independent asset. It can be money, and the income generated from utilisation of that money is to be spent on beneficiaries of the *waqf*, while retaining the principal amount. The *waqf* can be also Shariah compliant shares or sukuk and or the income earned by such investment. In an event of liquidation, the Shariah rulings on *Istibdal* (exchange of *waqf* property) should be applied. The *waqf* property should be Shariah compliant and known, and the *waqif* should be the sole owner of the property in which nobody else should have a right of disposition at the time of establishing the *waqf*. If the *waqif* himself has the option of disposing of the property, then the *waqf* shall become valid, and the option will be spontaneously cancelled (Marifa 2014; Abu Zahra 1977).

The *waqf* has a legal personality and financial liability which makes it capable of giving and accepting commitment. However, the legal personality of the *waqf* is quite separate from the personality of its manager. *Waqf* can be a common property, whether such property is divisible or not. The whole common property in this case (not shares or sukuk investment), can be leased out for rental income. The share of the *waqf* in the common property can also be leased out for rent. When the *waqf* manager or the *waqf* partner asks for the division of an undividable *waqf*, the non-cooperative party should be forced to accept to sell. The income obtained from selling the *waqf* in this manner should be used for purchasing a *waqf* property of the same kind. If such a request for dividing the *waqf* is made in case of a dividable *waqf*, the non-cooperative party should be forced to accept the division (Marifa 2014; Al-Baghawi 1983).

Waqf can be a floor in a building or a multi-occupancy property. It can also enjoy easement rights (*haq al-irtifaq*) in a building that has not yet been constructed. *Waqf* can enjoy the right of transcendence when the upper floor is declared as *waqf*, while the owner of the lower floor is unable to perform construction. The lower floor in such case can be built at the cost of the *waqf* and the cost reimbursed to the *waqf* from the income generated through its leasing.

The *waqif* has the right to make their *waqf* subject to all conditions, which do not contradict with Shariah, and their conditions shall be as enforceable as Shariah conditions. The conditions of every *waqif* must be understood with due consideration to the prevailing norms in their environment. The designated manager could be

an individual, a group of people, or an institution. Regarding the form of the *waqf*, the *waqif* can make a condition that their debts should be settled from the *waqf* income after their death, or they may stipulate that the income of their *waqf* should go to them first as long as they are alive, then to their family, and finally to charitable purposes. Another condition of the *waqif* could be that the *waqf* income has to be spent first on any member of their family who becomes poor, and then on charitable purposes (Burhan al-Deen 1981).

A condition stipulated by the *waqif* is invalid when it comprises a Shariah requirement, or when it violates the Shariah rulings on *waqf* or causes harm to the *waqf* property. In such events, the condition should be rejected and the *waqf* shall remain valid. A condition stipulated by the *waqif* also becomes invalid when it tends to hinder the interests of the *waqf* or impacts the process of benefiting from it. When the *waqif* stipulates that the *waqf* should benefit from that particular *waqf* property, then the *waqf* can be utilised either through residing or by leasing, and vice versa (Ibn Qadi 1989).

Supervision and management of *waqf* should observe Shariah rulings on *waqf*. The conditions of the *waqif,* which do not contradict with Shariah or hinder the interests of the *waqf* as perceived by the judiciary authority, should be observed. These tasks would include management, maintenance, development of the *waqf* directly or indirectly, leasing of the assets of the *waqf*, Shariah sanctioned instruments of investment, increasing *waqf* money by investing it in a Shariah compliant manner, changing the operational form of the *waqf* assets with the aim of maximising the benefits of the *waqf* to its beneficiaries. Also, defending the rights of the *waqf*, ensuring its sustainability, payment of fees to agents, payment of expenses for documentation of assets and legal rights of the *waqf*, settlement of debts and payment of the entitlements of beneficiaries. Moreover, responsibilities of the *waqf* manager include replacement of the *waqf* either by selling it for cash and purchasing a new asset, or exchanging it with a new asset, safeguarding the *waqf* properties against occupation or seizure by others, preparation of the *waqf* financial accounts, submission of financial statements and reports to the concerned authorities and any other financial and operational aspects (Al-Bajiy et al. 1913; Al-Zarqa 1963).

8.8 Accounting Treatment of Charity-Based Contracts: *Waqf*

In a number of jurisdictions (including the UK) some endowment institutions were required, from 2005, to have financial statements that comply with International Financial Reporting Standards IFRS). There was therefore pressure on the International Accounting Standards Board (IASB) to subsequently issue applicable guidance. However, resolving the many issues was taking a long time, since there was no consensus over the measurement of assets and liabilities. The accounting approach

to *waqf* is to some extent similar to takaful, in which a company acts as a management agent of the *waqf* assets.

Financial disclosure should be made regarding the *waqf* and basis applied by the management company in financial reporting and disclosure of the following:

(a) Operational expenditure,
(b) Cost of the *waqf* assets in operation,
(c) Management fee,
(d) Running costs,
(e) Adjustment of any *waqf* income,
(f) Any *waqf* reserve,
(g) Investment of the *waqf* assets,
(h) Calculation of *waqf* income,
(i) Allocation of *waqf* benefits to its beneficiaries.

A *waqf* manager shall disclose information that identifies and explains the amounts in its financial statements arising from *waqf* income. To comply with this accounting requirement, a *waqf* manager shall disclose:

(a) its accounting policies for *waqf* management and related assets, liabilities, income and expense;
(b) the recognised assets, liabilities, income and expense (and, if it presents its statement of cash flows using the direct method, cash flows) arising from *waqf* assets;
(c) the process used to determine the assumptions that have the greatest effect on the measurement of the recognised amounts described in (b). When practicable, a *waqf* manager shall also give quantified disclosure of those assumptions. This would include the operating model of *waqf* and its requirements, such the accounting of investment instrument employed to generate the *waqf* income, e.g. rental income;
(d) the effect of changes in assumptions used to measure the *waqf* assets and any liabilities due, showing separately the effect of each change that has a material effect on the financial statements;
(e) reconciliations of changes in the *waqf* liabilities and, if any, related deferred acquisition costs or other debt repayment.

IFRS 4 seemed to provide the closest analogy to examine the accounting treatment of *waqf*.

The *waqf* manager will recognise expenses or *waqf* benefits to be paid in the statement of financial position as a liability, measured at the present value of future net cash flows.

At each reporting date the *waqf* manager needs to assess whether its recognised *waqf* liabilities are adequate (the 'liability adequacy test'), using current estimates of future cash flows under its *waqf* assets.

Where the result of this test would be a loss, the loss should be recognised immediately. Where the result of this test would be a gain, the gain is recognised systematically over the lifetime of the *waqf* assets, by creating a residual margin,

including the effects of the time value of money, this is, however, not to be the case in any debt due.

Disclosure by *waqf* manager should be made based on the party that meets the general and administrative expenses, and whether this party meets all or only part of these expenses. In normal *waqf* operating structures this party is the *waqf* that is managed by the *waqf* manager. In some cases, the *waqf* manager may bear, as part of its management agreement, part of these expenses; this would be clear in the terms of the agreement. If the *waqf* manager meets part of these expenses, disclosure should be made of the basis applied in determining this part and the governing body that approved it.

8.9 Conclusion

This chapter discussed the charity-based contracts, which are also known as gratuitous non-commutative contracts in Islamic finance, namely *takaful* and *waqf* of the Islamic finance principles, their operating structure, Shariah requirements and accounting treatment. It was clear that observing Shariah requirements for those two charitable principles is important to establish their accounting treatment. While, as we have seen in this chapter, IFRS and IAS 4 would broadly work to determine the accounting treatment of the *takaful* insurance products, there are some aspects that are unique to *takaful* and should be considered accordingly in its accounting treatment and disclosure requirements.

Similarly, with the *waqf* Islamic principle as a trust, an analogy was drawn to the accounting treatment of *takaful* in order to set out its own accounting treatment. This is because financial reporting responsibilities fall on a company that manages the assets in both of them. This company is the *takaful* operator in a *takaful* insurance, and we discussed the various operating structures for it, and in the case of *waqf* it is the *waqf* management company. In the former, the TO manages the *takaful* fund and its operational requirements, including *takaful* participants contributions. While in the latter, the *waqf* management company is entrusted with the running and management of the *waqf* assets for the benefit of the *waqf* and its beneficiaries.

As I argued in this chapter, the existing IFRS and IAS do not readily and fully fit to address all features of the Islamic finance products, and particularly takaful and waqf. Thus, the substance of the transactions itself is what should be considered while factoring specific Shariah requirements for each financial instrument. The accounting treatment is, therefore, based on the substance of the contract itself and its economic outcome. Even though; it may differ in some specific details from the accounting standards and insurance contracts, as practiced in the conventional market. The Conceptual Framework for Financial Reporting gives guidance on preparing financial statements and on the objective of financial reporting and the principles to be used in recognising and measuring the elements of financial statements. The principles in the Conceptual Framework inform the content of individual

standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

The Conceptual Framework first identifies the objective of general purpose financial reporting. Then, the Conceptual Framework sets out the qualities of useful financial information, and identifies that, to be useful, financial information must (i) be relevant to users and (ii) must faithfully represent the underlying economic substance of the situation.

A *waqf* manager or a TO (or SLC in the case of TASF) would be required to disclose information that identifies and explains the amounts in its financial statements arising from *waqf* income or participants contributions to the *takaful* fund. The process used to determine the assumptions that have the greatest effect on the measurement of the recognised amounts in both *waqf* and *takaful*. When practicable, a TO or a *waqf* manager should also give quantified disclosure of those assumptions. This would include the operating *takaful* model requirements or nature of the *waqf* assets, such as the accounting of *mudaraba* investment in a general *takaful* or life *takaful* and any reserve accounts, or the accounting of rental income and other investments of the *waqf* assets.

In the next chapter we will get slightly technical, however, for your convenience I will be ensuring that I illustrate any technical analysis as possible with appropriate and relevant examples. Just to give you a flavour, in the next chapter I provide a technical analysis of the IFRS 9, its scope and application to Islamic financial instruments on offer in the Islamic finance industry.

Chapter 9
Technical Analysis of the International Financial Reporting Standard 9

9.1 Introduction

I have discussed in previous chapters (Chaps. 5, 6, 7 and 8) various Islamic financial principles and their accounting and reporting treatments. I have divided those principles into four categories equity-based instruments, sale-based instruments, debt-based instruments and charity-based instruments. This chapter aims to examine the International Financial Reporting Standard 9 (IFRS 9) from a technical perspective in light of the most common and widely used financing instruments that are equity-based and sale-based in the Islamic finance industry. As part of this technical analysis of IFRS 9, I identify some contractual clauses that are embedded in equity-based and sale-based financial products, such as the home finance products as well as inter-banking treasury products and analyse whether cash flows are compliant with the Solely Payments of Principle and Interest (SPPI) tests according to IFRS 9. However, as this analysis is tailored to Islamic financial instruments, I will be using here an alternative accounting terminology that I coined, Solely Payments of Principal and Profit (SPPP) instead of the actual terminology used by IFRS 9 SPPI.

The objective of IFRS 9 is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The application of IFRS 9, however, would require a further analysis in relation to Islamic financial institutions (IFIs) and their financial reporting requirements. It should not be applied as is in its conventional form by IFIs without appropriate assessment and tailoring for their operational model and Shariah requirements.

In applying IFRS 9 standard, the focus of the analysis is on the economic substance. While e.g. home finance products and similar instruments offered by IFIs are legally structured as financial co-ownership or financial leases for the purpose of Shariah compliance, they are economically similar to conventional mortgage loans in its economic outcome. Consequently, they are financial instruments and may be

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_9

recognised as a loan and receivable under IAS 39. Therefore, IFRS 9 is the relevant accounting treatment, which will apply to such products when enacted by IFIs. There is, however, a caveat to this statement as the structure and risk profile of the home finance is different to conventional loans and this should be factored in the financial reporting of IFIs. The following sections provide more in-depth technical analysis to illustrate this conclusion. I also discuss other Islamic finance instruments namely commodity murabaha (sale-based contracts) and wakala investment agency as inter-banking liquidity instruments. Any other Islamic financial instruments would fall under the rules and technical analysis of IFRS 9 that I provided here. This is because such instruments would fit with IFRS 9 standard and the SPPP test criteria without any major concerns if you follow the rationale and steps I explain in this chapter.

9.2 IFRS 9 Analysis of Diminishing Musharaka with Ijara and Similar Instruments

Typically, equity-based home finance instrument is structured on a diminishing *Musharaka* with *Ijara* (DMI) or just an *ijara* structure or other variations of the two models. I will focus on DMI here for the purpose of this analysis as such analysis would apply to all other variations and models that are equity-based home financing instruments, which would require a particular technical analysis for the purposes of IFRS 9. In this structure of home financing, both the customer and the IFI contribute towards the purchase or refinance of the customer's chosen property as partners. The IFI agrees to sell its share of the property to the customer over a period of time, known as the finance term. At the same time the IFI also leases its share of the property to the customer, for which the customer pays a monthly rent.

Therefore, the customer's monthly payment consists of two elements:

- an acquisition payment, which is the payment made by the customer to acquire the IFI's share in the property; and
- a rental payment which is the charge for renting the IFI's share in the property.

The agreement between the customer and the IFI relating to the customer's ownership of the property and their right to acquire the IFI's interest in the property is referred to as a Diminishing *Musharaka* Agreement (DMA) and also known as a Diminishing Co-ownership Agreement (DCA). Under the DMA, each payment made by the customer to the IFI purchases a proportion of the IFI's share in the property. As such; IFI's share in the property decreases while the customer's share increases. As the customer's share in the property increases, so the rent paid for the use of the IFI's share will decrease correspondingly. When purchasing a property, the customer typically enters into four agreements with the IFI (those agreements may differ slightly for some IFIs), those are:

- Diminishing Co-ownership Agreement
- Lease Agreement

- Service Agency Agreement
- Legal Charge Agreement

Diminishing Co-ownership terms and conditions define the legal form of the arrangement in respect of the sale and purchase of the asset. It stipulates that the customer agrees to buy the IFI's initial share of the property for an amount referred to as the "acquisition cost". This initial share of the customer corresponds to the initial contribution of a customer in a conventional loan. Subsequently, the customer agrees to make acquisition payments to purchase the IFI's share in the property. Each acquisition payment made by the customer shall result in decreasing the IFI's share in the Property.

The legal sale and transfer of the legal title of the property to the customer shall be completed on the final completion date that occurs when all acquisition payments, as well as any other outstanding sums under the deed and related home finance agreements, have been paid by the customer. This part of the transaction corresponds to the Diminishing *Musharaka* Agreement. Also, on the date of entering into this agreement, the IFI executes a lease agreement with the customer, under which the IFI commits to lease its share of the property exclusively to the customer for the lease term. The rent accruing during each rent period is payable in monthly instalments by the customer to IFI.

Home finance products offered by most IFIs appear to be in general very similar to leases. IFIs buy the asset and then leases it to its customers in relation to the share not yet acquired by the customer. This arrangement enables IFIs to recover its costs and earn a profit from this financing arrangement with the customer, who is in turn able to acquire full ownership of the asset at the end of the finance term. Such a contract could be considered as a lease according to IAS 17, with the IFI as the lessor and the customer as the lessee.

> **IAS 17.4 (definitions)** A lease is an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time.

However, in applying IFRS Standards, the focus of the analysis is on the economic substance. Indeed, as highlighted by the IASB (2016), the analysis performed to determine whether an instrument is Shariah compliant can be helpful in understanding the underlying economic substance of a transaction.[1] In the case of *Musharaka Mutanaqisah* (DMI) home financing, we may consider this as a hybrid structure of home financing consisting of three contracts: *musharaka* (partnership), *ijara* (leasing) and *bay'* (sale). The economic substance corresponds contractually to a sale that is structured to compensate the IFI for a deferred payment profile. By adopting this approach from an IFRS 9 perspective, it would be equivalent to payments of principal and/or interest for a conventional mortgage commercialised by non-Islamic financial institutions. The three contracts *musharaka* (partnership),

[1] Issues in the application of IFRS 9 to Islamic Finance A paper prepared by the IASB Staff, Outreach on Shariah-Compliant Instruments and Transactions, IASB, February 2016, p. 2.

ijara (leasing) and *bay'* (sale, which is not always a separate contract) should be considered as one framework agreement for home finance equivalent to a mortgage loan from IFRS 9 perspective.

According to the legal terms of this financing arrangement, the transfer of the ownership, while legally completed at the final completion date ("*Actual legal completion if the sale of all our (IFIs) interest in the Property evidenced by us transferring our title to the property to you (the customer)*", is only effective at the end of the contract when the legal title is transferred to the customer. All associated risks and rewards with regards to the ownership are transferred to the customer accordingly, as the sole owner of the property.

In addition, the customer is able to sell the property to a third-party at any time. The IFI might only claim ownership rights in the event that the customer defaults on the lease payments, i.e. all sums due under the initial deed DM, rent agreement, service agency agreement and legal charge should be paid in full. According to the agreement legal terms, in the event the customer defaults and the IFI sells the property, any proceeds from the sale that exceed outstanding amounts (acquisition payments, rents, legal and administrative expenses. . .) due to the IFI should be paid back to the customer. In any event, the IFI has no beneficial interest in any increase in the value of the property. The IFI agrees to sell the property to the customer at an agreed price at the beginning of the term of the finance, which is not acceptable by some Islamic scholars.

Consequently, any increase or decrease in the value of the property over the term will only impact the customer. This is justified by IFIs from a Shariah compliance point of view on the basis of partnership in an ownership agreement (*sharikat al milk*) and the Shariah ruling 'gains are according to risk assumed' (see Chap. 5 for more details about the different types of partnership in Islamic jurisprudence). I would assume the issue of par value for selling the IFI's share, could be resolved by agreeing in the legal terms on a sale price according to the acquisition payments that are reviewed in specific intervals. Such payments are sent to the customer quarterly or semi-annually with the rent review statement, in practical terms this would constitute a sale offer from the IFI to the customer. By making the required acquisition payments and rent on a monthly basis according to this payment statement, the customer is accepting the sale price and agreeing to pay the required amounts, unless the customer communicates to the IFI otherwise. This solution should resolve the Shariah compliance controversy around this matter and pre-determined sale price of the IFI's share in the property at the outset of the home finance agreement.

It is my view that the customer, under such arrangements, controls the asset from the origination of the contract more than having just a right to use the asset. This is also clear via the service agency agreement where the IFI appoints the customer as its service agent in the IFI's share of the property and gives the customer control from that perspective.

According to Sori (2016),[2] it is normal practice for Malaysian Islamic banks not to recognize the leased asset in their book and the customer would normally recognize the value of the asset in their book (if they are a business entity) due to consideration of the 'substance over form' principle. This is further evidenced by registration of ownership under the customer's title as a beneficial owner with the land office and relevant authorities. Thus, Malaysian Islamic banks will only claim ownership rights in the event that the customer defaults on the lease payment.

On the other hand, Malaysian Islamic banks would recognize the whole transaction as financial assets and record them in accordance with MFRS 132, MFRS 139 and MFRS 9. The fair value of *Musharaka Mutanaqisah* (MM) financing will be disclosed under the classification called 'Loans and Receivables' (commonly known as 'Financing, Advances and Others') under Islamic Finance.

Our analysis reveals that all sixteen Malaysian Islamic banks complied with MFRS 132, MFRS 139 and MFRS 9, and disclosed their MM financing under the classification of 'Loans and Receivables'. The implication of this practice is that the asset is not subjected to a depreciation and impairment test. Furthermore, it is evident that periodical fair value assessment and distribution of variation of the asset's value (either upward or downward) were not conducted in practice. On the other hand, it was observed that the Malaysian Islamic banks have periodically assessed the impairment status of the 'Loan and Receivables', where uncollectible financing would be written off from the account.

We performed a review of the December 2016 and 2017 financial statements of a sample of Islamic banks to ascertain the reporting approach regarding equity-based financing, in particular *Musharaka* (including *Musharaka* Mutanaqisah/diminishing home financing). The findings of this review showed that such home financing is classified under the line "Loans and Receivables" (IAS 39 classification), commonly known as "Financing, Advances and Others" under Islamic finance. However, the correct terminology to report this category in the financial statement of an IFI is 'Financing Assets and Others' or 'Financing and Other Assets'. This is because financial reporting terminologies, such as 'loans' and 'advances' while it is correct for conventional financial institutions, such terminologies do not reflect the correct position, legal and financial treatment of Islamic banking products for such instruments. In the case of equity-based financial products for home finance and other similar products, the IFI is not lending or advancing a loan, it is providing finance to acquire equity share in the asset. Thus, its financial position in that financial transaction is different to a provider of conventional mortgage loans, if IFIs are fully following the applicable Shariah guidance for those contracts. This does not contradict the economic substance approach that I analysed earlier.

As certain aspects of the home finance agreement are contractually arranged as a lease or to include a lease as part of the framework agreement, there is an argument for its classification and measurement purposes to be treated as a lease. The scope of

[2]Sori, Zulkarnain Muhamad. (2016). Accounting for Musharakah Mutanaqisah Home Financing: The Malaysia Case, SSRN Papers.

IFRS 9 stipulates that rights and obligations under leases to which IAS 17 applies should not be subject to the classification and measurement requirements. Whilst I am of the view that there are some merits in this argument, it is my view that the economic and commercial substance is that of a financial instrument and should be classified and measured under the scope of IFRS 9. Notwithstanding the classification and measurement consideration, the impairment considerations under IFRS 9 would apply subject to incorporating Shariah requirements and implications to such financial transactions and their reporting as was discussed earlier.

9.3 Analysis of the Solely Payments of Principal and Profit (SPPP) Under IFRS 9

In this section of this chapter I aim to identify contractual provisos that are embedded in the home finance products and similar equity-based instruments offered by IFIs. I analyse whether cash flows are compliant with the Solely Payments of Principal and Profit ("SPPP"), a term I coined for IFIs instead of the SPPI (Solely Payments of Principal and Interest) as explained in the Introduction section of this chapter, tests according to IFRS 9.

IFRS 9 requires an analysis of the contractual characteristics of the terms and conditions of home finance products, and similar equity-based instruments offered by IFIs to its clients that impact the return on financed assets. The key contractual characteristics that I have identified and are common in all legal agreements of equity-based financial instruments are:

- Consideration for time value of money.
- Consideration for counterparty credit risk.
- Consideration for other basic financing risks (such as Liquidity costs).
- Consideration for operational cost (such as administrative expenses).
- Consideration for Profit margin.

9.3.1 Rental/Profit Rate Analysis

The rental rate charged by IFIs in relation to home financing is generally based on two elements a benchmark and a margin, which is defined as follows *'The percentage found by adding the Base Rate to the Margin less any applicable Discount or, if the relevant rent period falls within a fixed rental rate period, the applicable fixed rental rate'*. (An Islamic bank's legal terms of home finance).

Therefore, home finance rental rates comprise:

(a) **Variable rental rate**

- **Base rate:** Is the base rate set from time to time by the Bank of England (BoE) for deposits in Sterling on a monthly basis or, if the Bank of England ceases to

set such rates, such alternative rate is the benchmark used for rental rate. Some IFIs may use LIBOR instead as a benchmark.

- **Margin:** Is the percentage rate set out in the legal agreement of home finance products, such margin should be capped from a Shariah perspective to eliminate any uncertainty in the pricing formula.
- **Discount:** Is a percentage shown in the home finance legal agreement that is deducted from the applicable margin in calculating the rental payment at rent review dates prior to the discount end date. After the discount end date, the rental rate is recomputed to the base rate plus the applicable margin or revert rental rate. This discount is linked to the profit margin and should be seen as a commercial gesture.

(b) **Fixed rental rate**

Some IFIs also offer products with a fixed rental rate. This means that the monthly payment is guaranteed to stay the same for the period of the fixed rental rate, regardless of how the variable rental rate or benchmark may change.

The fixed rental rates are not based on benchmark plus margin as this is the case for variable rental rates. It is simply a rental rate which an IFI determines according to financial economics. However, there is some correlation between fixed and variable rental rates, such that the fixed rental rates are circa e.g. 0.30% over the discounted base rental rate for the variable rental rate at the issuance of the finance offer. This would correspond to a normal mortgage lending return and would not conflict with the SPPI test and in the case of IFIs SPPP test. The fixed rental rate is usually for a period of 2–5 years, and then switches to the variable rental rate available at the time of maturity. The IFI would write to its customers in advance of the expiry of their fixed or discounted rental rate to offer them alternative fixed or discounted rental rates options available for them.

9.3.2 IFRS 9 Analysis of the Rental/Profit Rate

The home finance products include three components: benchmark, margin and discounted margin. According to the legal terms of all reviewed IFIs' home finance products, IFIs conduct regular rent reviews in certain intervals. Through this review IFIs calculate:

- how much the customer has paid including any additional acquisition payments,
- the outstanding finance left to pay over the remaining term,
- applying any changes in the benchmark,
- using this information to calculate the customer monthly payment amounts for the next rental period.

When performing the SPPP test, there is a requirement to analyse several aspects to demonstrate the "time value" component, such as:

- Characteristics of the reference index? How is it computed?

- Consistency of the index within the market? Does it correspond to a typical reference index?
- Consideration of whether there are any other specific contractual clauses which may affect the contractual cash flows.

The relevant paragraph of IFRS 9 B1.4.9A indicates that time value of money is the element of return that provides consideration for only the passage of time. In addition, as per IFRS 9 paragraph BC4.178, the IASB also noted that '*as a general proposition, the market in which the transaction occurs is relevant to the assessment of the time value of money element. It refers notably to the LIBOR for the European market and the Prime Rate for the US market. However, the IASB noted that a particular interest rate does not necessarily reflect consideration for only the time value of money merely because that rate is considered 'normal' in a particular market.*'

Furthermore, it is also indicated that the IASB believes that an entity must apply judgement to conclude whether the stated time value of money element meets the objective of providing consideration for only the passage of time. The example within instrument B of IFRS 9 B4.1.13 refers to the various published rates that could be SPPI, conventionally speaking, or SPPP in relation to IFIs. The analysis shows that many IFIs do not use their judgment as guided by the IASB and apply the IFRS 9 in its conventional form without proper regards to how it fits with their products profile, financial reporting or Shariah requirements.

IFIs established in the UK offer Sterling denominated products only, and mostly adopt the Bank of England base rate as a pricing index for home finance rental rates. LIBOR, in contrast, is a published rate widely used by banks to refinance themselves. The main characteristics of the LIBOR as a benchmark reference rate are as follows:

- For a given currency (USD, GBP, JPY, CHF. . .), and for a given maturity, the index is computed every day at 11 am (UK time) and published by the ICE benchmark administration and reflect the average rate of the funding rate for a sample of 16 international banks established in London to other large banks.
- The sample of banks is known in advance and is stabled over time. The four outliers' rates are excluded from the average rate computation to avoid the impact of liquidity event or errors that would relate to the banks used for the sample.
- Maturity published is for 1 week, 2 weeks, 3 weeks, 1 month, 2 months, 3 months etc. until 12 months.
- The rate is also correlated to the refinancing rate fixed by the BoE as shown in Fig. 9.1.

The BoE Base Rate correlates with the LIBOR rates that are widely used by banks for inter-banking transactions, and this Base Rate is applied to most home finance products with an explicit maturity. Consequently, it is fair to conclude that using BoE Base Rate as a reference rate for pricing home finance products offered by IFIs would meet the SPPP test.

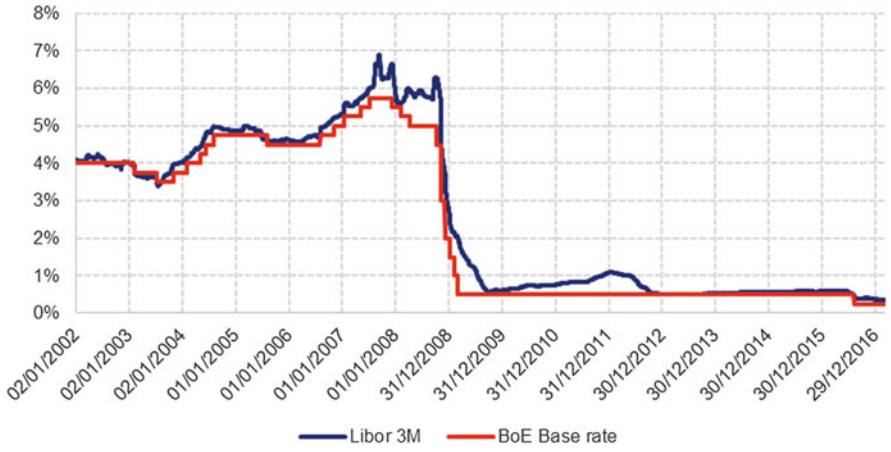


Fig. 9.1 Correlation between LIBOR and BoE base rate

The other element of the rental rate alongside the benchmark is the margin, including any margin discount. The discount is a percentage shown in the home finance agreement with the customer, which is deducted from the margin in calculating the rental rate applied prior to the discount end date. According to IFRS 9 B4.1.7A, *interest can include a profit margin that is consistent with a basic lending arrangement*.

The margin is usually subject to increase; however, any such increase is subject to a ceiling, which is a Shariah requirement to eliminate uncertainty in the pricing. The margin cap is setup at 1–4% depending on what the IFI opts for as a margin cap. Margin-variation legal clauses that can be exercised entirely at the discretion of the IFI would ordinarily result in the product failing the SPPP criteria, as it does not fall within one of the components of the IFIs return according to IFRS 9 4.1.3. In practice none of the IFIs with such margin cap clauses has exercised increasing the margin within the cap limit, therefore, for the purpose of the SPPP classification this legal clause could be considered as dormant and is there as a Shariah requirement. An IFI would not usually trigger such clause to increase its profit margin with the stated margin cap due to the practical complexity, also possible departure of many of its home finance clients who are not happy with this increase. Thus, by adopting this argument the home finance products would meet the SPPP criteria.

Therefore, as long as the likelihood of triggering the margin cap provisions is very low, I would consider the margin cap clause to be *de minimis* and would not fail the SPPP test.

IFRS 9 B4.1.18 A contractual cash flow characteristic does not affect the classification of the financial asset if it could have only a de minimis effect on the contractual cash flows of the financial asset. To make this determination, an entity must consider the possible effect of

the contractual cash flow characteristic in each reporting period and cumulatively over the life of the financial instrument. In addition, if a contractual cash flow characteristic could have an effect on the contractual cash flows that is more than de minimis (either in a single reporting period or cumulatively), but that cash flow characteristic is not genuine, it does not affect the classification of a financial asset. A cash flow characteristic is not genuine if it affects the instrument's contractual cash flows only on the occurrence of an event that is extremely rare, highly abnormal and very unlikely to occur.

9.3.3 IFRS 9 Analysis of Delay Payment

According to most contractual terms of IFIs' home finance products, the customer may pay delay payment charge on both the Diminishing Co-ownership Agreement (cost and expenses) and the Lease Agreement (rent and other payments). If the customer fails to pay the IFI any sum (including monthly agreed acquisition payments or final acquisition costs payable) on its due date for payment, or in the case of a sum payable on demand, on the due date of demand, the customer agrees to pay to the IFI a delay payment in the relevant amount determined as follows:

$$\frac{A \times B \times C}{360}$$

Where

"*A*" means the amount of such unpaid amount.
"*B*" means the percentage published and issued by the IFI from time to time.
"*C*" means the number of days from and including such date on which the unpaid amount was due and payable to and including the date of actual payment.

Unlike conventional financial institutions, IFIs are not allowed to profit or benefit from late payment charges as this would be interest charges over unpaid payments (which would be treated as a debt when due but unpaid). Shariah guidance allows IFIs to take delay payment charges as a deterrent measure, so customers do not willingly default on payments. However, this fee should only reflect actual costs and expenses incurred by the IFI and should not include any lost opportunity cost or cost of funding, any surplus would be donated by the IFI to charitable institutions on behalf of the customer. All legal terms of home finance products indicate that those actual costs and expenses are incurred by the IFI if it has to sell the property by itself. Those costs cover anything from land registry fees (cost to transfer the property to a new owner), cost of appointing a solicitor to act, reasonable staff costs that could be incurred, estate agents' fee's and any fee that might be incurred in a forced property sale. Consequently, those costs would not be either a fixed or a percentage fee, but it would be the actual costs only. There are also other fees, such as unpaid direct debt and arrears management charges.

For the purposes of IFRS 9 analysis, I would only consider the late payment defined above in relation to (A × B × C)/360 that are linked to the unpaid rent. We

Table 9.1 SPPP delay payment analysis

Contractual feature	Does capital generate rental payments?	Are rental payments capitalised?	Is the absence of capitalisation justified by the regulation?	Conclusion (SPPP contractual feature)
Delay payment	Yes	No	Unpaid acquisition and rent payments continue to generate delay payment charges. It takes a flat line on unpaid amount without capitalising such payments because of the Sharia structure. This would need to be reconsidered in any IFRS 9 analysis	Yes

will also have a closer look at other costs and charges as described above stipulated in the home finance legal agreements and lists of charges that cover administrative and legal costs incurred by IFIs. This refers to a compensation for administrative expenses and would not have any impact on the SPPP test according to IFRS 9 4.1.3. Also, in principle, as long as late payments continue to generate interest, conventionally speaking, at the contractual rate while those sums are still due, then it would not bear any impact on IFRS 9 SPPI criterion. Table 9.1 provides a summary of the analysis of the cash flow related to a late payment event.

Shariah rules forbid the earning or payment of interest. However, once a payment is overdue, an IFI could start to apply a delay payment charge on the due but unpaid rent. This is typically done by applying a delay payment percentage that is at least equal to the published variable rental rate for that home finance product, potentially, using the margin cap option.

Consequently, the existing outstanding finance amount, which represents the IFI's equity share in the asset, would continue to generate rent at the delay payment rate. However, such rental payments when due and not paid it becomes a debt and charges will not be capitalised as practiced in the conventional banking market; it would be applied as a flat line. In that scenario, the amount is likely to be insignificant and would have a *de minimis* effect if the IFI does not have significant delay payments or defaults in its assets book.

An analysis has been performed considering the longest delay payment period noted in the case of a UK based IFI shows that such period was for 4 months. An analysis was also conducted between the cash flows collected on a performing home finance asset with no delay payments and the cash flows collected on a non-performing home finance asset with 4 months delay payments in one reporting period and cumulatively over the life of the analysed home finance transactions. The impact in one reporting period and over the life of the home finance payment amounted to 0.0068% and 0.1072% respectively, which is insignificant.

It should be noted that IFIs have the right to terminate the home finance agreement with the customer by selling the property in the case of default that is continuing and has not been remedied. The proceeds of such sale would be paid

back to the customer after deducting all unpaid amounts and costs to the IFI because of the default (acquisition payment, rents, legal, administrative expenses. . .).

Therefore, delay payment would continue to be accrued on the outstanding rent at the published applicable variable rental rate by the IFI, which would be SPPP test compliant. This would be the case when the IFI has both insignificant historic and current late payments, this provision will have *de minimis* impact. Whilst it is not expected that the impact of late payments and variation in margin on the return would be other than *de-minimis*, it would be expected that this assertion is tested annually by the IFI. If, however, the impact of delay payment is significant, the IFI should demonstrate how it can minimise such impact in order not to fail the IFRS 9 SPPP criteria.

9.3.4 IFRS 9 Analysis of Additional Acquisition Payment

A home finance customer has the right to pay additional payments over and above the regular monthly acquisition payments, known as Additional Acquisition Payments ("AAP"). The AAP can be used to either reduce the finance term or reduce the monthly payments. The AAP is similar to an early repayment or overpayment in the case of a conventional mortgage loan. The AAP can be made at each rent review for a small administration fee. No AAPs are permitted for a fixed rental rate home finance product during the fixed rental rate period. In general, when an IFI offer a fixed rental period, it is fixed for a term of either 2, 3 or 5 years and after the fixed rental rate has matured, the home finance rental rate will revert to the IFI's standard variable rental rate, which permits AAP at each rent review date. It is also possible to switch from a fixed rental rate to a new fixed rental rate. The customer could make an AAP alongside a product switch if they are switching from a maturing fixed rental rate to a new fixed rental rate, but once they are on a new fixed rental rate, they cannot make an AAP whilst the term of the new fixed rental rate applies.

According to IFRS 9 B4.1.11(b), a contractual term that permits the customer to prepay a debt instrument before maturity with **a prepayment amount that substantially represents unpaid amounts of principal and interest on the principal amount outstanding as well as a reasonable additional compensation fee would not conflict with the SPPI criterion**.

> IFRS 9 B4.1.11 The following are examples of contractual terms that result in contractual cash flows that are solely payments of principal and interest on the principal amount outstanding*:*
>
> (a) . . .
>
> (b) a contractual term that permits the issuer (i.e. the debtor) to prepay a debt instrument or permits the holder (i.e. the creditor) to put a debt instrument back to the issuer before maturity and the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for the early termination of the contract.

Therefore, for an instrument issued at par, the following contractual terms do not conflict with the SPPP criterion:

- Payment at par + accrued rent,
- Payment at par + accrued rent + reasonable AAPs fee.

IFRS 9 accounting standard does not include any examples or guidelines to indicate what is considered "reasonable" in terms of an administrative fee. Questions are currently pending at the IFRS Interpretation committee regarding the absence of floor in a prepayment compensation or prepayment based on the fair value of a debt. While IFIs are not allowed to seek a compensation for AAP or prepayment penalising the customer, due to the nature of its home finance agreement, they are allowed to charge an administrative fee reflecting administrative costs for processing AAP and to stipulate a flooring or minimum payment amount for AAP. Such administrative fee should not take into account a compensation for lost opportunity in relation to the overpayment or prepayment of AAPs, as this would be considered interest charges and does not fit with the underlying structure of the home finance product. Thus, as this fee refers to compensation for administrative expenses it would not conflict with the SPPP test according to IFRS 9 4.1.3.

Therefore, the Additional Acquisition Payment (prepayment) contractual feature does not conflict with the SPPP criterion for home finance products under IFRS 9.

9.4 *Wakala* Investment Agency IFRS 9 Analysis

This section provides technical analysis of the Islamic finance principle of *Wakala* investment agency instrument that is used mainly as a counterparty inter-banking placement for liquidity management. In this section I discuss the relevant IFRS standard under which the Wakala should be recognised by identifying contractual features that are included in the standard master IIFM-ISDA *Wakala* agreement, and analyse whether the cash-flows are compliant with the Solely Payments of Principal and Profit (SPPP) tests according to IFRS 9 as I established earlier in this chapter. Before I start the IFRS 9 analysis, I should provide you with a brief description of how it works, so you can follow my analysis closely.

Step 1: The *Muwakkil* (in this instrument is the investor or the counterparty placing with the other bank) appoints the *Wakil* (the bank receiving the deposited money placed with it for a specified period) to be its agent with respect to the investment of the *Muwakkil*'s funds in only Shariah acceptable transactions. Below is the relevant clause extract from the master legal agreement.

The Muwakkil hereby appoints the Wakil to be the agent of the Muwakkil for the investment of the Muwakkil's funds through and as part of the Wakil's pool of treasury funds. The Wakil is hereby authorized to enter into Islamically acceptable transactions on behalf of the Muwakkil and for the Muwakkil's account and to do all acts as fully as the Muwakkil could do itself with respect to such transactions through purchase agreements, sales agreements or other agreements and to negotiate on behalf of the Muwakkil in relation thereto and to exercise on the Muwakkil's behalf all other related powers necessary to enable it to fulfill its obligations under this Agreement.

Step 2: Prior to entering into a transaction, the *Wakil* will agree an expected rate of profit that the *Muwakkil* expects to achieve on the transaction (*Muwakkil* Profit).

Prior to entering into a transaction on behalf of the Muwakkil, the Wakil will agree a rate of profit that the Muwakkil expects to achieve on the transaction. Any amount that the Wakil earns in excess of the profit rate will be retained by the Wakil as an incentive in addition to the remuneration specified in the Wakil Offer. In case the anticipated rate of profit is not achievable at the start of the Transaction, then the Wakil will need to resort back to the Muwakkil to agree to invest at a lower rate, otherwise the transaction would be terminated as this will constitute a termination event

Step 3: The *Muwakkil* provides the investment amount to the *Wakil* at the agreed investment date.

The Muwakkil shall pay the Investment Amount to such account as the Wakil shall have notified the Muwakkil for value not later than the Investment Date.

Step 4: The *Wakil* invests the amount received from the *Muwakkil* in its pool of treasury funds on the *Muwakkil*'s behalf and unconditionally undertakes to pay the maturity proceeds based on the results of the investment on the maturity date.

Once the Investment Amount has been paid to the Wakil and invested by the Wakil on the Muwakkil's behalf, the Wakil unconditionally and unequivocally undertakes to pay the Maturity Proceeds based on the results of the investment to the Muwakkil on the Maturity Date free from any deductions, set off or withholdings of any kind to such account as the Muwakkil shall have notified the Wakil.

Step 5: At the maturity date the excess profits over and above the agreed profit rate are retained by the *Wakil* as an incentive and the funds is returned to the *Muwakkil* with the agreed payable profit.

Prior to entering into a transaction on behalf of the Muwakkil, the Wakil will agree a rate of profit that the Muwakkil expects to achieve on the transaction. Any amount that the Wakil earns in excess of the profit rate will be retained by the Wakil as an incentive in addition to the remuneration specified in the Wakil Offer. In case the anticipated rate of profit is not achievable at the start of the Transaction, then the Wakil will need to resort back to the Muwakkil to agree to invest at a lower rate, otherwise the transaction would be terminated as this will constitute a termination event

During the transaction, the *wakil* is entitled to add its *wakala* fees according to the appendices of each agreement.

9.4.1 Applicable Accounting Standard to the Wakala

This *wakala* arrangement corresponds to an investment deposit of funds from a *muwakkil* for a specific period with an investment agent. The agent charges a *wakala* management fee for its investing services. The return, *muwakkil* profit, is agreed prior to entering into the transaction between the parties as an expected rate of return. Therefore, the financial instrument created by this transaction falls within the scope of IAS 32.11.

IAS 32B11 A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

A financial asset is any asset that is:

(a) cash;
(b) an equity instrument of another entity;
(c) **a contractual right:**

(i) **to receive cash or another financial asset from another entity;** or
(ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or (. . .)

As *wakala* is a financial instrument it falls under the classification and measurement requirements of IAS 39 and IFRS 9, when enacted by an IFI.

9.4.2 IFRS 9 Analysis of the Wakala *Receivable*

This section aims to list the contractual characteristics of the *wakala* principle as practiced in the Islamic finance market, which impact the return generated from this transaction.

As per IFRS 9 B4.1.7A, to be considered SPPI, *a basic lending arrangement should include consideration for the time value of money and credit risk that are typically the most significant elements of interest. However, in such an arrangement, interest can also include consideration for other basic lending risks (for example,*

liquidity risk) and costs (for example, administrative costs) associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement.

If other components are present (e.g. share price, commodity indexation), the instrument would not satisfy the SPPP criterion.

(a) **Investment amount**

The investment amount corresponds to the principal in a conventional loan. It is the amount paid by the *muwakkil* to the *wakil* that is then returned to the *muwakkil* together with an agreed profit net of any deductions on maturity.

For a conventional loan, the investment amount corresponds to the principal to be repaid and would not conflict with the SPPP requirements under IFRS 9.

(b) ***Muwakkil* profit**

The *muwakkil* profit is determined as a certain per cent per annum and is maintained for each transaction without being guaranteed or fixed. It is computed on the principal amount, e.g. the investment amount, in a similar way to a conventional interbank lending. Thus, in practice the profit is composed of three components:

- **Prevailing market rate:** a benchmark rate is used to compensate for the investment period. A different benchmark rate is used depending of the currency of the *wakala*, e.g. the Euribor for euro, the Libor for GBP, the prime rate for the USD. This is consistent with the application of IFRS 9 (paragraph B1.4.9A) in respect of the passage of time.

  IFRS 9 B4.1.9A Time value of money is the element of interest that provides consideration for only the passage of time. **That is, the time value of money element does not provide consideration for other risks or costs associated with holding the financial asset.** In order to assess whether the element provides consideration for only the passage of time, an entity applies judgement and considers relevant factors such as the currency in which the financial asset is denominated and the period for which the interest rate is set.

- **Credit risk:** it considers only the risk of the counterparty.
- **Liquidity cost:** it considers the financial risk due to uncertain liquidity on each transaction.

Prior to entering into a transaction on behalf of the Muwakkil, the Wakil will agree a rate of profit that the Muwakkil expects to achieve on the transaction. Any amount that the Wakil earns in excess of the profit rate will be retained by the Wakil as an incentive in addition to the remuneration specified in the Wakil Offer. In case the anticipated rate of profit is not achievable at the start of the Transaction, then the Wakil will need to resort back to the Muwakkil to agree to invest at a lower rate, otherwise the transaction would be terminated as this will constitute a termination event

Should the pool of treasury funds over-perform, any amount in excess would be retained by the *wakil*. Should the treasury funds under-perform and the anticipated

rate of profit is deemed not achievable, there is an early termination of the transaction. The investment is returned back to the IFI (*muwakkil)*.

The *muwakkil* profit is computed on the *wakala* investment and compensates for the time value of money, the liquidity cost and the counterparty credit risk. This is compliant with the SPPP requirements. The fact that the *muwakkil* profit does not include margin would not conflict with the SPPP requirements according to IFRS 9 B4.1.7A. The compensation for administrative expenses is included in the agency fees.

(c) **Agency fees**

The *wakil* is entitled to the pre-agreed agency fee specified in the *wakil* offer in respect of each investment transaction. It is a fixed amount computed on the investment.

This agency fee refers to a compensation for administrative expenses and would not conflict with the SPPP test as per IFRS 9 B4.1.3.

(d) **Early termination (prepayment)**

The agreement includes termination event. This mainly refers to default of one party, insolvency or failure to perform its obligation. For the funds that are un-invested, they shall be returned in full to the *muwakkil*. The funds that are invested, the *wakil* will arrange to liquidate the investment and return the funds along with any profit earned (limited to the profit rate indicated in the initial offer). No termination penalties are stipulated in the *wakala* agreement as this would contradict Shariah rules.

Consequently, the early termination feature does not generate any prepayment penalty. This would not conflict with the SPPP test.

(e) **Late payment**

A late payment provision is usually included in the *wakala* agreement as shown below.

Late Payment

In the case of late payments, the late-paying counterparty will make every endeavour to **back value the payment** of the funds. In the event that this cannot be carried out, the receiving counterparty will make a reasonable **claim for actual damages incurred** to the late-paying counterparty. The late-paying counterparty will then **settle the claim.**

The agreement stipulates that late payment should be computed on outstanding funds to compensate the other party for the actual damages. The late payment would

be computed taking into account the length of the delay period at least. In that event, IFIs are not allowed to factor lost opportunity cost or cost of funding and any excess remaining after deducting actual costs and expenses is donated on behalf of the other counterparty to charitable institutions.

Consequently, the late payment would not conflict with the SPPP test.

Therefore, it is appropriate to conclude that the return on the *wakala* investment instrument includes the investment amount that is equivalent to the principal for a conventional loan, and a *muwakkil* profit that is computed on the investment amount and that is designed to compensate for the time value of money, the credit risk and the liquidity cost.

9.5 Commodity *Murabaha* IFRS 9 Analysis

This section provides technical analysis of the Islamic finance principle of *Tawarruq*, otherwise known as commodity *murabaha* instrument that is used mainly as a counterparty inter-banking placement for liquidity, as well as an asset financing instrument. In this section I discuss the relevant IFRS 9 standard under which the commodity *murabaha* instrument (CMI) should be recognised by identify contractual features that are included in the standard master IIFM-ISDA commodity *murabaha* agreement and analyse whether the cash-flows are compliant with the Solely Payments of Principal and Profit (SPPP) tests according to IFRS 9. However, let us have a closer look first how it works, before I start the IFRS 9 analysis for this Islamic finance instrument.

Step 1: IFI A transfers the commodity purchase price to the agent (IFI B) on the value date for payment to the supplier of the specified commodity.

Step 2: IFI B, as an agent, purchases eligible goods/commodities on behalf of IFI A at the agreed purchase price on a cash basis and receive the commodity as shown in the extracts below from the IIFM/ISDA legal agreement.

"Commodity Trade Transaction" means a Morabaha-based transaction whereby the Agent purchases Eligible Goods from a Supplier as agent for the Investor on a cash basis and immediately thereafter the Investor sells the Eligible Goods to the Agent on deferred payment terms at the Sale Price.

"Purchase Price" means such price as is calculated by multiplying the unit purchase price by the quantity of goods purchased or to be purchased by the Investor and denotes the sum of money that the Investor has paid or will be required to pay in regard to Commodity Trade Transaction, as indicated in the Investment Offer.

Step 3: Immediately thereafter, IFI A sells the purchased commodity to IFI B on deferred payment terms at the sale price = purchase price + profit.

"Sale Price" means the Purchase Price plus the mutually agreed upon profit margin as is calculated by multiplying the unit sale price by the quantity of goods sold by the Investor and denotes the sum of money that the Investor will receive from the Agent on the Deferred Payment Date, as indicated in the Investment Offer.

Step 4: The sale price is paid by IFI B on maturity of the agreed term or on an instalment basis over the period of the *murabaha* transaction as stated in the contract, IFI B in its capacity as an agent is entitled to add its fees to the purchase price.

Agent's Fees

For and in consideration of acting as Agent hereunder, the Agent is hereby entitled to add its fees to the Purchase Price of the Commodity Trade Transaction as agreed by the parties in writing such that it will form part of the Purchase Price and it will not be payable separately by the Investor.

9.5.1 *Applicable accounting standard to the Commodity* Murabaha *Instrument*

The CMI includes three key transactions:

- A purchase of commodity by IFI A through the agent, gaining possession thereof and title thereto (step 2),
- A sale of the commodity by IFI A to IFI B on a deferred payment basis that comprises the cost of the asset and a pre-agreed profit amount (step 3), and;
- The deferred payment is paid by IFI B to IFI A as agreed in the contract (step 4).

According to an IASB/FASB paper,[3] there is uncertainty towards the accounting treatment of the 3 transactions above:

(a) *for the seller, the form of these transactions is that of cash purchase and, in almost all cases, immediate sale with deferred payment;*
(b) *for the purchaser, the form of these transactions is that of purchase on deferred payments, and*
(c) ***the financial instruments created by the transactions fall within the scope of IFRS 9 and IAS 32****, as would financing contracts provided to a business's customers.*

More specifically, the relevant paragraph in IAS 32 is paragraph 11:

IAS 32 11 A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

[3] Application of IFRS 15 to permitted Islamic Finance Transactions, FASB/IASB Joint Transition Resource Group for Revenue Recognition, Paper topic Application of IFRS 15 to permitted Islamic Finance Transactions, Wayne Upton and Ian Mackintosh, 26 January 2015, p. 3.

A financial asset is any asset that is:

(a) cash;
(b) an equity instrument of another entity;
(c) **a contractual right:**

(i) **to receive cash or another financial asset from another entity;** or (. . .)

As the commodity *murabaha* is a financial instrument, it falls under the classification and measurement requirements of IAS 39 and IFRS 9, when enacted by IFIs. Prior to making the C&M IFRS 9 decision, it is assumed that the purchase and sale is linked such that IFI A is acting as an agent as opposed to a principal (which would require grossing up of revenue and expense). On the basis that IFRS 9 is not expected to change this principle (this is may be understood with respect to Shariah compliance), however a further consideration should be given to this by IFIs when applying IFRS 15 for the first time.

9.5.2 *IFRS 9 analysis of the Commodity* Murabaha *Instrument*

By analysing the contractual characteristics of the CMI which impact the return generated from this transaction, the IFRS 9 analysis is performed.

As per IFRS 9 B4.1.7A, to be considered SPPI, *a basic lending arrangement should include consideration for the time value of money and credit risk that are typically the most significant elements of interest. However, in such an arrangement, interest can also include consideration for other basic lending risks (for example, liquidity risk) and costs (for example, administrative costs) associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement.*

If other components are present in the arrangement (e.g. share price and commodity indexation), the instrument would not satisfy the SPPP criterion.

As an investor, IFI A invests surplus funds with another bank, say IFI B, and will appoint this bank as its buying agent. The agent then buys commodities on behalf of IFI A on a cash basis. Subsequently, IFI A sells the commodity to the agent at a deferred sale price. The sale price is defined as follows in the agreement:

"*Sale Price*" means the Purchase Price plus the mutually agreed upon profit margin as is calculated by multiplying the unit sale price by the quantity of goods sold by the Investor and denotes the sum of money that the Investor will receive from the Agent on the Deferred Payment Date, as indicated in the Investment Offer.

$$Sale\ Price = \text{Purchase Price} + \text{Profit}$$

Where

The purchase price is defined as follows:

"Purchase Price" means such price as is calculated by multiplying the unit purchase price by the quantity of goods purchased or to be purchased by the Investor and denotes the sum of money that the Investor has paid or will be required to pay in regard to Commodity Trade Transaction, as indicated in the Investment Offer.

The purchase price corresponds to the surplus fund that IFI A wants to invest through placement with IFI B to meet short term liquidity management. The Profit corresponds to an agreed margin over the term of the arrangement equivalent to a lender's return in a conventional interbank financing.

The purchase price is the price paid by the IFI to a commodity broker (cash price). The purchase price corresponds to the principal in a conventional loan.

As for a conventional loan, the IFI will be paid the principal amount (purchase price). This is in accordance with the SPPP requirements under IFRS 9.

The profit is determined as a percentage per annum and is fixed for each transaction. It is computed on the principal amount, e.g. the purchase price, in a similar way to a conventional interbank lending. The profit is composed by three components:

- **Prevailing market rate:** a benchmark rate is used to compensate for the passage of time. A different benchmark rate is used depending on the currency of the CMI, e.g. the Euribor for euro, the Libor for GBP, the prime rate for the USD. This is consistent with the application of IFRS 9 (paragraph B1.4.9A) in respect of the passage of time.

  IFRS 9 B4.1.9A Time value of money is the element of interest that provides consideration for only the passage of time. **That is, the time value of money element does not provide consideration for other risks or costs associated with holding the financial asset.** In order to assess whether the element provides consideration for only the passage of time, an entity applies judgement and considers relevant factors such as the currency in which the financial asset is denominated and the period for which the interest rate is set.

- **Credit risk:** it considers only the risk of the counterparty.
- **Liquidity cost:** it considers the financial risk due to uncertain liquidity on each transaction.

The profit is fixed at the beginning of the transaction and could not be changed subsequently.

The profit is computed on the purchase price and corresponds to interest for a conventional loan and would not conflict with the SPPP requirements under IFRS 9.

Therefore, we conclude that the return on the CMI includes the sale price that is equivalent to the principal for a conventional loan, and an agreed profit that is computed on the purchase price and that is designed to compensate for the deferred

payment of the sale price, the credit risk and the liquidity cost. This guiding analysis that I demonstrated here could be used for any other Islamic finance product that is structured on this instrument, i.e. commodity *murabaha* financing structure.

9.6 Conclusion

The contractual agreement of home finance products suggests that an IFI is legally a co-investment owner in an asset chosen by a customer of the IFI. Therefore, it could be argued that the transaction should be analysed under IFRS 9 B4.1.16.

IFRS 9 B4.1.16 *States that this is may be the case if the financial asset represents an investment in particular assets or cash flows and hence the contractual cash flows are not solely payments of principal and interest on the principal amount outstanding. For example, if the contractual terms stipulate that the financial asset's cash flows increase as more automobiles use a particular toll road, those contractual cash flows are inconsistent with a basic lending arrangement. As a result, the instrument would not satisfy the condition in paragraphs 4.1.2(b) and 4.1.2A(b). This could be the case when a creditor's claim is limited to specified assets of the debtor or the cash flows from specified assets (for example, a 'non-recourse' financial asset).*

Overall, it is clear, as I illustrated in this chapter, that the classification and measurement of an Islamic financial instrument under IFRS 9 is determined by:

- The contractual cash flow characteristics of the financial asset, the so-called "solely payment of principal and profit test" (SPPP); and
- The IFI's business model for managing the financial assets, the process of which and conclusion is summarised in Fig. 9.2.

However, as explained in my analysis above of the home finance products and similar instruments that include three contracts diminishing *musharakah* (partnership), *ijarah* (leasing) and *bay*' (sale) could be assimilated to a conventional mortgage commercialised by non-Islamic financial institutions. The payment (capital and rent) does not change because of the value of the property. Consequently, this paragraph is irrelevant for home finance products and similar instruments. An IFI does not enter such finance arrangement as an investment venture with the aim to benefit from the appreciation in the value of the asset. This would be the case in a pure *Musharaka* financing, which hardly exists in the Islamic finance industry. The home finance products are pure finance arrangement to help the customer acquire their property in a Shariah compliant manner, rather than an investment arrangement between an IFI and its customer.

In order to address this accounting challenge, IFIs state in the legal agreement, under the partnership in an ownership structure, that they do not have any beneficial interest in any increase in the value of the asset, as explained above. Consequently, any increase or decrease in the value of the asset over the term will only impact the customer. While this is not ideal and can be argued from a Shariah compliance

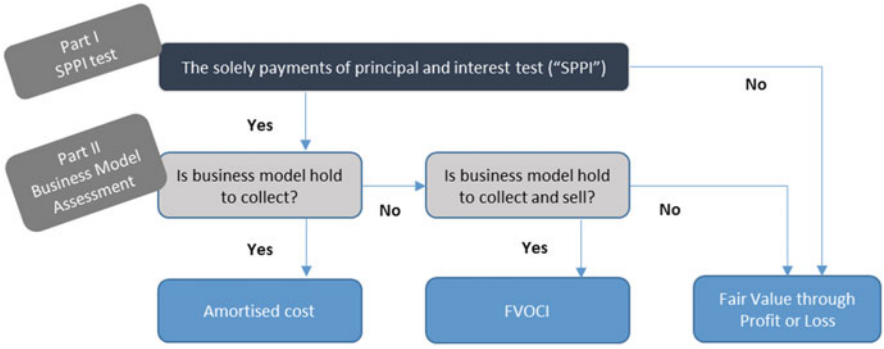


Fig. 9.2 Classification and measurement of an instrument under IFRS 9

perspective, some Islamic scholars view this as a divergence from the true partnership contract and its requirements. There is a responsibility on the Shariah supervisory committee and Shariah compliance department of IFIs to ensure this issue is dealt with in accordance with Shariah requirements in practice, notwithstanding the home finance legal terms and the accounting treatment and financial reporting. This is because they are overall accountable to their Shariah governance that forms their identity, which would override other commercial considerations.

I have also shown and demonstrated, in this chapter, the logical analysis of *wakala* and commodity *murabaha* as instruments under IFRS 9 and satisfying the SPPP test criteria. In order to do that I applied the accounting principle of substance over form and a technical analysis of the contractual characteristics of each instrument while bearing in mind Shariah rules and requirements. The analysis I provided here for equity-based and sale-based Islamic finance principles represents an overall guiding framework for the Islamic finance industry to implement and follow in its accounting and financial reporting analysis. This step by step guide could be applied in the same manner to all different products that are based and structured on such financial instruments.

Hence, having provided a technical analysis of the application of IFRS 9 to various Islamic financial instruments in this chapter, I will be providing in the next chapter similar analysis for sukuk. So, stay tuned to the analysis I provided in this chapter and let us address another challenge regarding the IFRS 9 treatment of sukuk in the next chapter.

Chapter 10
Technical Analysis of IFRS 9 Application to Sukuk

10.1 Introduction

I have discussed in the previous chapter (Chap. 9) the IFRS 9 implication on various Islamic financial instruments and its accounting and reporting treatment. This Chapter aims to examine the International Financial Reporting Standard 9 (IFRS 9) from a technical perspective in relation to sukuk (commonly known as Islamic certificates) in light of the most common and widely used sukuk instruments in the Islamic finance industry. Sukuk are the Shariah compliant alternative to conventional bond, it is an investment certificate that represents an undivided ownership share in the underlying assets of the sukuk. As part of this technical analysis of IFRS 9 application to sukuk, I identify key contractual clauses that are embedded in various sukuk structures and analyse whether cash flows are compliant with the Solely Payments of Principle and Interest (SPPI) tests according to IFRS 9. However, as this analysis is tailored to Islamic finance instruments, as mentioned in Chap. 9, I will be using here an alternative accounting terminology that I coined, Solely Payments of Principal and Profit (SPPP) instead of the actual terminology used by IFRS 9 'SPPI'.

The objective of IFRS 9 is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The application of IFRS 9 to sukuk, however, would require a further analysis in relation to Islamic financial institutions (IFIs) and their financial reporting requirements. It should not be applied as is in its conventional form by IFIs without appropriate assessment and tailoring for their operational model and requirements. Sukuk are different financial instrument to conventional bond and any IFRS 9 analysis should take into account its nature, structure and operation.

In applying IFRS 9 standard, the focus of the analysis is on the economic substance. Therefore, IFRS 9 could be the relevant accounting treatment, which

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_10

would apply to such financial instruments when enacted by IFIs. There is, however, a caveat to this statement as the structure and risk profile of the various sukuk structures out in market is different to conventional bonds, and this should be factored in the financial reporting of IFIs and sukuk issuers. At least 10 sukuk issues were selected in different jurisdictions for the sampling methodology and outcomes. The following sections provide a more in-depth technical analysis to illustrate this conclusion focusing on some of the sampled sukuk to illustrate the analysis and provide actual examples. In this Chapter I discuss various types and structures of sukuk, however, the aim is not to analyse all of it as this would not be practical. The analysis will focus on key types and structures of sukuk in the Islamic finance market, which would provide a robust and comprehensive guide for the Islamic finance industry and would apply to other sukuk structures. Any other sukuk instruments would fall under the technical IFRS 9 analysis and conclusion provided here.

10.2 Applicable Accounting Standard to Sukuk

Sukuk investments are considered as financial instruments[1] by Islamic banks in general according to a paper by the IASB staff.

27 Islamic financial institutions classify sukuk in different ways. For example, some classify sukuk as:

(a) *'debt-like' assets classified as held to maturity,*
(b) *available-for-sale equity or debt assets,*
(c) *held-to-maturity financial assets (usually those following IAS 39 or local standards based on IAS 39); or*
(d) *financial assets measured at amortised cost (corresponding to one of the three categories of financial asset in IFRS 9).*

28 IFIs did not classify the instruments based on the characteristics of the underlying assets (for example, real estate). This suggests that they consider sukuk as, in substance and for financial reporting, a financial instrument.

Indeed, sukuks in which an IFI invests correspond to an investment of funds to manage liquidity. The rate applicable on the certificate is agreed prior to entering into the transaction between the parties; it is fixed or floating depending on the sukuk underlying investment. Financial instruments created by such transactions fall within the scope of IAS 32 11.

[1]Outreach on Shariah-Compliant Instruments and Transactions, Issues in the application of IFRS 9 to Islamic Finance, February 2016, IASB staff.

IAS 32, 11 A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

A financial asset is any asset that is*:*

(a) cash;
(b) an equity instrument of another entity;
(c) **a contractual right***:*

(i) ***to receive cash or another financial asset from another entity;*** *or*
(ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or (. . .)

As sukuk is a financial instrument it falls under the classification and measurement requirements of IAS 39, and IFRS 9.

10.2.1 Nature of the Financial Instrument: Debt or Equity?

Whilst the definition of equity instruments refers to the residual profit in the net assets of a sukuk, IAS 32 considers equity instruments as not being a debt instrument.

IAS 32, 11 An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

IAS 32, 16 When an issuer applies the definitions in paragraph 11 to determine whether a financial instrument is an equity instrument rather than a financial liability, the instrument is an equity instrument if, and only if, both conditions (a) and (b) below are met.

(a) The instrument includes no contractual obligation*:*

(i) to deliver cash or another financial asset to another entity; or
(ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the issuer.

(b) If the instrument will or may be settled in the issuer's own equity instruments, it is*:*

(i) a non-derivative that includes no contractual obligation for the issuer to deliver a variable number of its own equity instruments; or
(ii) a derivative that will be settled only by the issuer exchanging a fixed amount of cash or another financial asset for a fixed number of its own equity instruments. For this purpose, the issuer's own equity instruments do not include instruments that have all the features and meet the conditions described in paragraphs 16A and 16B or paragraphs 16C and 16D, or instruments that are contracts for the future receipt or delivery of the issuer's own equity instruments. (IAS 32)

Therefore, to be considered as an equity instrument, the contract should include an unconditional right to avoid distributing cash-flows or any other financial assets. Subsequently, it means that the instrument includes no obligation to pay cash flows (as a return or as a payment of capital). The analysis of these features should be performed on the contractual basis and not on the economic substance of the sukuk.

Table 10.1 Accounting analysis of sukuk contractual obligations

Sukuk name	Payment clause	Maturity date	Conclusion
HM Treasury UK Sovereign Sukuk PLC	*Periodic distribution* • 2.036% per annum on the outstanding face amount of the Certificates	£200,000,000 certificates due 2019	Debt like instrument
Saudi Electricity Co. 2022	*Periodic distribution* • 2.665% • 4.211% Applicable rate per annum × Outstanding face amount of the Certificates × 30/360 day basis Payable semi-annually	• US$500,000,000 in respect of the 2017 Certificates and • US$1,250,000,000 in respect of the 2022 Certificates	Debt like instrument
Qatar Government 2023	*Periodic distribution* • 2.099% • 3.241% Applicable rate per annum × Outstanding face amount of the Certificates × 30/360 day basis Payable semi-annually	• US$2,000,000,000 2.099%. Trust Certificates due 2018. • US$2,000,000,000 3.241%. Trust Certificates due 2023	Debt like instrument
Islamic Development Bank 2018	*Periodic distribution* • Fixed: The periodic distribution amount payable in respect of each trust certificate for any return accumulation period shall be the relevant fixed amount and, if the trust certificates are in more than one specified denomination, shall be the relevant fixed amount in respect of the relevant specified denomination per cent. per annum [payable annually/semi-annually/quarterly/monthly] in arrear • Floating: Reference Rate: [For example, LIBOR or EURIBOR]	Maturity date: [Specify date or (for floating rate periodic distribution trust certificates) Periodic Distribution Date falling in or nearest to the relevant month and year][Trust certificates may not be issued with a Maturity Date of less than 1 year]	Debt like instrument

To illustrate this point, some further analysis is provided in Table 10.1 in relation to some selected sukuk issues from the sample.

None of the sukuk includes an unconditional right to avoid distributing cash-flows or any other financial assets. All sukuk certificates earn fixed or floating return over a period of time. Also, the certificates have a maturity date.

The certificates issued by the sukuks are considered to be equivalent to debt instruments. Consequently, they are subject to the SPPP and business model analysis for classification purpose.

10.3 IFRS 9 Analysis

This section aims to discuss the contractual characteristics of Sukuk in the Islamic finance market in relation to IFRS 9, which impact the return.

According to IFRS 9 B4.1.7A, for sukuk to be considered SPPP compliant, *a basic lending arrangement should include consideration for the time value of money and credit risk that are typically the most significant elements of interest. However, in such an arrangement, interest can also include consideration for other basic lending risks (for example, liquidity risk) and costs (for example, administrative costs) associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement*.

If other components are present (e.g. share price, commodity indexation), the instrument would not satisfy the SPPP criterion. As sukuks are specific instruments, the focus of this IFRS 9 analysis would be first on the feature "non-recourse" that is the more likely to conflict with the SPPP analysis, "Non-recourse financing", and then consider the other features of the sukuks contractual characteristics of "Prepayment option & Late payment", as shown in the sections below.

10.3.1 Non-recourse Financing

The sukuks in our sample have the following underlying assets.

Sukuk name	Underlying assets	Page	Conclusion
HM Treasury UK Sovereign Sukuk PLC	The premises to be leased by the trustee will consist of certain plots of land and buildings used for governmental purposes	Page 10	Ijara assets
Saudi Electricity Co. 2022	The trustee (in its capacity as the lessor) will lease the relevant *Ijara* assets to SEC (in its capacity as the lessee) pursuant to the relevant *Ijara* agreement	Page 24	Ijara assets
Qatar Government 2023	The lease assets which are the subject of the trust constituted for the trust certificates comprise an ownership interest in a portfolio of rights in lease assets. The lease assets in respect of the trust certificates will be owned by the trustee and will, represent obligations of the lessee and obligor in Qatar. The lease assets comprise an area of land located in Doha, Qatar which is approximately 9,779,719 m^2 in size. The Ministry of Economy and Finance has conducted an internal valuation of the land comprising the lease assets and has confirmed that such land is valued at US$4.0 billion	Page 116	Ijara assets

(continued)

Sukuk name	Underlying assets	Page	Conclusion
Islamic Development Bank 2018	The trust purchases from the IsDB a portfolio of assets created by the IsDB which shall be separate and independent from all other assets of the IsDB and shall comprise: (a) at least 33% tangible assets comprising of Leased Assets, Disbursing Istisna'a Assets, Shares and/or Sukuk; and (b) no more than 67% intangible assets comprising of Istisna'a Receivables and/or, Murabaha Receivables (page 19)	Page 19	Mixed underlying (tangible, intangible and financial assets)

(a) Credit Linked Instruments or Silo?

Contractually linked instruments are those instruments where the payments on some financial assets are contractually linked to payments received on a pool of other instruments. It means that the holders of such instruments have the right to payments of principal and profit on the principal amount outstanding only if the issuer generates sufficient cash flows to satisfy higher-ranking creditors.

Our analysis concluded that sukuks are not contractually linked instruments. Indeed, for one sukuk, there is only one tranche of certificate. For the other sukuks, all series are *pari passu* between them. Also, within each series, all certificates are also *pari passu*.

Sukuk name	Extract from the prospectus	Number of series	Page
HM Treasury UK Sovereign Sukuk PLC	The prospectus does not stipulate any ranking between certificateholders. However, it is specified in the prospectus that all periodic and dissolution distribution amounts will be paid *pro rata* to the respective holding by a certificateholder. Also, there is only one series of certificates issued by the trust. Consequently, the distributions are, in substance, *pari passu*	1	Page 14
Saudi Electricity Co. 2022	Each Certificate will at all times rank *pari passu*, without any preference or priority, with all other Certificates of the relevant Series	2	Page 28
Qatar Government 2023	Each Trust Certificate ranks *pari passu* without any preference or priority, with the other Trust Certificates	2	Page 28
Islamic Development Bank 2018	Each Trust Certificate will evidence an undivided beneficial ownership interest of the Certificateholders in the Trust Assets of the relevant Series and will be limited recourse obligations of the Trustee and will rank *pari passu*, without any preference or priority, with all other present and future Trust Certificates issued under the Programme	Several	Page 23

As none of the sukuks is a credit linked instrument, IFRS 9 paragraphs from IFRS 9 B4.1.20 to IFRS 9 B4.1.26 that refer to credit linked instrument are irrelevant for this sukuk analysis.

For three sukuks however, several series of trust certificates are issued with different maturities. The recourse to the issuer in respect of each series is limited to the trust assets of that series and proceeds of such trust assets are the sole source of payments on the relevant trust certificates.

Thus, as in substance all the assets (trust assets) and liabilities (certificate of a series) of a portion of the entity are ring-fenced from the overall investee, each portion represented should be seen as a silo according to IFRS 10 B77.

IFRS 10 *B76 An investor shall consider whether it treats a portion of an investee as a deemed separate entity and, if so, whether it controls the deemed separate entity.*

IFRS 10 *B77 An investor shall treat a portion of an investee as a deemed separate entity if and only if the following condition is satisfied:*

Specified assets of the investee (and related credit enhancements, if any) are the only source of payment for specified liabilities of, or specified other interests in, the investee. Parties other than those with the specified liability do not have rights or obligations related to the specified assets or to residual cash flows from those assets. In substance, none of the returns from the specified assets can be used by the remaining investee and none of the liabilities of the deemed separate entity are payable from the assets of the remaining investee. **Thus, in substance, all the assets, liabilities and equity of that deemed separate entity are ring-fenced from the overall investee. Such a deemed separate entity is often called a 'silo'.**

As investments in the sukuks can be considered as a silo with non-recourse features, paragraphs IFRS 9 B4.1.16 to IFRS 9 B4.1.17 that refer to non-recourse exposures would apply to this sukuk analysis.

10.3.2 Non-recourse Features

IFRS 9 standard includes very limited guidance with regards to the "non-recourse" financing. It is simply stipulated that:

- Once the cash flows of a sukuk are indexed on the performance of the financed asset or project, this indexation prevents the sukuk to be considered as SPPP (IFRS 9 B4.1.16).
- The « non-recourse » feature does not itself necessarily preclude the financial asset to meet the SPPP requirements (IFRS 9 B4.1.17).

The extract from the standard that refers to the "non-recourse" features is presented below:

IFRS 9 B4.1.16 This may be the case if the financial asset represents an investment in particular assets or cash flows and hence the contractual cash flows are not solely payments of principal and interest on the principal amount outstanding. For example, if the contractual terms stipulate that the financial asset's cash flows increase as more automobiles use a particular toll road, those contractual cash flows are inconsistent with a basic lending arrangement. As a result, the instrument would not satisfy the condition in paragraphs 4.1.2(b) and 4.1.2A(b). **This could be the case when a creditor's claim is limited to specified assets of the debtor or the cash flows from specified assets (for example, a 'non-recourse' financial asset).**

IFRS 9 B4.1.17 However, **the fact that a financial asset is non-recourse does not in itself necessarily preclude the financial asset from meeting the condition in paragraphs 4.1.2 (b) and 4.1.2A(b).** In such situations, the creditor is required to assess ('look through to') the particular underlying assets or cash flows to determine whether the contractual cash flows of the financial asset being classified are payments of principal and interest on the principal amount outstanding. If the terms of the financial asset give rise to any other cash flows or limit the cash flows in a manner inconsistent with payments representing principal and interest, the financial asset does not meet the condition in paragraphs 4.1.2(b) and 4.1.2A(b). **Whether the underlying assets are financial assets or non-financial assets does not in itself affect this assessment.**

An analysis of the "non-recourse" feature is to be led in the following two situations to assess whether the risk towards the asset (likely to be not SPPP except if all underlying assets are SPPP) or towards the counterparty (does not conflict with the SPPP criterion):

Case 1	Case 2
The instrument is **legally** "non-recourse" with the issuer. **It means that the recourse is only towards the assets and the proceeds from the assets but not on the issuer**	The financing granted to an ad-hoc entity/special purpose entity is "non-recourse" **in substance**. It means that the recourse is on the issuer (SPV) but, if it can be demonstrated that the SPV has no other assets, consequently it is non-recourse
In case of default of the issuer, its financial obligations towards the certificateholders is cancelled once the certificateholders repossess the asset given in guarantee; the certificateholders are not entitled to request the issuer to repay the shortfall should the value of the asset or the project be insufficient (limited recourse to the value of the guarantee)	In the absence of equity tranche (or other guarantee mechanism) enough dimensioned, it is considered that the certificateholders are taking a direct risk on the value of the financed asset or the ad-hoc entity

Following our analysis of the prospectus for each sukuk, they can be allocated as follows:

Sukuk name	Comment	Case 1 or 2	Reference
HM Treasury UK Sovereign Sukuk PLC	Certificate holders have no recourse to any assets of the trustee in any capacity other than the trust assets in respect of any shortfall in the expected amounts from the trust assets	Case 1	Page 14

(continued)

Sukuk name	Comment	Case 1 or 2	Reference
Saudi Electricity Co. 2022	Certificateholders of a series have no recourse to any assets other than the Trust Assets in respect of that Series of the Trustee or SEC or the Delegate or any Agent or any of their respective affiliates in respect of any shortfall in the expected amounts from the relevant trust assets to the extent	Case 1	Page 28
Qatar Government 2023	Certificateholders will otherwise have no recourse to any assets of the Issuer or the State in respect of any shortfall in the expected amounts due under the relevant Trust Assets	Case 1	Page 6
Islamic Development Bank 2018	Recourse to IDB trust services limited in respect of each series of trust certificates therefore is limited to the trust assets of that relevant series of trust certificates and the proceeds of such trust assets are the primary source of payments on the relevant series of trust certificates	Case 1	Page 12

Therefore, the questions that need to be addressed are as follows:

- Are contractual cash-flows received from the certificate SPPP in the normal course of business?
- Could the certificateholders benefit from the positive performance of the financed asset, notably if there is any surplus on maturity of the certificates?
- Does the "non-recourse" feature of the instrument essentially create an exposure against the asset? This feature is particularly important in case of an existing repurchase option of the certificates during the transaction period or at the maturity of the certificate.

Are contractual cash-flows received from the sukuk certificates SPPP?

The purpose of the analysis in respect to the cash-flows (excluding default consideration) is to demonstrate whether the contractual cash-flows are SPPP or not. There are two possibilities:

1. There is a pass-through principle: it means that it is clearly stated that cash-flows are paid to the certificateholders if, and only if, cash-flows are received on the assets diminished management fees (auditor fees, service agency fees etc). In this case there is a need to analyse further the cash-flows to assess the SPPP criteria:
   - If cash-flows are distributed on a going-basis or if the issuer can invest them before distributing them to the certificateholders,
   - If cash-flows could be contractually split between the payment of principal and the payment of profit distribution.
2. Determined contractual cash-flows are to be paid to certificateholders on a regular basis at a specific profit rate (fixed or floating).

According to our analysis of the prospectus for each sukuk, there are determined contractual cash-flows that need to be paid on a periodic basis and at the dissolution of the sukuk certificates.

Periodic Distribution Amount

On each periodic distribution date, the certificateholders receive, from the trustee, a periodic distribution amount that corresponds to a profit rate (fixed or floating), the face amount of the certificate and the number of days in such relevant period calculated on 30/360 day basis.

Sukuk name	Rate	Frequency	Page
HM Treasury UK Sovereign Sukuk PLC	Fixed at 2.036% per annum on the outstanding face amount of the Certificates	Payable semi-annually	Page 18
Saudi Electricity Co. 2022	Fixed at 2.665% per annum for Trust Certificates due 2017 Fixed at 4.211% per annum for Trust Certificates due 2022	Payable semi-annually	Page 26
Qatar Government 2023	Fixed at 2.099% per annum for Trust Certificates due 2018 Fixed at 3.241% per annum for Trust Certificates due 2023	Payable semi-annually	Page 14
Islamic Development Bank 2018	Final terms are embedded in the prospectus. They stipulate a fixed or floating payment that needs to be selected at the investment date: • Fixed, or • Floating with a reference rate (for example LIBOR or EURIBOR)	Not specified in the Final Terms	Page 53 (fixed) Page 55 (floating)

Dissolution Payment

Certificates (or series of certificates issued by a trust) should be redeemed on the scheduled dissolution date. The dissolution distribution amount corresponds to the face value of the certificates plus all accrued and unpaid periodic distribution amounts.

Sukuk name	Rate	Page
HM Treasury UK Sovereign Sukuk PLC	Dissolution Distribution Amount: The aggregate outstanding face amount of the certificates plus all accrued and unpaid periodic distribution amounts in respect of such certificates	Page 13
Saudi Electricity Co. 2022	Dissolution Distribution Amount: In relation to each Series, the aggregate outstanding face amount of the Certificates of that Series plus a U.S. dollar amount equal to all accrued and unpaid Periodic Distribution Amounts in respect of such Certificates	Page 27
Qatar Government 2023	As of any date, in relation to each Series, the aggregate principal amount of the Trust Certificates of that Series plus accrued and unpaid Periodic Distribution Amounts in respect of such Series as of such date	Page 15

(continued)

Sukuk name	Rate	Page
Islamic Development Bank 2018	The purchase price payable by the IsDB pursuant to each repurchase agreement will be an amount equal to (a) the aggregate nominal amount of the relevant Series of Trust Certificates, and (b) the amount of accrued but unpaid periodic distribution amounts on such date together with any additional amounts required to be paid in respect of the relevant series	Page 21

Consequently, subject to specific termination events analysed below, it can be concluded, that the cash-flows in the normal course of business, are SPPP. Periodic profit distributions correspond to interest for a conventional bond and the dissolution distribution amount to the face value of a conventional bond.

The analysis of the sukuk prospectuses concludes that there is no upside risk; the certificateholders cannot benefit of a surplus of the underlying assets. Indeed, the certificateholders are entitled to receive the accrued unpaid periodic distribution amounts and the face amount of the certificates. If there is any surplus, it will usually go to the servicing agent as an incentive (to ensure any excess spread is not trapped in), which would always be the originator of the sukuk assets.

Sukuk name	Dissolution payment	Page
HM Treasury UK Sovereign Sukuk PLC	(a) first, payment to certificateholders of all periodic distribution amounts due but unpaid, pro rata to their respective holdings; (b) second, only if such payment is due on a dissolution date, payment to certificateholders of the dissolution distribution amount, pro rata to their respective holdings; and (c) third, (A) to the trustee (in its capacity as issuer) to be retained for its own account by way of an incentive fee (which shall not form part of the trust assets), £2500; and (B) only on the scheduled dissolution date and provided that all amounts required to be paid on the certificates have been discharged in full, in payment of any residual amount to the trustee to be retained for its own account by way of profit	Page 14
Saudi Electricity Co. 2022	(a) first, to the delegate in respect of all amounts owing to it under the relevant transaction documents in its capacity as delegate; (b) second, only if such payment is made on a dissolution date, to the Principal Paying Agent for application in or towards payment *pari passu* and rateably of: (i) the relevant dissolution distribution amount; or (ii) the amount payable following a total loss event, as the case may be; (c) third, only if such payment is made on a dissolution date, to the servicing agent in or towards payment of all outstanding service charge amounts in respect of that series; and	Page 32

(continued)

Sukuk name	Dissolution payment	Page
	(d) fourth, only if such payment is made on a dissolution date in respect of the relevant series, payment of the residual amount (if any) to the trustee as an incentive payment	
Qatar Government 2023	(a) first, to the delegate in respect of all amounts owing to it under the transaction documents in its capacity as delegate and to any receiver, manager or administrative receiver or any other analogous officer appointed by the delegate in accordance with the declaration of trust; (b) second, to the principal paying agent for application in or towards payment *pari passu* and rateably of all periodic distribution amounts due but unpaid; (c) third, only if such payment is made on a dissolution date, to the principal paying agent for application in or towards payment *pari passu* and rateably of: (i) the relevant dissolution amount or (ii) the amount payable following a total loss event, as the case may be; and (d) fourth, to the servicing agent in or towards payment of all outstanding services charge amounts in respect of that series	Page 30
Islamic Development Bank 2018	(a) First, to the delegate in respect of all amounts owing to it under the Programme Documents and Transaction Documents – This corresponds to the face value of the certificate with the agreed profit (b) Secondly pro rata, to pay an amount equal to any other sums payable by the Trustee including rating fees, listing fees, paying agents' fees and corporate administrator fees together with any stamp, issue, registration, documentary and other fees, duties and taxes, including compensation and penalties. . . (c) Thirdly, in respect of each periodic distribution date, to pay to the principal paying agent any periodic distribution amounts due and payable on such Periodic Distribution Date	Page 38

In order to assess and answer the question posed above of whether the sukuk as an instrument creates essentially an exposure against the asset or the counterparty, my analysis is organised around the lifecycle of the sukuk issuance and its operations, periodic distribution and dissolution payment on or prior to the maturity date.

Periodic Distribution

For three sukuks, the underlying assets (leased assets) have the same maturity as the certificate. The sub-leases are the source from which the trustee shall fund the payment of the periodic distribution amounts to certificateholders. Also, the instalments of the sub-leases are matching with the certificate periodic distributions.

Sukuk name		Page
HM Treasury UK Sovereign Sukuk PLC	Such payments of rent are the source from which the trustee shall fund the payment of the periodic distribution amounts to certificateholders	Page 11

(continued)

Sukuk name		Page
Saudi Electricity Co. 2022	The lessee will pay rental payments in respect of the relevant Ijara assets which are intended to be sufficient to fund the periodic distribution amounts due under the relevant series of certificates on each periodic distribution date and which shall be applied by the trustee (in its capacity as the issuer) for that purpose	Page 24
Qatar Government 2023	The amount of each rental payment will be equal to the periodic distribution amount payable for the corresponding periodic distribution period under the relevant series of trust certificates which the trustee will pay the certificateholders on each periodic distribution date	Page 12

For sukuk for which the underlying asset is a portfolio of mixed assets, the *Wakeel* or agent collects funds that need to be distributed on a regular basis to the certificateholders.

Sukuk name		Page
Islamic Development Bank 2018	For the period between each calculation date (each a collection period), the Wakeel will collect all amounts due in respect of the portfolio of the relevant series of trust certificates and identify such collections in a report (the servicing report). All collections in the nature of principal (the principal collections) will be deposited in a principal ledger account with the Wakeel	Page 105

The certificates are limited recourse obligations and certificateholders may not be able to seek full recourse for failure to make payments due on the certificates. Thus, we may conclude that a default is unlikely to occur within the term of the transaction. The counterparties to the transaction and the certificates benefit from an investment grade; consequently, the transactions have a relatively low risk of default.

Sukuk name	Main counterparties to the trustee	Rating	Page
HM Treasury UK Sovereign Sukuk PLC	The Secretary of State for Communities and Local Government ("DCLG') is acting as landlord, tenant, obligor and servicing agent. DCLG is a ministerial department	*The Certificates are not rated by any rating agency.* However, the counterparty is the UK government (Ministerial department). Consequently, the risk of default is really limited	Page 15
Saudi Electricity Co. 2022	The Saudi Electricity Company ("**SEC**") is acting as Seller, Lessee and Servicing Agent SEC's issued share capital is approximately 74% owned by the Government of the Kingdom of Saudi Arabia and approximately 7% owned by Saudi Arabian Oil Company, which is wholly-owned by the Government. Consequently, the risk of default is really limited	*Each Series of Certificates is expected to be assigned a rating of A1 by Moody's Investors Service Ltd. ("Moody's"), AA- by Standard & Poor's (Dubai) Limited ("S&P") and a rating of AA- by Fitch Ratings Limited ("Fitch"). Each of Moody's, S&P and Fitch has rated SEC*	*Page 3*

(continued)

Sukuk name	Main counterparties to the trustee	Rating	Page
Qatar Government 2023	The SoQ Sukuk B Q.S.C. is acting as issuer and trustee The State of Qatar is acting as seller, lessee and Guarantor through the Ministry of Economy and Finance of Qatar	*Each Series of Trust Certificates is expected to be assigned ratings of Aa2 by Moody's Investors Service Ltd. (Moody's) and AA by Standard & Poor's Rating Services, a subsidiary of The McGraw Hill Companies, Inc. (S&P). (page 3)* The counterparty is the Qatari government. Consequently, the risk of default is really limited	
Islamic Development Bank 2018	The Islamic Development Bank ("IsDB") is acting as Wakeel and guarantor	*S&P has given the IsDB a long-term issuer rating of 'AAA' and a short-term issuer rating of 'A-1+' with a stable outlook. Moody's has given the IsDB a long-term issuer rating of 'Aaa' and a short-term issuer rating of P-1 with a stable outlook. Fitch has given the IsDB a long-term issuer rating of 'AAA' and a short-term issuer rating of 'F1+' with a stable outlook. (page 1)*	

As the counterparties involved in the transaction or the certificates are investment grade, it is very unlikely that a loss occurs with regards to the periodic distributions. The risk of the transaction is mainly a credit risk in relation to the counterparties to the transaction, but not a risk over the asset.

Dissolution Payment

Certificates (or series of certificates issued by a trust) should be redeemed on the scheduled dissolution date. This corresponds to the contractual maturity of the certificates. It can also be redeemed earlier, following specific events (*Early dissolution events*).

Scheduled Dissolution Date

The redemption of the certificates is funded by a purchase undertaking or an option to repurchase the underlying assets (leased asset or portfolio of mixed assets) at the request of the trustee. The proceeds from the sale are intended to fund the certificate payment. This corresponds to the repayment of the face value for a conventional bond.

Sukuk name	Mechanism at the dissolution date	Page
HM Treasury UK Sovereign Sukuk PLC	*Pursuant to the purchase undertaking, the trustee (acting directly or through the exercise agent) shall have the right to deliver an exercise notice to DCLG on or prior to the scheduled dissolution date which requires DCLG to purchase the unexpired residue of the term created by the head lease and to surrender the same to DCLG on the scheduled dissolution date in consideration for payment of the exercise price* – **The trustee (on behalf of the certificateholders) is entitled with the right to require DCLG to purchase the unexpired residue of the term**	Page 34
	Also, it is specified that "*the certificates **shall be redeemed on the scheduled dissolution date** and, other than as a result of the occurrence of a total loss event (as defined in the conditions), shall not be redeemed prior to such date.*" – **Consequently, the trust assets are to be repurchased on the scheduled dissolution date. This shall also correspond to the maturity date of the certificates**	Page 1
Saudi Electricity Co. 2022	*Pursuant to the purchase undertaking in respect of each series, the trustee may, on the relevant scheduled dissolution date, or prior thereto following the occurrence of a dissolution event or a change of control, exercise its rights under the relevant purchase undertaking and require SEC to purchase all of its rights, title, interests, benefits and other entitlements in and to the relevant Ijara assets* – **The trustee (on behalf of the certificateholders) is entitled with the right to require SEC to purchase all its rights and interests in the trust assets**	Page 25
Qatar Government 2023	The obligor will enter into the purchase undertaking on the closing date in favour of the trustee and the delegate, which will be governed by English law. Under the terms of the purchase undertaking, the obligor irrevocably undertakes to purchase, take, transfer, convey and deliver all of the trustee's rights, title, interests, benefits and other entitlements in and to the lease assets on: (i) the scheduled dissolution date of the trust certificates; or (ii) any earlier due date following the occurrence of a dissolution event in exchange for payment of the exercise price – **The obligor shall purchase back the leased assets from the trustee**	Page 119
Islamic Development Bank 2018	The IsDB has undertaken to purchase the outstanding portfolio on the relevant maturity date or following the occurrence of the dissolution event (as defined in the terms and conditions) pursuant to the purchase undertaking deed and the relevant repurchase agreement – **The trustee (on behalf of the certificateholders) is entitled with the right to require IsDB to purchase all its rights and interests in the trust assets**	Page 21

Also, for two sukuks, a party is acting as a guarantor.

Sukuk name	Is there a guarantor? Who does it work?	Page
HM Treasury UK Sovereign Sukuk PLC	None	N/A
Saudi Electricity Co. 2022	None	N/A
Qatar Government 2023	**The State of Qatar is acting as guarantor for the SoQ Sukuk A Q.S.C.**	Page 130
	The Guarantor will pursuant to a guarantee (the Guarantee) unconditionally and irrevocably guarantee the due and punctual payments of all amounts payable by the Obligor under the Purchase Undertakings, the Redemption Undertakings and the Substitution Undertakings (each as defined herein)	Page 3
Islamic Development Bank 2018	**IsDB** is the Wakeel in the Wakala Agreement. It is also acting as a guarantor for the operation of the certificates *The Guarantee will be executed by the IsDB in favour of IDB Trust Services Limited on or about the Programme Date and will be governed by English law. Pursuant to the Guarantee, the Guarantor has irrevocably and unconditionally guaranteed to IDB Trust Services Limited the punctual performance of any and all payment obligations arising or falling due under or in respect of each Portfolio Constituent Asset comprised in the Portfolio relating to the relevant Series of Trust Certificates (including the obligations of lessees in respect of any Leased Assets, issuers and obligors in respect of any Sukuk, obligors under Disbursing Istisna'a Assets and debtors in respect of any Murabaha Receivables and Istisna'a Receivables)* For the avoidance of doubt, the obligations guaranteed by the guarantor pursuant to the guarantee in respect of the assets comprised in the portfolio relating to the relevant series of trust certificates are solely those payment obligations which fall due under or in connection with such assets on and from the issue date to and including the dissolution date of the relevant series of trust certificates (save that, where amounts continue to be payable on any trust certificate pursuant to Condition 7.6 [fixed periodic distribution amount provisions—cessation of profit entitlement) or condition 8.4 (floating periodic distribution amount provisions—cessation of profit entitlement)], the obligations of the guarantor pursuant to the guarantee shall continue in full force and effect in respect of any obligations arising or falling due under or in respect of each portfolio constituent Asset comprised in the portfolio relating to the relevant series of trust certificates following such dissolution date and until all amounts in the form of profit due to certificateholders of that series have been paid to such certificateholders in full)	Page 1, 106 and 107

For each sukuk, no later than the dissolution date, the trust assets need to be purchased back from the trustee. Also, as described above, the counterparties to the transaction and the certificates benefit from an investment grade; consequently, the transactions have a low risk of default. Additionally, for two sukuks, guarantees are granted to ensure the proper completion of the transactions. Therefore, there is no risk that the certificateholders become owners of the trust assets, but they shall recover the face value of the certificate which corresponds to the principal invested at the outset.

Hence, there is no risk for the certificateholders that the assets belong to them at the end of the transaction. The risk of the transaction is mainly a credit risk regarding counterparties (or the guarantor, if any) involved in the transaction rather than a risk towards the underlying assets.

Early Dissolution Events

According to the various prospectuses that I analysed, sukuk can be liquidated before maturity because of events that lead to earlier dissolution or a call option granted to the obligor or the trustee. Some sukuks for which the underlying assets are leases, a total loss event leads to an early dissolution of the sukuk. A loss event is the total loss or destruction of, or damage to the whole of, the lease assets or any event or occurrence that renders the whole of the lease assets permanently unfit for any economic use. Also, for the sukuk Saudi Electricity Co. 2022, a tax event or a change of control could lead to an early dissolution. In the case of IsDB for which the underlying assets is a portfolio of mixed assets, events that can lead to an earlier dissolution of the sukuk cover notably breaches of covenants, failure to pay periodic distributions, termination of its activity.

Sukuk name	Loss event or similar event	Page
HM Treasury UK Sovereign Sukuk PLC	"Total Loss Event" means the total loss or destruction of, or damage to the whole of, the premises or any event or occurrence which renders the whole of the premises permanently unfit for any economic use and the repair or remedial work in respect thereof is wholly uneconomical, as determined by the servicing agent acting for and on behalf of the trustee	Page 18
Saudi Electricity Co. 2022	A "Total Loss Event" is defined as the total loss or destruction of, or damage to the relevant Ijara assets or any event or occurrence that renders the whole of the relevant Ijara assets permanently unfit for any economic use and (but only after taking into consideration any insurances or other indemnity granted by any third party in respect of the relevant Ijara Assets) the repair or remedial work in respect thereof is wholly uneconomical or the expropriation, confiscation, attachment, sequestration or execution of any legal process in respect of the relevant Ijara assets	Page 23
	Other than as a result of the occurrence of a Dissolution Event, a Tax Event or a Change of Control, the Trust will not be subject to dissolution, and the Certificates will not be redeemed, prior to the Scheduled Dissolution Date	Page 29

(continued)

Sukuk name	Loss event or similar event	Page
Qatar Government 2023	A "Total Loss Event" is the total loss or destruction of, or damage to the whole of, the lease assets or any event or occurrence that renders the whole of the lease assets permanently unfit for any economic use and (but only after taking into consideration any insurances or other indemnity granted by any third party in respect of the lease assets) the repair or remedial work in respect thereof is wholly uneconomical	Page 34
Islamic Development Bank 2018	The Wakeel's appointment can also be terminated in certain other circumstances but in particular, the Wakeel's appointment as Wakeel may be terminated without notice upon the occurrence of any of the following events (each an IsDB Event). However, the occurrence of an IsDB Event will also be a Dissolution Event allowing the Delegate, at its option to declare (or shall declare upon written request of Certificateholders representing not less than one fifth in principal amount of the relevant Series of Trust Certificates for the time being outstanding) the Trust Certificates of the relevant Series to be immediately due and payable. (a) the IsDB fails to pay an amount under the Wakala Agreement, the Guarantee, the Purchase Undertaking Deed, any Repurchase Agreement, any Sale Agreement or any other Transaction Document to which it is a party; (b) the IsDB fails to perform or observe any of its covenants and/or obligations or is in breach of any of its representations and warranties in each case under the Wakala Agreement or under any other Programme Document or Transaction Document to which it is a party in any material respect and such breach has a material adverse effect; (c) the IsDB repudiates any Programme Document or Transaction Document to which it is a party or does or causes to be done any act or thing evidencing an intention to repudiate any Programme Document or Transaction Document to which it is a party; (d) at any time it is or will become unlawful or contrary to its Articles of Agreement for the IsDB to perform or comply with any or all of its obligations under the Programme Documents or Transaction Document or any of the obligations of the IsDB under the Programme Documents or Transaction Document are not or cease to be legal, valid, binding and enforceable; (e) the IsDB temporarily suspends or temporarily terminates its operations or intends to temporarily suspend or temporarily terminate its operations	Page 106

In the case of a loss event or other events presented above, the certificates should be redeemed at their dissolution distribution amount that is the aggregate outstanding face amount of the certificates plus all and unpaid accrued periodic distribution amounts in respect of these certificates. These amounts might be satisfied in full by one or more takaful or insurance policies, or a guarantor (if any).

> Consequently, there is no risk for the certificateholder that the assets belong to them at the end of the transaction. The risk of the transaction is mainly a credit risk towards counterparties (or its guarantor, if any) involved in the transaction rather than a risk towards the assets.

Other than the loss events presented above, there are no other early dissolution events except for Qatar Government 2023 and Islamic Development Bank 2018, for which there is an optional earlier dissolution (prepayment option).

Sukuk name	Extract from the prospectus	Page
HM Treasury UK Sovereign Sukuk PLC	There are **no early dissolution events/events of default included in the conditions** (i.e. certificateholders are not entitled to require early payment of the dissolution distribution amount should the trustee, DCLG and/or HMT fail to comply with their respective obligations under the transaction documents and the certificates)	Page 13
Saudi Electricity Co. 2022	Other than as a result of the occurrence of a dissolution event, a tax event or a change of control, the **trust will not be subject to dissolution, and the certificates will not be redeemed, prior to the scheduled dissolution date**	Page 29
Qatar Government 2023	Other than as a result of the occurrence of a total loss event or a dissolution event or a total loss event, **the trust will not be subject to dissolution, and the trust certificates will not be redeemed, prior to the scheduled dissolution date**, unless redeemed pursuant to the optional dissolution right	Page 17
Islamic Development Bank 2018	Other than as a result of the occurrence of a Dissolution Event or as a result of an Optional Dissolution (see below), **the Trust will not be subject to dissolution and the relevant Trust Certificates will not be redeemed prior to the Maturity Date** (as defined in the relevant Final Terms)	Page 24

10.3.3 Prepayment Options

The sukuk issued by the Qatar Government 2023 includes an optional dissolution right before the scheduled dissolution date. This corresponds to a prepayment as the certificateholders will be paid earlier. The option is at the discretion of the obligor. Also, the Islamic Development Bank 2018 legal provisions include an optional dissolution right before the scheduled dissolution date. However, as stated in the prospectus, the existence of the option depends on the series of certificates. Thus, according to IFRS 9 B4.1.11(b), a contractual term that permits to prepay the principal amount of the instrument before maturity with a prepayment amount that substantially represents unpaid amounts of principal and profit on the principal amount outstanding as well as a reasonable additional compensation fee would not conflict with the SPPP criterion.

IFRS 9 B4.1.11 The following are examples of contractual terms that result in contractual cash flows that are solely payments of principal and interest on the principal amount outstanding:

(a) . . .
(b) a contractual term that permits the issuer (i.e. the debtor) to prepay a debt instrument or permits the holder (i.e. the creditor) to put a debt instrument back to the issuer before maturity and the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, **which may include reasonable additional compensation** for the early termination of the contract; and

Therefore, for an instrument issued at par, the following contractual terms for the prepayment do not conflict with the SPPP criterion:

- Prepayment at par plus accrued profit.
- Prepayment at par plus accrued profit plus any reasonable prepayment fee/charge.

Sukuk name	Extract from the prospectus	Page	Conclusion
Qatar Government 2023	Other than as a result of the occurrence of a total loss event or a dissolution event or a total loss event, the trust will not be subject to dissolution, and the trust certificates will not be redeemed, prior to the scheduled dissolution date, unless redeemed pursuant to the optional dissolution right	Page 17	Option dissolution amount X corresponds to a payment at the par plus accrued profit. This does not conflict with SPPP requirements Option dissolution amount Y is at least equal to option dissolution amount X. Consequently, the prepayment option at the end of the transaction is at least equal to the par plus accrued profit. This does not conflict with the SPPP criterion In the case the option dissolution amount Y exceeds the option dissolution amount X, this rate will prevail It corresponds to the Treasury rate that means the prevailing yield of US Treasury notes (market rate) with a maturity equal to the optional dissolution date, plus 50 basis points. Consequently, as it is a rate at the market plus a reasonable penalty of 50 basis point, this does not conflict with the SPPP criterion
	"Optional Dissolution Amount X" means, in relation to the trust certificates in respect of a series at a particular time, an amount equal to the aggregate of the following: (a) the aggregate face amount of the trust certificates; plus (b) all accrued but unpaid periodic distribution amounts (or any part thereof) relating to all Trust Certificates; plus (c) an amount equal to any outstanding services charge amount relating to the lease assets, provided that an invoice has been submitted in accordance with clause 5.3 of the servicing agency agreement	Page 22	
	"Optional Dissolution Amount Y" means, in relation to the trust certificates in respect of a series at a particular time, an amount equal to the aggregate of the following: (a) the sum of the net present value of all remaining periodic distribution amounts (but excluding that	Page 23	

(continued)

Sukuk name	Extract from the prospectus	Page	Conclusion
	portion of the any period distribution Amounts that is actually due and paid on the optional dissolution date) and the scheduled dissolution amount discounted to the optional dissolution date on a semi-annual basis at the treasury rate for all trust certificates plus 50 basis points; plus (b) an amount equal to any outstanding services charge amount relating to the lease assets, provided that an invoice has been submitted in accordance with clause 5.3 of the servicing agency agreement		
	"**Optional Dissolution Exercise Price means, the greater of the Optional Dissolution Amount X and the Optional Dissolution Amount Y**"	Page 23	

Only the sukuk of Qatar Government 2023 includes a prepayment option that pay, at minimum, the par value plus accrued profit at the initial rate of the contract. It could be also paid at par plus accrued profit at the US Treasury bond rate plus a penalty of 50 basis points that is considered a reasonable penalty. **As a result, the prepayment feature does not conflict with the SPPP criterion.**

10.3.4 Late Payment

According to the analysis conducted for each sukuk, the certificates continue to accrue profit until the dissolution date following the default on payment of periodic distribution. As long as late payments continue to generate profit at the contractual rate and those sums are still due, then it would not question the SPPP criterion. However, the important question here is how this profit is accruing post an event of default and what mechanism is used to address this issue from a Shariah requirements perspective. Late payment charges should not incorporate a profit margin or any element of lost opportunity cost from a Shariah perspective, otherwise it is an interest charge. Below is a summary of the analysis conducted on the sukuk sample regarding late payment.

Sukuk name	Late payment	Page	Conclusion
HM Treasury UK Sovereign Sukuk PLC	The Certificates will cease to be eligible to earn Periodic Distribution Amounts from the Scheduled Dissolution Date	Page 9	Certificates continue to earn periodic distribution until the dissolution date
	The "Total Loss Reimbursement Amount" shall be the aggregate of: (i) the outstanding aggregate face amount of the certificates; (ii) all accrued but unpaid periodic distribution amounts relating to the Certificates up to but excluding the last day of the 30 day period following the occurrence of the Total Loss Event;	Page 33	
Saudi Electricity Co. 2022	8.3 Cessation of Accrual No further amounts will be payable on any certificate from and including its due date for redemption, unless default is made in payment of the dissolution distribution amount in which case periodic distribution amounts will continue to accrue in respect of the certificates in the manner provided in this condition 8 (Periodic Distributions).	Page 47	Certificates continue to earn periodic distribution until the dissolution date.
Qatar Government 2023	14. Dissolution events Non-Payment: default is made by the lessee in the payment of any rental under the lease agreement, or default is made by the purchaser in the payment of any exercise price under the purchase undertaking, as the case may be, and (in each case) the default continues for a period of at least thirty (30) days; or	Page 37	Certificates continue to earn periodic distribution until the dissolution date
	8.3 Cessation of Accrual No further amounts will be payable on any trust Certificate from and including its due date for redemption, unless default is made in payment of the dissolution amount in which case periodic distribution amounts will continue to accrue in respect of the trust certificates in the manner provided in this condition 8 (such amount to be the additional dissolution amount).	Page 33	
Islamic Development Bank 2018	Unless otherwise specified in the relevant final terms, the return accumulation period during which a dissolution event occurs will be adjusted to represent the period from and including the	Page 47	Certificates continue to earn periodic distribution until the dissolution date.

(continued)

Sukuk name	Late payment	Page	Conclusion
	immediately preceding periodic distribution date (or the issue date, as the case may be) to but excluding the dissolution date (or, if later, the date on which the applicable periodic distribution amount is actually paid), and the corresponding periodic distribution amount shall be adjusted accordingly and paid on such dissolution date (or, if later, the date on which the applicable periodic distribution amount is actually paid).		

Therefore, this late payment feature of the sukuk would not conflict with the SPPP criterion.

10.4 Conclusion

This Chapter examined the International Financial Reporting Standard 9 (IFRS 9) from a technical perspective in relation to sukuk (commonly known as Islamic certificates) in light of the most common and widely used sukuk instruments in the Islamic finance industry. As part of this technical analysis of IFRS 9 application to sukuk, some contractual clauses that are embedded in the various structures of sukuk were identified and analysed. The analysis examined the compatibility of such Islamic finance instruments with IFRS 9. It also considered whether cash flows are compliant with the Solely Payments of Principle and Profit (SPPP) tests according to IFRS 9. As was highlighted, the objective of IFRS 9 is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The conclusion of our technical analysis of IFRS 9 application to sukuk is summarised below based on the main considerations for the contractual basis of the sukuks.

Features Linked to Default

Most sukuk structures are non-recourse instruments to the trust. The certificateholders have only recourse to the trust assets related to their series of certificates. However, the analysis concluded that the certificateholders are exposed to a counterparty risk rather than a risk towards the assets. Consequently, this does not conflict with the SPPP criterion.

Features Linked to the Returns on the Certificates "in the Normal Course of Business"

The sukuk certificates usually pay a fixed or floating rate of return over the life of the certificates (periodic distribution amount). This corresponds to interests in a conventional bond or loan. At the dissolution of the trust, the certificateholders are paid at the face value of the certificates (plus all accrued and unpaid periodic distribution amounts, if any). This corresponds to the principal amount in a conventional loan. Also, there is no upside risk; as the certificateholders do not benefit from any surplus of the trust assets.

Features Linked to a Prepayment Due to Specific Events

Specific events cover events such as termination of activity of one party to the contract, destruction of the leased assets. The certificates are to be paid in the same condition than in the normal course of business.

Features Linked to a Prepayment Option

Sukuk that includes a prepayment option that pays, at minimum, the par value of the certificates plus accrued profit at the initial rate of the contract, does not conflict with the SPPP criterion. It could also be paid, e.g., at par plus accrued profit at the US Treasury bond rate, plus a penalty of 50 basis points, which is perceived as being a reasonable charge in the sukuk market. It is a different matter, however, to discuss whether such a charge is compliant with Shariah, and if not; how it can be adjusted in a Shariah acceptable manner.

Features Linked to Late Payment

In case of late payments, the certificates continue to earn periodic distribution at the initial rate agreed in the contract. Late payment charges, however, should not incorporate a profit margin or any element of lost opportunity cost from a Shariah perspective, otherwise it is an interest charge.

For the purposes of the analysis of IFRS 9 application to sukuk, I applied the accounting principle of substance over form and a technical analysis of the contractual characteristics of various sukuk issuances, while bearing in mind Shariah rules and requirements. Having provided this comprehensive technical analysis of the application of IFRS 9 to sukuk, next chapter would address the key issues in relation to the preparation and components of the ICAAP (Internal Capital Adequacy Assessment Process) document for Islamic financial instruments and its operations. So, stay tuned to another exciting and interesting analysis in the next chapter.

Chapter 11
Internal Capital Adequacy Assessment in IFIs

11.1 Introduction

I have discussed in the previous chapter (Chap. 10) the International Financial Reporting Standard 9 (IFRS 9) from a technical perspective in relation to its application to the most common and widely used financial instruments for issuing sukuk in the Islamic finance industry. As part of this technical analysis of IFRS 9, I have identified some contractual clauses that are embedded in sukuk structures and analysed whether cashflows are compliant with the Solely Payments of Principle and Profit (SPPP) tests according to IFRS 9. Having established in previous chapters the accounting and reporting requirements for IFIs, this Chapter analyses how the outcome of our earlier analysis and discussion is incorporated by IFIs in preparing key documents required by financial regulatory authorities. Those documents set out how an IFI operates within a regulatory framework, ensures its capital requirements are adequate for its operational model and how it manages its associated risks.

With regulators now employing Pillar 2 and the Internal Capital Adequacy Assessment Process (ICAAP) to accelerate the changes mandated by Basel III, banks are under pressure to integrate their Pillar 1 and Pillar 2 processes to create a consistent and unified approach and limit regulatory costs. However, given banks' widely varying and continually evolving approaches, the disparities in their risk-related results, and regulators' discretionary powers to interpret the depth and content of Pillar 2 requirements, the current situation is fraught with uncertainty. This also impacts IFIs as its operating approach, risk profile and financial impacts are not fully aligned with its conventional counterpart. Thus, IFIs would be required to tailor their ICAAP to provide a true reflection of their requirements and business impact. Even worse, different practices by national regulators carry some risk of further inconsistencies and may create an unlevel playing field.

To help IFIs navigate through these ambiguities, I provide in this Chapter and the next chapters that follow (Chaps. 12 and 13) an analysis of the ICAAP practices of IFIs and my own experience and involvement in preparing and tailoring the ICAAP

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_11

for Islamic banks and its implementation. The analysis will help IFIs understand current practices and serve as a guidepost to the widespread adoption of leading practices that are adopted for Islamic finance. As Basel III is implemented, most IFIs will be more constrained by a shortage of regulatory capital than by any lack of economic capital (indeed, economic capital will be available). At present, however, some IFIs find that economic capital ratios are the greater constraint on their capital. It is estimated that new regulatory practices under Pillar 2 will drive about 30 percent of the full Basel III effect due in 2019. Based on the analysis presented in this Chapter, most Islamic banks' ICAAPs can benefit substantially from a greater connection between internal risk and capital models (the focus of the past few years) and simple, effective, and transparent management processes that are in accordance with Shariah principles.

To help create this connection, IFIs should ensure close involvement of senior managers including its Shariah compliance function in the formulation of risk strategy and governance of the risk function. This would also require creating a "dashboard" of critical metrics that help IFIs translate its risk appetite into operational, Shariah conduct, regulatory risk limits that frontline risk managers will use and not ignore. Furthermore, IFIs should achieve closer alignment of capital planning and corporate strategy to ensure that they achieve the best possible use of their capital without compromising their Shariah governance. In risk and capital modelling, IFIs need to enhance stress testing and scenario analysis that include Shariah non-compliance risks, where an understanding of the "going concern" and "gone concern" concepts, and the important trade-offs involved, is essential. Then to ensure its relevance, IFIs should regularly revisit the approach to modelling material non-Pillar 1 risk types, such as business risk, reputational risk, and others, where there is not yet a common standard.

The emphasis on ICAAP has implications for IFIs and their regulators and for the larger financial system. Apart from accelerating an industry-wide capital shortage, new practices under Pillar 2 and ICAAP may give rise to an unlevel playing field across jurisdictions. Because Pillar 2 is principles-based rather than rules-based, it is subject to national supervision, which carries a risk of inconsistent interpretations and regulatory uncertainty. In light of Basel III and its complexities, some institutions are already changing the "lens" they use to guide the bank, switching from an economic to a strictly regulatory perspective. But this may well weaken the bank's internal risk-management practices and yields non-accurate findings or financial triggers.

The final version of Basel II, which was published in 2006, lays out a three-pillar approach to risk and capital management for banks. Pillar 1 outlines a complex set of definitions, processes, and formulas to calculate minimum regulatory capital requirements. Pillar 3 mandates the disclosures that banks must make to provide investors and the public with full transparency. Pillar 2, describes the mandatory processes for both banks and regulators to fulfil the capital adequacy requirements. All banks including Islamic banks have to conduct an ICAAP to demonstrate that they have implemented methods and procedures to ensure adequate capital resources, with due attention to all material risk. Regulators, on the other hand, have to conduct a Supervisory Review and Evaluation Process (SREP) to assess the soundness of a

bank's ICAAP and take any appropriate actions that may be required. The ICAAP supplements Pillar 1's minimum regulatory capital requirements; it considers a broader range of risk types and the bank's risk and capital-management capabilities.

At the centre of most banks' ICAAP is their internal risk models that IFIs should factor their exposure as well to Shariah non-compliance risk. These models often calculate capital requirements that are lower than the regulatory minimum because of diversification effects and other adjustments that can be explicitly considered in internal models. By law, banks cannot undercut the regulatory minimums. More often than not, however, the ICAAP may result in higher capital requirements, for two main reasons: a broader range of risks is covered compared with Pillar 1 definitions, and banks' SREP often reveals inadequacies in banks' risk and capital management that must be covered with higher charges. Therefore, most Islamic banks try to underestimate the impact of Shariah non-compliance stress testing as that may put some extra capital requirements on them. In most cases, IFIs do not reflect in their ICAAP the values and advantages that would distinguish them as Islamic banks with fully asset-backed portfolio, prudent approach and an additional layer of governance. Their approach, in many cases, lacks the depth in articulating how they could benefit from that in possibly reducing their capital requirements and be able to justify this approach.

In 2008–2009, however, the near-financial meltdown of the banking sector revealed that the shared focus on Pillar 1 came at a significant cost. The worst of these costs was that Pillar 1 tended to significantly underestimate both market and counterparty risk in trading books ironically, something that could be observed in the sophisticated internal models some banks created for their ICAAP. Furthermore, even now, Pillar 1 does not consider some risks, such as business risk (the risk that a business will be materially altered or even rendered unviable through a shock or other change, as happened to the securitization and structured-finance businesses during the crisis), concentration risk, liquidity risk, and reputational risk, all of which proved to be substantial during the crisis. As a result, Basel Committee on Banking Supervision (BCBS) issued a new set of rules (Basel III) to address the shortcomings in the measurement of credit and market risk, that builds on its earlier framework (Basel II). The main focus of Basel III is to strengthen Pillar 1, by adding substantial new requirements for capital, liquidity, and funding. But Basel III was expected to take several years to phase in, and in an effort to drive change faster, regulators have been focusing more intently on Pillar 2 and ICAAP.

Many banks' methods and models performed poorly in the financial crisis; some banks even switched off their internal models due to lack of reliability and performance. And long-established value-at-risk (VAR) systems approved by regulators were shown to be of limited use, as they did not anticipate extreme volatility or lacked certain risk types such as basis risk (the risk associated with imperfect hedging, when a mismatch occurs between the asset to be hedged and the underlying asset of the derivative) or market-liquidity risk as articulated in McKinsey white paper report in 2011. All this has given banks pause. The model-based approach is not expected to go away, of course; models will be continually improved and will play a big, ongoing role in the detection of risks and the development of a specific risk management

strategy that incorporates in-depth particular risk factors associated with IFIs. But banks and regulators alike believe they should be supplemented with effective, simple, and transparent management processes. How should they do it? To address this issue, this Chapter navigates through this matter to provide a practical guide for IFIs. It provides an insight on how ICAAP should be prepared, its components and required analysis in the context of Islamic finance and IFIs. The Chapter concludes by offering some insight into the challenges facing IFIs and other aspects related to the ICAAP, such as stress testing which is fully covered in Chap. 13.

11.2 ICAAP Preparation Methodology

Banks use various processes to produce their regulatory capital assessment. Those processes and approaches would vary based on the size, structure, operational framework and other factors. Some of the small to medium size IFIs use a five-point approach for their regulatory capital assessment, which are shared by all banks regardless of size. The components of this approach are:

(a) Pillar 1 capital requirements which are derived from the IFI's assessment of the Capital Requirement for Credit Risk, the Capital Requirement for Operational Risk and the Capital Requirement for Market Risk. The last two risks i.e. operational and market would include assessment of impact of Shariah non-compliance risk as one of the key operational risks for Islamic banks.
(b) Pillar 2A represents the internal assessment of the risks that are inadequately covered or not covered under Pillar 1. The evaluation of the additional risks under Pillar 2A is carried out according to the relevant PRA (Prudential Regulation Authority) regulations, the CRD (Capital Requirements Directive) and the CRR (Capital Requirements Regulation).
(c) The minimum regulatory capital is derived from the calculations an IFI performs by adding the Pillar 1 and Pillar 2A requirements using business projections set out in the IFI's strategic or business plan. The regulatory capital is then proposed to the regulatory authority by means of the ICAAP as an internal capital assessment.
(d) Undertaking relevant and appropriate stress testing to assess the incremental capital (in the form of buffers) that an IFI would require to cover losses incurred should these stresses materialise.
(e) These calculations should then be assessed by management of the IFI to determine whether there is any duplication and/or over estimation of the capital requirements based on these calculations and the extent of conservatism in them. The board of directors should then assess the appropriateness of the methodology, assumptions and approach used in this calculation in approving the minimum regulatory capital for the IFI before it is submitted to the regulator.

Having summarised the process above, I provide a full explanation of this capital assessment process in the coming sections of this Chapter.

11.2.1 Approach to Calculating Pillar 1 and Pillar 2

The approach to calculating Pillar 1 capital requirements is derived from the IFI's assessment of the Capital Requirement for Credit Risk, Operational Risk and Market Risk (Pillar 1 Capital Requirement). Each one of those risk has its own calculation. The calculations for the Capital Requirement for Credit Risk are usually derived by using the Standardised Approach (SA). While the calculations for the Capital Requirement for Operational Risk are derived by using the Basic Indicator Approach (BIA) using historical audited data for previous years. The Pillar 1 market risk requirement would apply if the IFI operates a trading book or has any derivatives.

Pillar 2A, on the other hand, represents the IFI's internal assessment of the risks that are inadequately covered or not covered under Pillar 1. The evaluation of the additional risks under Pillar 2A is carried out according to the relevant regulations, the Capital Requirements Directive (CRD) and the Capital Requirements Regulation (CRR). Under this category IFIs should capture specific Shariah non-compliance risks that would have impact on capital that would be unique to IFIs, such as the risk of sharing losses in equity-based assets financing when the customer is not at fault of breach of the legal terms. Also, capital and liquidity requirements for using specific Islamic financial instruments, such as *Mudaraba* or *Musharaka* financing.

The ICAAP presents the IFI management's views on Pillar 2A add-ons to determine its appropriateness, and to compare the total Pillar 1 and Pillar 2A assessment with the most recent regulatory capital guidance, which incorporates Individual Capital Guidance (ICG) of a minimum amount of capital of Risk Weighted Assets (RWAs) plus an amount to be held as a fixed add-on for Profit Rate Risk in the Banking Book (PRRBB). The Pillar 2A assessment considers the wider risk environment within which the IFI operates and the impact on its Pillar 2A assessment. The assessment would considere the following additional risks:

- Credit and counterparty risk
- Credit concentration risk
- Additional market risk
- Liquidity risk (including any additional risks because of the Shariah governance requirements)
- Additional operational risk (any additional risks because of the Shariah governance requirements)
- Residual risk
- Securitisation risk (including any additional risks because of the Shariah governance requirements for the assets securitisations)
- Strategic and business risk
- Sharia non-compliance risk
- Governance risk
- Risk of excessive leverage
- Pension obligation risk (when work place pension is a regulatory and legal requirements)
- Group risk

- Reputational risk (including any additional risks because of the Shariah governance requirements)

The assessment of the capital add-ons would set out what IFIs have considered and why e.g. it is prudent for it to apply capital add-ons for one or more of the risk categories included above. This assessment would be then evaluated and challenged by the regulator.

11.2.2 Capital Buffers

In addition to Pillar 1 and Pillar 2A capital requirements, an IFI is required to hold additional capital buffers consisting of the CRD IV Combined Buffer and the regulator buffer. The CRD IV Combined Buffer consists of the following:

- Systemic buffers: This comprises the Global Systemically Important Institutions (G-SII) buffer and the Systemic Risk Buffer (SRB). These buffers would not be applicable at the moment to IFIs due to their size and marginal impact on the global economy.
- Countercyclical buffer (CCyB): This is usually set by the regulator for each country based on requirements of each country. For instance, this buffer was set at 0% for the UK by the PRA in 2016.
- Capital Conservation Buffer (CCoB): This buffer is being phased in from 1 January 2016 (at 0.625%) increasing up to 2.5% by 2019 and possibly increasing further thereafter.

IFIs should performe its own assessment of the capital buffer it requires in light of its stress test results. The capital buffer is set to provide sufficient cushion to enable an IFI to continue to meet the Overall Financial Adequacy Rule even in adverse circumstances, after allowing for realistic management actions. Subject to variations, an IFI own assessment of the capital buffer required is derived by taking the maximum difference between the year-on-year movement in capital resources and requirements from the stress testing results. This would then result in the capital buffer required of £xx million equal to xx% of RWAs.

11.3 ICAAP Requirements and Capital Resources

As part of the IFI's 5-year strategic plan and annual budgeting process, an IFI's capital position and requirements is assessed to ensure the IFI has sufficient capital resources for the projected balance sheet growth. According to the Overall Pillar 2 rule, a firm must have in place sound, effective and comprehensive strategies, processes and systems to assess and maintain on an ongoing basis the amounts, types and distribution of financial resources, own funds and internal capital that it

considers adequate to cover the nature and level of the risks to which it is or might be exposed; the risk in the overall financial adequacy rule; and the risk that the IFI might not be able to meet the obligations in Part Three of the CRR in the future. (PRA Rulebook for CRR firms—Internal Adequacy Assessment Process—3.1).

For example, the PRA's (the UK prudential regulator) threshold conditions are the minimum requirements that firms must meet at all times in order to be permitted to carry on the regulated activities in which they engage. They refer to a bank's obligations in terms of legal status, location of offices, conducting business in a prudent manner, suitability and effective supervision. The conditions are outlined in detail in (The PRA's approach to banking supervision, June 2014).

The main common assumptions underlying an IFI's base case scenario for its ICAAP assessment, i.e. the business plan are as follows:

- Constant risk-weighting calculations used throughout the planning period, based on current methodology.
- Organic growth of assets, based on steady growth of existing product lines.
- Total financing assets increase, and total assets increase by the end of the planned period.
- Benchmark (e.g. LIBOR or Bank of England base rates) increase assumptions over the assessed period, usually 5 years.
- Diversification of funding base through the issue of structured funding product and securitisation planned.
- Consistent cost drivers, based on current cost structure adjusted for business volumes.
- The IFI assumptions for regulatory capital increase requirements during that period, and how this capital requirement would be met, e.g. Additional Tier 1 or Tier 2 capital instruments.

Table 11.1 sets out the template for the regulatory capital requirements and resources based on the assumed IFI's business plan, both under the PRA's and the IFI's own assessment.

The main findings and highlights of the ICAAP assessment example in Table 11.1 are as follows:

- Regulatory capital required is equal to the IFI's ICG under the regulatory assessment because the total capital required as assessed by the IFI (B in the table) is not higher than the ICG set by the regulator in its guidance.
- The IFI's CET1, Tier 1 and the total capital ratios exceed the minimum regulatory requirements of 4.5%, 6% and 8% respectively.
- The requirement for Pillar 2 is met in the example by a similar combination of CET 1 (75%) and Tier 2 (25%) capital. All buffer requirements are fulfilled by CET 1 capital.
- The IFI's leverage ratio exceeds the minimum regulatory requirement (3%).

This ICAAP assessment concludes that the IFI has more than adequate capital to meet the regulatory requirements resulting from its strategic plan set for five years. The IFI would also satisfy the Overall Pillar 2 Rule and the regulator's Threshold Conditions.

Table 11.1 Example of regulatory capital requirements and resources

£ ′m	2018 Actual	2019	2020	2021	2022	2023
Total available capital	117.5	130.5	164.2	198.7	231.0	260.0
Key capital indicators	Under applicable regulatory assessment					
Pillar 1	54.3	66.3	83.9	101.8	119.5	136.9
Pillar 1 and pillar 2A	77.4	94.4	119.6	145.1	170.3	195.1
PRRBB capital add-on	10.0	10.0	10.0	10.0	10.0	10.0
Total ICG (A)	87.4	104.4	129.6	155.1	180.3	205.1
Capital buffer	18.8	22.9	29.0	35.2	41.3	47.3
Total ICG + capital buffers	106.2	127.3	158.6	190.3	221.6	252.4
Surplus capital over ICG + capital buffers	11.3	3.2	5.6	8.4	9.4	7.6
Surplus capital as a % of ICG + buffers	10.6%	2.5%	3.5%	4.4%	4.3%	3.0%
Surplus capital as a % of RWAs	1.7%	0.4%	0.5%	0.7%	0.6%	0.4%
	Under IFI's own assessment					
Pillar 1	54.3	66.3	83.9	101.8	119.5	136.9
Total ICG (B)	70.2	85.6	108.4	131.5	154.3	176.8
Capital buffer	18.4	22.4	28.4	34.5	40.4	46.3
Total ICG + capital buffer	88.6	108.	136.8	165.98	194.7	223.1
Surplus capital over ICG + capital buffer	28.9	22.5	27.4	32.8	36.3	36.9
Surplus capital as a % of ICG + buffer	32.7%	20.9%	20.0%	19.7%	18.6%	16.5%
Surplus capital as a % of RWAs	4.3%	2.7%	2.6%	2.6%	2.4%	2.2%
CET1 ratio	17.1%	15.6%	13.2%	12.5%	12.2%	12.1%
Tier 1 ratio	17.1%	15.6%	13.2%	12.5%	12.2%	12.1%
Total capital ratio	17.3%	15.8%	15.7%	15.6%	15.5%	15.2%
Leverage ratio	7.9%	6.8%	6.1%	5.7%	5.6%	5.6%

This example demonstrates that the IFI has sufficient capital to cover its current ICG and Capital buffers prescribed by the regulator throughout the five-year projection period. This analysis is based on assumed existing ICG of 11.4% of RWAs and PRRBB add on of £10 m (amounting to 12.87% of RWAs). The IFI's surplus capital over the ICG and capital buffers ranges between 2.5% and 10.6% of the ICG requirement (including the capital buffers).

The IFI's ICAAP assessment of its own capital requirements over the same period derives an ICG of 10.33% of RWAs with no PRRBB add-on. The IFI's own assessment results in surplus capital over the ICG and capital buffer ranging from 16.5% to 32.7% of the ICG requirement (including the capital buffer). This would not be automatically accepted by the regulator as the position of the IFI for its ICAAP assessment and there would be some challenges raised by the regulator about its accuracy.

11.4 Risk Governance and Management Framework in ICAAP

IFIs are required to set out their governance structure and risk management and governance framework including the role of the Shariah Supervisory Committee in that framework in their ICAAP assessment. The overall responsibility for the management of risk within an IFI lies with its board of directors, who usually delegate this responsibility to the executive management with the authority to maintain day to day control of the management of risk as set out in the IFI's corporate governance structure. The corporate governance sets out the IFI's overall governance structure, including committees responsible for risk management established by the IFI. An effective and transparent risk governance structure is fundamental to ensure an efficient risk management framework in IFIs. While the IFI's corporate governance structure and the terms of reference of the board and its committees are documented in the corporate governance document, the ICAAP document should provide an overview of the roles and responsibilities of the board, the Shariah Supervisory Committee, the different committees and functions in relation to risk management and risks arising from the ICAAP.

In relation to risk management, the board of an IFI is responsible for establishing the risk appetite and for creating the environment and the structures for risk management to operate effectively. The board of an IFI should, as a minimum, consider in evaluating its system of internal control:

- the nature and extent of downside risks acceptable for the IFI to bear within its business;
- the likelihood of such risks becoming a reality;
- how unacceptable risks should be managed;
- approve changes to the risk appetite and any acceptance of the risk;
- the IFI's ability to minimise the probability and impact on the business;
- the costs and benefits of the risk and control activity undertaken;
- the effectiveness of the risk management process; and
- the risk implications of board's decisions.

These duties also include the responsibility for bringing together within the ICAAP the risk management framework and the financial disciplines of business planning and capital management to assess:

- the significant risks to which it is exposed;
- the adequacy of its risk assessment and management; and
- the capital resources it needs to hold against its risk exposures over its planning horizon.

The board performs its role in relation to managing risk and approving the ICAAP through approving and monitoring the IFI's risk appetite; considering stress scenarios and agreed mitigants; and identifying longer term strategic threats to the IFI's operations. This risk management framework (RMF) requires the board to consider

and agree the IFI's risk appetite in the context of strategic goals. This means an ongoing assessment of risks, risk appetite and controls within the RMF so that potential issues are identified and addressed. Through the three lines of defence model the board and executive management ensure that the standards in the RMF are adhered to.

11.4.1 Governance of ICAAP

An IFI's governance framework and RMF should ensure that IFI's risk identification, the assessment of the risk profile, the business strategy, the risk strategy, the risk appetite framework and the internal processes are all consistent with each other. The ICAAP then represents the IFI's assessment of the capital required against each of the material risks it faces. The identification of risks that feed into the ICAAP (the risk appetite) starts with the development of the IFI's strategic plan, particularly while deciding the strategic drivers and strategic initiatives. The IFI's risk strategy further ensures that its approach to risk management is aligned to the business strategy, key projects and operational development. To ensure that the risk strategy and the RMF takes into account the IFI's capital position, the level at which the IFI's risk appetite for excess capital will be maintained e.g. 3% or 5% above the minimum regulatory requirements, with an early warning indicator (EWI) in place to track this internal buffer. The level of risk appetite is established based on a sensitivity analysis to the IFI's strategy and an assessment of the mark-to-market position of the IFI's liquid assets. This would provide assurances that such risk appetite is adequate to withstand changes in the business as usual conditions.

In addition to this metric around capital adequacy, the RMF should contains risk appetites for the level 1 risks identified by each IFI, the number and nature of each may vary subject to the IFI's size and operational structure, and metrics to measure adherence, as well as triggers and limits to facilitate monitoring. In this way, the RMF ensures that losses do not exceed the capital allocated to the risks facing the IFI in the market it operates in.

11.4.2 Risk Management Framework

The RMF is the overarching risk framework, primarily aimed at the IFI's senior management and those with direct responsibility for managing risk within the IFI. It highlights the IFI's commitment to improve its capability to manage risks and emphasises the importance of incorporating the management of risk into everyday thinking, behaviours, processes and business practices. The RMF should be designed to support the IFI in managing the risks in a way which is consistent with its risk appetite framework and Shariah requirements for its operation. The responsibility for ensuring effective implementation and monitoring of compliance

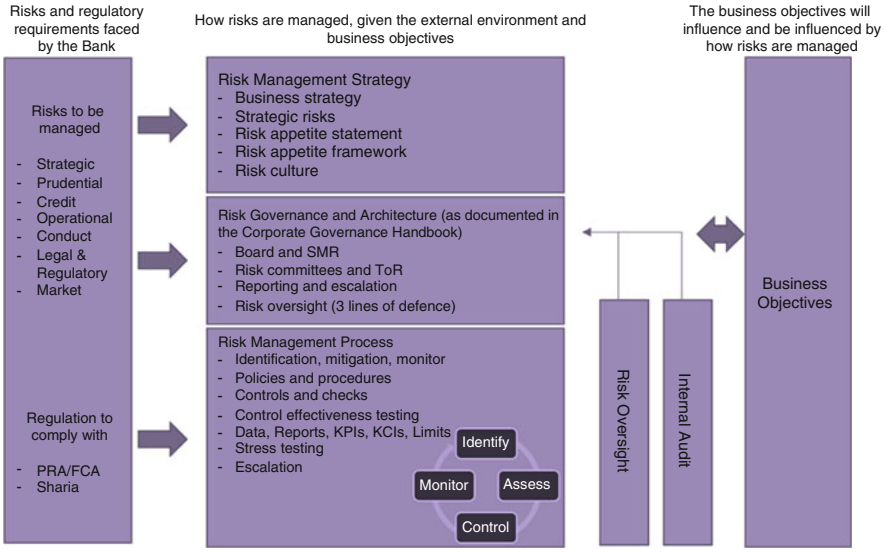


Fig. 11.1 ICAAP risk management framework for IFIs (based on the European regulatory framework)

with the RMF lies with the relevant executive or risk committee responsible for the RMF. Therefore, the risk management strategy defines the IFI's approach to risk management and how much risk the IFI wants to take (risk appetite). The risk appetites for the IFI are separately documented and approved by its board on an annual basis. The risk governance and risk architecture outline the communication, escalation and decision-making approach regarding risk as depicted in Fig. 11.1. The risk management process and protocols cover the risk management activities, policies and procedures undertaken by the IFI, and includes assessment and measurement of risk.

The IFI's risk strategy outlines what it intends to achieve regarding its approach to risk and risk management and how this links to the business strategy, key projects and operational development. A core part of the risk strategy is determining which risks are faced by the IFI. The risk appetite framework supports the risk strategy and defines which risks are considered material and relevant to the IFI and the level to which the IFI is willing to take these risks. The identification of Shariah non-compliance risk may vary from an IFI to another based on the market it operates in and the type of financial products it offers, retail, commercial or investment, which underpins the Islamic finance instruments used and its sophistication. The risk appetite of the IFI should be communicated to all business functions and applied in decision-making relating to the formulation of policies, prioritisation of projects and service delivery.

An overarching risk appetite statement for IFIs can be defined as "to maintain a financially secure and prudently run IFI that conducts its activities in a manner that is

Fig. 11.2 Risk strategy and risk appetite

compliant with Shariah and its regulatory framework, to serve the interests of customers in its chosen target market". Then the overarching risk appetite statement is supported by individual appetite statements for each level 1 risk, which are regularly monitored by senior management as shown in Fig. 11.2. This ensures that adherence to the level 1 risk appetites should ensure adherence to the overarching risk appetite.

Each level 1 risk appetite statement, as shown in Table 11.2 is linked to the overarching risk appetite statement as follows:

- Financially secure is achieved through providing products to customers which meet their specific needs and enables the IFI to generate a fair and sustainable profit (Strategic Risk/Financial Risk/Credit Risk).
- Prudently run is achieved through ensuring there is sufficient capital and liquidity at all times, and the IFI is supported by a sound control environment (Prudential Risk/Market Risk/Operational Risk).
- Compliant and reputable is achieved through ensuring the IFI's activities and culture are consistent with an excellent customer experience in a Shariah and regulatory compliant manner (Operational Risk/Conduct Risk/Shariah non-Compliance Risk/Legal and Regulatory Risk).

For each Level 1 risk, the IFI should also define a principle, explaining the rationale for the risk appetite; an outcome, explaining what adherence to the appetite is designed to achieve; a more detailed set of Level 2 and Level 3 risk categories/descriptions, where appropriate; the relevant functional areas and reporting committees; the specific metrics used to measure adherence to the appetite, together with triggers, limits and capacity levels and rationale. Moreover, an IFI should also outline how the appetite/metrics are supported by KRIs/KCIs which are monitored at a functional and sub-committee level but escalated up to the management chain as

Table 11.2 Principal level 1 risks in IFI

Principal risk	Definition
Strategic risk	*Business risk*: The risk of failing to achieve the strategic vision and objectives due to internal or external events arising from developing a strategy that does not enhance 'shareholder value' and/or fails to achieve the initiatives in the agreed strategic plan due to changing or flawed assumptions, or from external macro-economic or political events which are outside the control of the IFI.
	Financial risk: The risk of failing to achieve the financial objectives, leading to reduced financial security and sustainability arising from the poor management of or poor quality/volatile earnings and costs.
Prudential risk	*Capital risk*: The risk of financial failure arising from a lack of capital which may impact the current or future financial stability of the IFI.
	Liquidity and funding risk: The risk of financial failure arising from liquidity impact the current or future financial stability of the IFI.
Market risk	The risk of reductions in earnings and/or value, through financial or reputational loss, from unfavourable market movements.
Sharia non-compliance risk	The risk of a loss in earnings, value or reputation due to products and services being non-compliant with Shariah or major Shariah breaches.
Credit risk	The risk of financial loss and/or value as a result of the failure of a party with whom the IFI has contracted to meet its obligations or for collateral held to realise its value.
Operational risk	*Operational risk—Systems*: The risk of reductions in earnings and/ or value, through financial or reputational loss, from inadequate or failed internal processes, people or systems and third-party failure.
	Operational risk—People: The risk of reductions in earnings and/ or value, through financial or reputational loss, from inappropriate staff behaviour, resourcing structure or health & safety issues. Loss can also be incurred through failure to recruit, retain, train, reward and incentivise appropriately skilled staff to achieve business objectives and through failure to take appropriate action as a result of staff underperformance.
Legal and regulatory risk	*Regulatory risk*: The risk of financial loss, regulatory censure and/or reputational damage from failing to adhere to applicable laws, regulations and supervisory guidance.
Conduct risk	The risk of treating customers unfairly and delivering inappropriate outcomes that leads to customer detriment or not achieving a positive experience to the customer. The risk may arise from different activities of the IFI including product design and development; sales process; post sales process; and from the overall culture and governance framework.

appropriate. KCIs and KPIs are allocated to the most granular level of risk, which may be at level 2 or level 3. All level 1, 2 and 3 risks should be reported on a regular basis to the executive responsible for managing and monitoring them. All KPI and KCI metric are RAG rated against approved tolerance levels or appetites (at level 1 risks). Any red or amber rated metric is reported to the relevant management risk committee responsible for the oversight of that risk. For example, if the board limits were deemed to be at risk of being breached, this would be a trigger for a formal escalation process for management to remedy the IFI's capital position and actions would be taken to manage and mitigate this risk.

The RMF document would describe in detail the different processes and accountabilities involved throughout the risk cycle, from identifying, assessing, controlling, monitoring risks to communicating and learning around risk management across the organisation. An IFI should ensures its risk exposure is within risk appetite and that risk appetite is set within risk capacity. The KPIs include forward looking risk-based indicators, which use either forecast information to model future risk exposures or current and historic data to make a prediction of risk in the short to medium term in relation to the risk area. Each KRI is assessed as relating to one of the IFI's key risk categories, this provides a link to the IFI's ICAAP. The functional KCIs are indicators of the effectiveness of the controls which are used to mitigate the key risks identified and support the KRIs. The Control Performance Indicators (KPIs) reflect each department's control performance self-assessment of the operation of the key controls in their area. These are reported on a monthly basis to the accountable line management and relevant risk committee.

11.4.3 Risk Management of Shariah Non-compliance Risk

Islamic banking offers people the same banking products and services as conventional banking except that it operates in accordance with the rules of Shariah. It is restricted to Shariah compliant transactions, which exclude, among others, those involving usury (*riba* or interest), alcohol, pork, gambling and speculation. Any such Shariah compliant products, transactions or instruments are structured on various Islamic finance principles, where any such transactions should be asset-backed and should meet Shariah rules identified for each instrument. Those requirements should be clearly reflected, due to its importance, in the ICAAP assessment of IFIs. The basic principles underpinning Islamic banking are the sharing of profit and loss and the prohibition of "*Riba*" or usury. The borrowing/lending on interest relationship does not exist in Islamic banking; any financial transaction should be based on an asset that involves trade. Ownership of wealth, in the Islamic financial system, is not an end in itself, but a means to provide a decent life for a person, their family and for society at large.

IFIs are required to be overseen by a Shariah Supervisory Committee (SSC). IFIs should also have a Shariah compliance department which advises the IFI on the application of Shariah, and to ensure that the operations and activities of the IFI on a daily basis comply with Shariah. The Shariah compliance department would continually and independently monitors the IFI's operations to ensure full compliance with Shariah. It also conducts regular Shariah compliance audit and reports directly to the SSC. The SSC is an independent body of recognised and specialised scholars in Shariah and in particular, in the Islamic commercial law. IFIs use the services of its SSC to adapt its business practices to the ethical teachings and principles of the Shariah. As the operations of Islamic banking are most often confronted with conditions not faced before, part of the task of the SSC and the internal Shariah

compliance representative is to issue informed Islamic opinions and *fatwas* allowing IFIs to deal with the situation in a Shariah compliant manner.

IFIs should demonstrate in their ICAAP assessment how Shariah non-compliance risks are managed with appropriate controls and whether it would be required to consider additional Pillar 2. If such a risk was to materialise, the IFI would need to consider, among other, the following impacts which could be resulted from the loss of IFI's Shariah credibility:

- Loss of customer deposits with potential run on the IFI;
- Repayment of fees or profit earnt that is not generated in accordance with Shariah;
- Loss and termination of asset products; and
- Reputational damage to the IFI and loss of new business.

Some of the controls and mitigating actions to mitigate these impacts that IFIs could include in their ICAAP assessment are:

- Having product launch policies and procedures in place and requiring Shariah compliance sign offs before its launch or for any changes made;
- Undertaking annual and regular Shariah compliance audit reviews;
- Operating under a strong Shariah governance and control framework;
- Setting a risk appetite of zero tolerance for Shariah breaches;
- Embedding people training and development with induction programmes to create a Shariah governance aware environment;
- Diversifying the customer base to ethically minded customers;
- The SSC and the Shariah compliance function would endeavour to allay fears if Shariah non-compliance is perceived and would ensure proper communication with stakeholders and the community.

Then after setting out its analysis of the Shariah non-compliance risks and its management processes and controls in the ICAAP assessment, an IFI would conclude whether it should consider additional Pillar 2A capital is required for Shariah non-compliance risks or not and the rationale for its assessment as illustrated above.

11.5 Risk Appetite Monitoring and Reporting

Risk reporting is provided at Level 1, against the defined risk tolerances, appetites and capacities, whilst the individual risk tolerances for the IFI's level 2 and 3 risks are detailed in the IFI's risk reporting document or software. All KPI's and KCI's are monitored and reported monthly, to track the level of risk exposure against risk appetite and tolerance. Breaches of risk appetite and level 2 risk tolerances are reported to relevant executive management and board, and consideration is given to increasing controls, accepting the risk at a defined level for a period to monitor the impact going forward; or introducing additional mitigating actions. Some Shariah non-compliance risks or breaches, however, may not be tolerated due to its impact, which would have consequences on the IFI. Thus, most if not all IFIs set their risk

appetite for Shariah breaches at zero tolerance. A cost benefit assessment will be undertaken where there is an increase in controls. The inherent risk before controls and residual risk after controls is managed (through oversight and challenge) by relevant governance committees.

11.5.1 Risk Monitoring

Management of IFIs should perform risk assessments for all key processes and document these within departmental control performance indicator assessments each month. Detailed policies and procedures and key controls are implemented to mitigate the risks identified. Monitoring of key controls should also be undertaken to ensure they operate effectively. Risk, breach, issue and incident reporting records are completed by employees should new or changes to existing risks, arise or controls not operate effectively. Risk reporting is provided to highlight the following:

(a) IFI's performance against the key metrics defined for each level 1 risk appetite and informed of any risk tolerance breaches or red rated KPI and KCI on a quarterly basis. Where actual risk levels exceed the Risk Appetite or risk tolerances, the board of directors would consider whether it should reconsider the Risk Appetite that has been set and the impact of any potential capital add-on that may be required.
(b) Appraising operational and compliance reports on the IFI's performance against the key metrics defined for each level 1 risk appetite and informed of any risk tolerance breaches or red rated KPI and KCI on a quarterly basis. Where actual risk levels exceed the Risk Appetite or risk tolerances, it should consider whether it should reconsider the Risk Appetite that has been set and the impact of any potential capital add-on that may be required.
(c) Reviewing the KPI's and KCI's relevant to the credit, financial and market risks. The information enables the IFI's management to assess whether risks are being managed and controls are operating effectively. The information also enables the IFI to assess whether its strategy is being implemented within Risk Appetite and risk materiality levels. Where actual risk levels exceed the Risk Appetite and risk materiality levels, management of the IFI should consider the need to enhance key controls or whether other risk management techniques are required.

11.5.2 Three Lines of Defence Approach to Risk Management

11.5.2.1 First Line

The first line of defence includes the following groups of stakeholders of an IFI the board, executive management, all employees including contractors and third parties.

The responsibilities of the board and executive management are described above. All employees of the IFI are responsible for risk identification and management and should:

- understand their accountability for risks (including Shariah requirements) impacting their area;
- understand how they can enable continuous improvement of risk management;
- understand that risk management and risk awareness are a key part of the IFI's culture, including specific behaviour, which would not be consistent with principles of Shariah conduct and conduct risk; and
- report systematically and promptly to senior management any perceived new risks or failures of existing control measures.

11.5.2.2 Second Line

The second line of defence in an IFI would oversee management of the level 1 risk categories. The following business functions oversee the IFI's level 1 risks:

- Operational risk;
- Compliance;
- Shariah compliance;
- Financial crime unit ("**FCU"**) covering fraud and money laundering;
- Retail and commercial credit risk;
- Liquidity, market and wholesale credit risk; and
- Prudential and regulatory risk.

The role of the risk management function includes the following:

- designing and operating the risk management function for the IFI;
- defining policy and strategy for risk management for approval;
- primary champion of risk management at strategic and operational level;
- building a risk aware culture within the IFI including appropriate education;
- establishing internal risk policy and structures for business units;
- designing and reviewing processes for risk management;
- co-ordinating the various functional activities which advise on risk management issues within the IFI;
- challenge effectiveness and validity of risk assessments;
- developing risk response processes, including recovery and resolution plans; and
- preparing reports on risk for the board and the stakeholders.

Moreover, compliance with Shariah is critical to any IFI's operations. The Shariah compliance department implements processes and procedures to ensure that the business conducted by the IFI is done in accordance with Shariah principles. The role of the Shariah compliance function includes both second and third line accountability. From a second line perspective, Shariah compliance performs the following tasks:

- To supervise and monitor the IFI operations on a day to day basis to ensure Shariah compliance.
- Signing off all policies, procedures, third party and counterparty agreements and marketing collateral;
- Product development; to provide and/or sign off product's structure, fees, pricing, product concept and definition papers as well as to review legal documentations in accordance with Shariah requirements;
- Delivering Shariah compliance training; Shariah governance and Islamic finance induction training to be delivered to all employees and specific tailored training as and when required; and
- Shariah non-compliance risk management; to identify, assess, mitigate and monitor Shariah non-compliance risks.

11.5.2.3 Third Line

This third and final line of defence is covered by internal audit and the Shariah compliance functions within the IFI. Internal audit is an independent function that reports into the board audit committee and whose role includes the following:

- focusing the internal audit work on the significant risks, as identified by management, and auditing the risk management processes across the IFI;
- providing assurance on the management of risk;
- providing active support and involvement in the risk management process;
- facilitating risk identification/assessment and educating line staff in risk management and internal control; and
- co-ordinating risk reporting to the board audit committee.

The role of the Shariah compliance function is unique to IFIs, which covers both second line of defence (Shariah compliance) and third line of defence (Shariah audit), therefore there is an argument to consider Shariah governance in IFIs as a Fourth Line of defence. Its role as a s third line of defence includes conducting Shariah compliance audit reviews across the IFI to ensure the operational areas have adhered to Shariah requirements on a day to day basis. The results of these reviews are reported to the Shariah Supervisory Committee (SSC), an independent governing body of the IFI.

11.6 Conclusion

I have discussed in this Chapter the approach to preparing the ICAAP assessment for IFIs, its components, governance and risk management framework. IFIs should define a series of metrics regarding operational risk in terms of systems, transactions, financial, liquidity, credit, market, Shariah and people. Shariah governance and possible risks associated with its governance framework should be an integral part

to the operations of an IFI and its ICAAP assessment, rather than an add-on. IFIs are required to assess its RMF in regard to operational risk, which is designed to support the business in managing the risks in a way that is consistent with the IFI's risk appetite framework. This determines how much risk an IFI wants to take as set by its board, which is then reviewed annually.

The RMF for IFIs is underpinned by a comprehensive set of policies and protocols, which are used to establish the boundaries along with the accompanying management of operational risk that is supported by the Three Lines of Defence model. Each business function of the IFI would implement the policies through the documentation of procedures and controls which are independently assessed and tested through a programme of reviews performed by governing functions of the IFI, such as Shariah compliance and audit, regulatory compliance and internal audit. The control framework over operational risk should be regularly strengthened under revisions that are implemented within the updated RMF. This includes further enhancements to existing KPIs and KCI's as well as reporting and clearly aligning to relevant risks and risk categories facing or could be faced by the IFI.

Stress testing of key risk drivers for IFIs is very important and should form part of its ICAAP assessment, therefore, I will be discussing stress testing in a dedicated chapter (Chap. 13). The status of KPI's and KCI's against defined tolerance metrics is reported regularly under a risk and control self-assessment (RCSA) process to the relevant risk committee, which enables monitoring of operational risk performance across the IFI. In addition, a suite of dashboards for ongoing monitoring would provide a valuable tool on a daily basis to enable the proactive monitoring of operational performance across all key operational processes and risks. One of the key risk appetite metrics, as was discussed, monitored by the board of the IFI is the financial cost of operational risk events and Shariah breaches, which are identified within a defined incident/risk reporting and escalation process to the relevant governance committee. Then for each risk event escalated to the relevant governance committee the financial impact (both internal and external), as well as the conduct risk impact, should be assessed and reported. Hence, this process and the data collected on operational losses underpins the adequacy of the IFI's Pillar 1 operational risk capital requirement and inform its ICAAP assessment.

I will be maintaining the same theme as we move smoothly to discuss, in the next chapter, other important documents that should be prepared by IFIs and submitted to the regulator. Next chapter addresses the liquidity adequacy assessment process, recovery options and resolution strategies of IFIs.

Chapter 12
Liquidity Assessment, Recovery and Resolution Strategies in IFIs

12.1 Introduction

I have discussed in the previous chapter (Chap. 11) the regulatory capital assessment for IFIs based on their Shariah governance requirements. We have also discussed how Shariah governance would influence the capital requirements and the ICAAP assessment in the context of Islamic banking. This Chapter builds on the analysis of Shariah governance application to the capital adequacy assessment to address the liquidity assessment for IFIs. It analyses relevant aspects and provides a comprehensive guide of the key considerations, components and influencing factors for liquidity assessment in relation to Shariah governance in IFIs. It also provides insights into the assessment of recovery and resolution plan for IFIs and applicable considerations for both. The Chapter is divided into three main sections, first it discusses the internal liquidity adequacy process, its importance and its components in relation to IFIs. In the second and third sections it discusses the recovery and resolution plan respectively, their framework and building blocks.

The recent financial crisis has shown the fundamental importance of liquidity and funding for credit institutions, as insufficient liquidity poses an immediate threat to their continuity. One of the main lessons learned is that their liquidity risk management has to ensure their ability to fulfil their payment obligations at all times, even under adverse conditions.[1] Accordingly, the internal liquidity adequacy assessment process (ILAAP) plays a key role in the risk management of credit institutions. As regards significant institutions established in the Single Supervisory Mechanism (SSM), the ECB (European Central Bank) expects the ILAAP in accordance with the provisions of Article 86 of the Capital Requirements Directive (CRD IV)2 to be

[1]Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176, 27.6.2013, p. 338).

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_12

prudent and conservative. Article 86(1) CRD IV: "Competent authorities shall ensure that institutions have robust strategies, policies, processes and systems for the identification, measurement, management and monitoring of liquidity risk over an appropriate set of time horizons, including intra-day, so as to ensure that institutions maintain adequate levels of liquidity buffers."

The ECB is of the view that sound, effective and comprehensive ILAAPs comprise a clear assessment of the risks to their liquidity, and have well-structured risk governance and risk escalation processes based on a well-thought out and thorough risk strategy which is translated into an effective risk limit system.[2] In the ECB's view, a sound, effective and comprehensive ILAAP is based on two pillars: the economic and the normative perspectives. Both perspectives are expected to complement and inform each other. This is important for IFIs as they should also consider any implication related to their operations in addressing Shariah non-compliance risk, impact and effectively managing Shariah governance and its impact on the IFI's liquidity assessment. It should be noted that IFIs are prudent by nature of their operational model and Shariah governance, which is an advantage over their conventional counterpart.

The ILAAP is also an important input factor in the SSM Supervisory Review and Evaluation Process (SREP). It feeds into SREP assessments of business models, internal governance and overall risk management, and into the risk control assessments of risks to liquidity and the Pillar 2 liquidity determination process. In the SREP, it is acknowledged that a good ILAAP reduces an institution's and its supervisors' uncertainty concerning the risks that the institution is or may be exposed to. It gives supervisors an increased level of confidence in the institution's ability to continue by maintaining an adequate liquidity buffers and stable funding and by managing its risks effectively. This requires the institution, in a forward-looking manner, to ensure that all material risks are identified, effectively managed (using an appropriate combination of quantification and controls) and covered by a sufficient level of high-quality liquidity buffers.

The purpose of the ECB Guide to the ILAAP (the Guide) is to provide transparency by making public the ECB's understanding of the liquidity risk requirements following from Article 86 CRD IV. The Guide is aimed at assisting institutions in strengthening their ILAAPs and encouraging the use of best practices by explaining in greater detail the ECB's expectations on the ILAAP, leading to more consistent and effective supervision. The Guide deduces from the CRD IV liquidity risk provisions seven principles that will be considered, inter alia, in the assessment of each institution's ILAAP as part of the SREP. These principles will also be referred to in discussions with individual institutions in the supervisory dialogue. The Guide does not substitute or supersede any applicable law implementing Article 86 CRD IV.

[2] Article 86(1) CRD IV: "Competent authorities shall ensure that institutions have robust strategies, policies, processes and systems for the identification, measurement, management and monitoring of liquidity risk over an appropriate set of time horizons, including intra-day, so as to ensure that institutions maintain adequate levels of liquidity buffers."

Insofar as the Guide is not in line with applicable law, the applicable law prevails. The Guide is intended to be a practical tool that is updated regularly to reflect new developments and experience. Consequently, the principles and expectations laid out in this Guide will evolve over time. It will be reviewed in the light of the ongoing development of European banking supervision practice and methodologies, international and European regulatory developments and, for example, new authoritative interpretations of relevant directives and regulations by the Court of Justice of the European Union. This Guide follows a principles-based approach with a focus on selected key aspects from a supervisory perspective. It is not meant to provide complete guidance on all aspects relevant for sound ILAAPs.

The implementation of an ILAAP that is adequate for an institution's particular circumstances remains the responsibility of the institution. The ECB assesses institutions' ILAAPs on a case-by-case basis. In addition to this Guide, and in addition to relevant Union law and national law, institutions are encouraged to take into account other ILAAP-relevant publications from the EBA and international fora like the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB). Furthermore, institutions should take into account all ILAAP-related recommendations addressed to them, e.g. recommendations resulting from the SREP, such as those related to sound governance, to risk management and to controls.

12.1.1 Scope

This Guide is relevant for any credit institution which is considered to be a significant supervised entity as referred to in Article 2 (16) of the SSM Framework Regulation. The ILAAP scope is determined by Article 109 CRD IV. This means in particular that a parent institution in a Member State and institutions controlled by a parent financial holding company or parent mixed financial holding company in a Member State shall meet the ILAAP obligations set out in Article 86 CRD IV on consolidated basis or on the basis of consolidated situation of that financial holding company or mixed financial holding company. Given that Article 86 CRD IV is a minimum harmonisation provision, and its transposition has therefore been dealt with in different ways in different Member States, a wide variety of ILAAP practices and requirements for the supervision of SIs exist in participating Member States.

The ECB, together with the national competent authorities (NCAs), has developed ILAAP principles. The objective of these principles is to ensure high standards of supervision by developing common methodologies in this important supervisory area. The ILAAP is, above all, an internal process, and it remains the responsibility of individual institutions to implement it in a proportionate and credible manner. Pursuant to Article 86 CRD IV, ILAAPs have to be proportionate to the nature, scale and complexity of the activities of the institution. This point is very important for IFIs to tailor such assessment according to their operating model. The principles developed in this Guide shall only serve as a starting point in supervisory dialogues with credit institutions. Therefore, they should not be understood as comprehensively

covering all aspects necessary to implement a sound, effective and comprehensive ILAAP. It is the responsibility of IFIs to ensure that its ILAAP is sound, effective and comprehensive duly taking into account the nature, scale and complexity of their activities. So, after providing this background, as a reader (academic, regulator, accountant or a practitioner) you will be thinking, what does that mean for IFIs? The answer to this question is not a straightforward one, but I assure you it will be addressed in the remaining sections of this Chapter.

12.2 Liquidity Risk Drivers and Liquidity Resources

IFIs are responsible for the effective management of their liquidity and funding risks and the general approach taken by the regulatory authority to supervision is based on the following key principles:

- an IFI must have adequate levels of liquidity resources;
- an IFI must maintain a prudent funding profile; and
- that the IFI comprehensively manages and controls liquidity and funding risks.

The main purpose of this liquidity assessment is to set out the approach to liquidity, funding management, risk management and for IFIs to document and demonstrate overall liquidity adequacy in their ILAAP.

12.2.1 Key Points for Assessing Liquidity in IFIs

(a) The ILAAP is the IFI's internal assessment of its liquidity requirement; it is not restricted to the regulatory requirement, it should provide a full and sound assessment that goes beyond the regulatory principles.
(b) The ILAAP is the record that documents the IFI's approach to liquidity and funding management and demonstrates overall liquidity adequacy.
(c) The approach to liquidity and funding risk management should also be covered; a series of KRIs and limits should be used to effectively monitor adherence to the IFI's risk appetite and tolerances.
(d) All applicable liquidity risks to the operation of an IFI should be adequately identified and assessed as part of the ILAAP.
(e) Liquidity and funding management is fully embedded within the IFI's planning process to ensure that these are measured in the medium to long term.
(f) An IFI should be able to meet its overall liquidity adequacy rule (OLAR). *A firm must at all times maintain liquidity resources which are adequate, both as to amount and quality, to ensure that there is no significant risk that its liabilities cannot be met as they fall due.*

An IFI's liquidity and funding risk appetite is defined in its OLAR, which may contain, but not limited to, the following metrics:

(a) To hold sufficient liquidity, to ensure a survival period against the peak cumulative outflow over the next 90 days under the IFI's modelled worst case internal stress scenario. This is called the surviving horizon.
(b) To maintain the Liquidity Coverage Ratio (LCR) greater than 100% plus any applicable Pillar 2 add-ons as discussed in Chap. 11;
(c) To maintain the Net Stable Funding Ratio (NSFR greater than 100% at all times) or as justified by the IFI's internal assessment;
(d) To ensure no more than 25% of all assets are encumbered at any time, this is the standard practice in the market, however, some IFIs may opt to adopt a different level;
(e) To maintain a finance to retail deposit ratio no less than 85% and no greater than 115%, this is also the standard practice in the market, however, some IFIs may opt to adopt a different ratio;

Each of the metrics suggested above would act as a binding constraint on the IFI's risk appetite and failing to meet any of them will result in the IFI being outside of its risk appetite. The liquidity and funding risk appetite should be reviewed at least annually. The ILAAP should be designed according to the size, complexity and systemic presence of the IFI, and is proportional to those factors while remaining a comprehensive assessment of the liquidity, funding and risk management.

12.2.2 Liquidity Risk Drivers

Liquidity risk drivers' assessment evaluates the IFI's liquidity needs in both the short and medium term; this is done by assessing the liquidity requirement arising from each of the IFI's key risk drivers. Examples of key risk drivers are: wholesale funding risk, non-marketable asset risk, retail funding risk, cross currency funding risk, off balance sheet funding risk, marketable asset risk, net cash outflow risk, franchise risk, intra-month risk etc. The impact of the risk drivers on liquidity requirement would change month by month as the balance sheet composition of the IFI changes. Any changes to the assumptions underlying the risk drivers should be brought to the relevant governing management forum for validation and approval. In order to do that, IFIs should identify their internal liquidity risk limits and risk indicators to effectively manage their liquidity as shown below.

12.2.2.1 Key Risk Drivers' Limits

Liquidity risk driver	Liquidity risk limits and key risk indicators
Retail funding risk	• Maintaining adequate liquidity resources to meet retail funding outflow based on highest stress scenario requirement.

(continued)

Liquidity risk driver	Liquidity risk limits and key risk indicators
Wholesale funding risk	• Total wholesale funding not to exceed % (IFI should set the required level according to its exposure and internal assessment) of funding liabilities. • Maintaining asset encumbrance ratio to a maximum of % (IFIs should assess and set the required limit). • Operating within the maturity concentrations set in the wholesale funding risk management process. • Maintaining adequate liquidity resources to meet wholesale funding outflow based on highest stress scenario requirement.
Intra-day liquidity risk	• Maintaining a minimum of £million of liquidity at Nostro accounts to meet stress intra-day liquidity requirements.
Intra-30-day LCR liquidity risk	• Maintaining additional HQLA if required to survive intra-30-day LCR stress.
Cross-currency liquidity risk	• Ensuring no single foreign currency exceeds XX% of total assets of the IFI (definition of significant currency). • Maintaining £m limit for potential FX loss.
Off-balance sheet liquidity risk	• Maintaining an adequate level of liquidity resources to meet pipeline and undrawn requirements for the IFI's asset financing products, based on the highest stress scenario requirement.
Franchise-viability liquidity risk	• Maintaining adequate liquidity resources to meet franchise liquidity requirement for early withdrawals based on highest stress scenario.
Marketable asset risk	• Maintaining adequate liquidity resources to meet overall liquidity adequacy requirement, after taking into consideration haircuts and market price volatilities. • Regular repo or sale of assets undertaken by the IFI's treasury management process.
Non-marketable asset risk	• Maintaining excess liquidity resources to meet overall liquidity adequacy requirement, due to reduced inflow expectation.
Funding diversification risk	• Maintaining maximum of XX% of maturing customer's deposits within 3 months, as a % of total funding liabilities. • Maintaining a minimum NSFR of 100%. • Ensuring behavioural liquidity GAP remains below internal limits set by the IFI own assessment.

By following the above approach, which is considered the most common liquidity risks drivers, an IFI would be able to assess the liquidity risk impact over both a 30 day and a longer horizon. Subject to the IFI's business model some of the risk drivers could have material, little or no impact on the liquidity requirements of an IFI. IFIs should carefully consider how Shariah governance and the operations of their products would affect those identified risk drivers. The rationale for their treatment should be provided within the ILAAP e.g. the impact of equity-based financing products whether *musharaka* or *mudaraba* on liquidity of the IFI or the impact of equity-based wholesale deposits, such as *wakala* and *mudaraba* banking placements. This assessment should not be based on purely mathematical approach to each risk, but also applied a practical overlay so that the treatment ascribed matches the reality of how an IFI and its various business functions operate.

12.3 Liquidity Risk Assessment

IFIs should have sufficient liquidity to meet its risk appetite and OLAR at all times and this is achieved by carrying out a quantitative assessment of the liquidity risks against available liquidity resources. This can be done by using both the IFI's own internal stress scenarios and those prescribed by the regulator for the LCR. This assessment should be coupled by undertaking a qualitative assessment of the IFI's liquidity risks and the effectiveness of the liquidity risk management framework. Then looking ahead and making an assessment of the future liquidity risks and requirements and how they may be impacted by any changes to the IFI's asset or liability profile, funding plan and strategy, or external factors.

12.3.1 Liquidity Stress Scenario

Regulatory guidance provides some typical scenarios that IFIs should consider in their stress testing for liquidity, other scenarios relevant to the IFI operational model should be considered by its senior management with rationale. I address here in this section key pertinent issues to liquidity stress testing, as I have dedicated a full chapter (Chap. 13) to discuss stress testing in details. The typical scenarios for any stress testing are idiosyncratic, market-wide and combined.

Idiosyncratic scenario, an IFI is required to form a view about if the IFI deteriorates due to a stress event primarily on the IFI's survivability or unexpected deterioration of viability. This view could be in relation to what this possible event would be in the context of the operation of the IFI. For example, the impact on an IFI as a member of a bigger group or a stress event to its parent company, how media would possibly react and how this reaction is managed by the IFI to assure the market and its customers in order not to trigger a run on the IFI's liquidity. This assessment would measure the impact of the crunch point and how long this impact would last until its effect starts fading away.

Market-wide scenario, this scenario would assess market's view if the banking sector deteriorates due to stress events followed by negative media publicity. Media will focus on survivability of larger banks, so the impact of this scenario would be measured according to the IFI's size and weight in the market. Immediate disruption of the wholesale market, disrupting IFIs' ability to liquidate asset, other than via central bank. As a result, wholesale depositors would move deposits to banks with better credit rating or perceived as being safer. Economic downturn in the economy of the country of the IFI leads to higher arrears and default. This would also lead to a volatility in the benchmark rates used by IFIs to price their financial assets and products due to uncertainty in the economy. FX markets would be severely disrupted. Only major FX (USD, £, EUR) would be allowed as a risk management procedure, but uncertainty would lead to higher exchange rate volatility in those major currencies. Moreover, IFIs should also consider, as part of this scenario,

downgrades on most investment grade instruments by possibly up by a number of notches, which leads to severe volatility in market value, and low confidence in the sukuk market.

Combined scenario, this scenario considers a combination of the above two scenarios where IFI should assess the market view if the banking sector deteriorates due to stress events followed by negative media publicity. This is combined with the view of the IFI also deteriorates due to a stress event primarily on its survivability or unexpected deterioration of viability. Impact to wholesale markets, FX, downgrades and default rates similar to market-wide scenario should be all assessed, and provisions are made by IFIs accordingly in terms of specific impact to their operational model as explained above. For example, commercial and retail financed assets that are equity-based financing and counterparty deposits of the same nature. Therefore, in undertaking the above stress test, IFI may rely on the LCR requirements which are based on the European Banking Authority (EBA)'s stress calculations, which are based on a combined scenario, or the requirements set by their national regulator. As such, the measurement of LCR Pillar 2 requirements are based on the IFI's combined stress scenario, limited to 30 days horizon.

12.3.2 Liquidity Stress Impact

The EU's LCR Delegated Act (DA) has proposed minimum outflow rates of 5–20% for four categories in its LCR calculation, reflecting expected withdrawal of the IFI's deposits base for 30 days in a combined stress scenario. Most, if not all, IFIs do not have sufficient stress data of their customers, however this could be achieved by analysing the historic customer activity and behaviour over the past few years to obtain behavioural withdrawal rates. The behavioural analysis would take into account whether customers have a contractual right for instant withdrawal or restricted withdrawal under the terms of the various financial products they have with the IFI. In that event, it would be assumed that the most extreme outflows would occur during an idiosyncratic stress as this will be limited purely to the IFI, and therefore customers looking to move their funds away would have plenty of alternative IFIs available to them. In a combined market wide and idiosyncratic stress, customers may look to reduce their balances below the level of any deposit guarantee scheme offered by a national authority of the IFI's country of incorporation, but it is unlikely, in that case, they move entire balances to another provider that is also facing stressed conditions.

If the LCR withdrawal rate are considerably higher than the observed customer behavioural outflow in a 30-days horizon, no additional requirement would be deemed necessary in the form of a Pillar 2 add-on. Otherwise, if the LCR withdrawal rate is lower, the IFI would be required to consider additional Pillar 2 add-on requirements. In that context IFIs should also consider the approach they take to mitigate any risk in relation to not meeting the expected profit on customers' deposit, and the options available to them to manage that risk in a Shariah compliant manner

as explained in Chap. 5, when the *mudarabah* principle was discussed. This would also impact the use of any profit stabilisation reserve held by the IFI for the benefit of its depositors.

The wholesale funding risk, on the other hand, is the risk that the access to secured and unsecured Shariah compliant funding is negatively impacted, manifested as a reduction in funding available, a reduction of the term for which the funds are offered or an increase in the cost of funding for IFIs. For LCR purposes an IFI may recognise 100% of contractual inflows (subject to any total inflow cap) and outflows for wholesale funding maturing within 30 days; against funding that is expected to roll over on maturity. As a result, after providing a robust behavioural analysis and rationale, an IFI could conclude that the LCR stress outflow is severe and hence no additional requirement is deemed necessary in the form of Pillar 2 add-on.

12.4 Inherent Funding Risk Assessment

It is necessary for IFIs to consider funding risks, as part of their ILAAP, associated with their operations and how they are monitored and managed. Measures such as the LCR and the IFI's stress tests focus more heavily on liquidity in a short-term period, ensuring that the IFI has sufficient resources to deal with a stress event. It is vital that an IFI also considers the medium and long-term impact on liquidity risk of its business strategy, covering valuation of risks to the stability of the funding profile; evaluation of market access; and evaluation of expected change in funding risks based on its business plans. Therefore, an IFI is also required to prepare a comprehensive funding plan mapping out available Shariah compliant funding sources and to include that in its business strategy.

12.4.1 Retail Funding

The strategy for raising funding is usually met by the acquisition of stable funding via retail liabilities, which are closely managed by IFIs with well-priced products to ensure meeting the expected profit and remaining compliant with the products' profit calculation and distribution methodologies from a Shariah perspective. This aspect would be guided by the Islamic finance principle that underpins the financial product. As such, an IFI's funding strategy should target a longer behavioural weighted average life to match the asset financing that it is underwriting, thus minimising the risk of maturity transformation. This should consider whether the net expected retail liabilities growth is lower or higher than asset growth, and any impact of structured or wholesale funding. There are at least four defined categories of deposits with associated outflow assumptions, depending on whether deposits are classified as low risk (categories 1 and 2) or higher risk (categories 3 and 4). Fixed

maturity deposits with a residual maturity of greater than 30 days may be excluded if there is a penalty for early withdrawal. While IFIs are not allowed to apply a penalty by wiping out all profit accrued on the deposit in the case of early withdrawal, they are allowed under Shariah to reduce the profit level to the lowest profit level payable on its applicable range of deposits. By doing that IFIs pays a minimum profit in the event of early withdrawal to their depositors, while retaining the remaining of the actual profit accrued.

Thus, IFIs could create a deposit model categorises that splits balances into appropriate outflow categories and the modelling is performed on a customer basis, through application of combinations of risk factors outlined in the DA (Articles 24–25). The outflow rates and the methodology applied by the IFI to derive the stressed outflows would provide an appropriate and reliable liquidity risk assessment data.

12.4.2 Wholesale Funding

Wholesale funding of an IFI is usually sourced from banking placements, central bank liquidity, corporate deposits and from issuing sukuk. IFIs should carefully assess their wholesale funding position and impact on their liquidity requirements and the ratio of their wholesale funding to retail funding from a behavioural perspective. For example, as part of this analysis IFIs should assess the contractual maturity of such wholesale placements, whether *wakala, mudaraba* or *murabaha*, in the context of any early deposit termination clauses imbedded in the contractual terms. This could have a severe liquidity impact on the IFI in the event of market stress. Therefore, IFIs would be required to regularly monitor their funding profile and its composition. It is recommended that to manage the risk of its funding profile, the funding should be primarily driven by retail funding as it is more stable and less influenced by a market shift or stress scenario than a wholesale funding. Also, ensuring that any early termination of *wakala, mudaraba* or *murabaha* deposits are balanced with other sources of funding, so it does not severely impact the IFI liquidity position. The balanced split between the retail and wholesale funding is recommended to be around 65%/35% respectively, this may vary slightly from an IFI to another.

12.4.3 High Quality Liquid Assets (HQLA)

The LCR (liquidity coverage ratio) is calculated in accordance with the EU Delegated Act on Liquidity (DA). The LCR reflects the IFI's stock of liquid assets held relative to the net stressed outflows over a 30-day period.

$$\text{Liquidity Coverage Ratio}\ (\%) = \frac{\text{Stock of High Quality Liquid Assets}}{\text{Net cash outflows over a 30-calendar day stress period}}$$

This assessment should ensure that the quality and type of assets held for inclusion within the IFI's HQLA, for inclusion within the LCR calculation, is in line with EBA and/or any applicable regulatory guidance. This process should be governed by an internal policy that sets the maximum exposure of the IFI per issuer with maximum tenors, volatility and concentration of its holdings. Limit on exposure and concentration risk of its assets should be set by country, region and counterparty limits. The requirements for HQLA are set out in Article 7 and 8 of the DA, it should be listed in a recognised exchange or in an active trading venue, tradable and sufficiently large to ensure that it is liquid. The market value of the HQLA can be easily determined as they are available e.g. via Bloomberg, and a network of brokers in the market, of which would hold trading inventories, and the assets are not encumbered and are immediately available.

12.5 Recovery Planning

The recovery plan defines the actions which would be taken to recover an IFI from a crisis that threatens viability and is triggered primarily by liquidity and capital events. This enables IFIs to continue as a going concern and avoid the need for resolution. The recovery plan would follow the requirements and guidelines of the regulator, e.g. in the case of the UK it is set out in Policy Statement 29/17, Supervisory Statement 9/17 ("Recovery Planning") and the recovery plan section of the PRA Rulebook. In preparing the recovery plan document a focus should be placed on the approach to risk indicators and the usability of the recovery document in a stress event. Its application should considere the IFI's size, risk profile and the complexity of its business model. An input from across the business functions and an in-depth review and challenge should be undertaken, prior to formal submission and governance. An impact assessment of the regulatory rules in relation to recovery planning should be followed carefully. Then, a comprehensive analysis of the key drivers of a potential stress to ensure a well-integrated Indicators framework, which includes EWIs, risk appetite and recovery invocation triggers. To achieve that end, a comprehensive MI should be available for operationalising the indicators framework and to monitor risks and the key trigger points of the recovery plan. IFIs need to undertake an in-depth analysis of each recovery option, as not all recovery options available for a conventional bank would be available to them due to Shariah requirements, and a clear and defined process in assessing the final list deemed effective and credible.

This list of options should carefully consider each option to be compatible with the Shariah governance requirements of the IFI. For example, IFIs would not be able to access funding lines from the money market or obtain liquidity from the central bank if this was not available in a Shariah compliant manner. The development of recovery plan scenario tests, as leveraged from the ILAAP and the ICAAP would need to be sufficiently severe but plausible, relevant to the IFI's business model, invoke the recovery plan and take the IFI to the point of near failure. Also, the analysis would include the recovery capacity ensuring sizeable benefits to liquidity and capital are feasible, consideration of the actual expected response to each scenario and to obtain assurance regarding the level of recoverability. Within that context the IFI would set out the approach to the recovery plan, including a fire drill test, procedures in respect of invocation and implementation of the communication plan and applicable processes.

IFIs should develop recovery plans that identify credible options to survive a range of severe but plausible stressed scenarios. This should be part of the good management of an IFI, not just a response to a regulatory requirement. The recovery plan should also cover governance and decision-making; the continuity of critical economic functions; the specification of trigger points to activate recovery options; and internal and external communications. In turn, an IFI's regulatory supervisor should assess the credibility of the IFI's recovery plan and, if necessary, require the IFI to amend its plan, hold additional capital or liquidity, or restructure its business in order to make the plan sufficiently credible.

A series of thematic reviews conducted by the European Banking Authority (EBA) have revealed inadequacies in some banks in the identification of core business lines and critical functions; the range of scenarios used by banks; governance arrangements; and the specification of recovery options. Similarly, the European Central Bank (ECB) and the UK Prudential Regulation Authority (PRA) have highlighted areas for improvement in banks' recovery planning, including in the content of recovery plans, the practical usability of plans, the governance and decision-making around preparing and activating recovery options, integrating plans with stress testing and risk management, preparatory measures and testing of plans, the identification of critical functions, and the coverage of material subsidiaries within group recovery plans.

Recovery (and resolution see Sect. 12.6) planning, as a regulatory response to the financial crisis of 2007/08, became one of the three main elements of the regulatory reforms directed at systemically important financial institutions, together with capital surcharges and more intensive supervision. In terms of international standards, new requirements for recovery and resolution planning were set out in the Financial Stability Board's (FSB) Key Attributes of Effective Resolution Regimes for Financial Institutions (first published in 2011), which in the EU were transposed into the Bank Recovery and Resolution Directive (BRRD)—this was finalised in 2014 for national transposition and implementation by January 2015. The BRRD requires banks to produce credible recovery plans to cope with a range of severe but plausible scenarios. It outlines the essential elements of a recovery plan, and gives supervisory authorities the powers to require banks to improve their plans if they are not

sufficiently credible. The BRRD extends the scope of recovery planning requirements to all EU credit institutions, but with the intention that a proportional approach be taken to how detailed and extensive each bank's recovery plan needs to be. There are some lessons that could be learned by other financial regulators outside the EU form this approach. While IFIs can follow this process, they should only consider recovery options that suit their Shariah governance framework.

In that regard, IFIs should consider a range of scenarios; develop a range of recovery options that would enable them to recover from certain shocks, in particular to preserve the continuity of any critical functions provided by the IFI; and establish a clear link between the scenarios, the trigger points that would require a decision to be taken on activating one or more recovery options, and the recovery options themselves. The plan should be subject to high standards of governance, documentation, testing and communications. The BRRD also requires supervisory authorities to be granted the powers to intervene if a bank's recovery plan is not credible. This includes powers to require a bank to improve its recovery plan; specify a fuller set of scenarios, triggers and recovery options; enhance its contingency plans and committed facilities; improve its resilience by holding more capital and liquidity; change its strategy or business model to reduce its risk profile; change its operational structure, for example to match more closely its business activities with its legal entities.

12.5.1 Governance of the Recovery Plan

An IFI's recovery plan is owned by the IFI itself (in contrast to a resolution plan which ultimately has to be owned by the resolution authority). The plan should be discussed and approved by the IFI's board (unitary or supervisory). Executive management should be responsible for preparing and testing the plan with main responsibility sitting with the CEO and the executive responsible for risk in the IFI. Management information should be reported to senior management and the board on early warning indicators and any breach of triggers. Clear decision-making should be in place for the activation of recovery options. The governance process should include validation and challenges regarding its credibility and suitability for the IFI. The plan should be clear about the available Shariah compliant options, e.g. it should not include options such as obtaining wholesale conventional loans, government bond or a funding line that is not compliant with Shariah. Thus, the IFI should seek Shariah sign off for its recovery options as part of the governance process.

12.5.2 Documentation of the Recovery Plan

The quality of documenting a recovery plan is emphasised in the regulatory guidance. An IFI's recovery plan should be supported by good documentation, data and

management information. The plan needs to be clear, well understood and capable of being activated by senior management collectively, not just by a small number of key individuals. It is a common mistake that the recovery plan is centred around the executives of the IFI, rather than the wider management. This approach would not ensure an appropriate activation of the plan. Furthermore, data and management information should identify when triggers are breached or are likely to be breached with early warning indicators in place.

12.5.3 Integration of the Recovery Plan

An IFI's recovery plan should be integrated with the IFI's strategic business model; risk management and business decision making processes; capital and funding planning; stress testing approaches and capabilities; and business continuity planning. With that respect, if there are limitations to e.g. the recovery options in the funding planning, the IFI should consider alternative sources and impact as Shariah compliant options of capital and funding raising could be very limited compared to its conventional counterpart. The recovery plan should also be integrated with the IFI's capital and liquidity assessments (ICAAP and ILAAP), overall risk management, including risk data aggregation and reporting.

12.5.4 Critical Functions

The scope of the recovery plan should include the recovery of the whole IFI group and its various critical business functions. Therefore, an IFI's recovery plan should identify its core business lines, critical functions and critical services; and the key legal entities and jurisdictions from which these are provided. For instance, many IFIs based in the Gulf states have legal entities in Europe as part of their banking group and vis versa. The recoverability of its other entities should be carefully integrated in the plan, taking into account the impact of the relevant regulatory framework and market that such critical functions are operating in. IFIs need to consider not only how recovery options might preserve the continuity of critical functions, but also the possibility that some recovery options might endanger this continuity. For systemically important banks (SIBs) the key issue here is to identify the critical functions that most need to be preserved because these functions are critical for financial stability and the real economy (KPMG 2017).

This in turn requires a focus on the critical shared services (whether outsourced or provided from within a banking group) on which these critical functions depend, and on how an IFI can maintain its access to financial market infrastructure in that event. For non-SIBs the focus on key functions reflects a risk-based approach to the supervisory assessment of recovery planning. The criticality of functions will therefore depend on: the nature of the function itself, the systemic importance of the IFI

supplying the function, the scope for rapid substitutability by other suppliers, the level at which criticality is assessed regional, industry sectors, national, and other countries in which a banking group operates. Critical functions are likely to include payments, custody, retail deposit taking and retail financing, specialist financing sectors (for example SMEs, industry sectors and regions), clearing and settlement, some wholesale market activities, and market-making in certain securities (KPMG 2017).

12.5.5 Scenario Testing

The overarching objective of a scenario testing is to devise sufficiently severe, but plausible scenarios that are relevant to the IFI's business model. They must invoke the recovery plan and take the IFI to the point of near failure. An IFI's recovery plan should be based on a range of specific, market-wide and systemic scenarios, and combinations of these. The scenarios should be severe but plausible and should cover both fast-moving and slow-moving events. The scenarios should include, but not be limited to, the scenarios used by the IFI for its stress testing (including both the IFI's own internal stress tests and stress tests set by regulatory authorities). An IFI should consider the potential impact of these scenarios on its: capital, liquidity, profitability, credit rating, the cost and availability of funding (including capital), risk profile, operational capacity, group-wide position, including material subsidiaries, its intra-group funding, critical functions, the key legal entities, businesses and jurisdictions in which these functions are located and finally its external counterparties.

The recovery options for each stress should be presented against a core set of recovery plan information and data and should be adjusted based on aspects most relevant and useful for the IFI operating and business model. The impact then is quantified in terms of CET1 and LCR provisions requirements for each scenario. All recovery options considered by an IFI should be feasible, credible and timely, supported by full analysis in terms of their impact, execution/implementation considerations and credibility analysis.

12.5.6 Triggers of the Recovery Plan

IFIs should assess their own triggers and establish indicator framework for monitoring such triggers. The key objective of the indicator framework is to ensure that the IFI is alerted to an oncoming stress with sufficient notice to implement and realise the benefits of any necessary recovery options. Thus, IFIs should develop a set of triggers and early warning indicators (EWIs) to highlight when recovery options might need to be activated. The most common trigger events which occur in IFIs failures are those which affect both liquidity and capital and erode these resources to a point of non-viability. In addition, these triggers could be supported by a range of early warning indicators; such as profitability, asset quality, market-based

and macro-economic indicators, internal forecast of future performance, loss of key staff and other triggers relevant to the IFI's business. The criteria for selecting the most relevant EWIs and overall suite of EWIs for IFIs would include both quantitative and qualitative measures, forward looking measures, being effective in a range of stressed situations, capable of being easily monitored and is clear when indicators have been breached.

To illustrate triggers relevant to IFIs, I would give the following example, a resignation of one or more Shariah scholars of the IFI's SSC would be a trigger warranting a serious risk of the viability of the IFI because of its practices and a material Shariah breach. Consequently, this would affect any new business, the IFI's liquidity position, retail and wholesale funding and redemption of its financing book. The legal case of Investment Dar and Bloom Bank is a clear example when Investment Dar claimed non-Shariah compliance of the *Wakala* agreement underlying the counterparty deposit. This was given as a reason in order not to pay back the amounts due to Bloom Bank. The English judge sought a subject matter expert's opinion from the Investment Dar's SSC, who confirmed that the *Wakala* agreement was signed off by them and is compliant with Shariah requirements. Also, more recently the issue of Dana Gas sukuk, where Dana Gas used unreasonably non-compliance with Shariah as a legal reason for defaulting on payments to the certificateholders on maturity.

12.5.7 Recovery Options

An IFI's recovery plan should include a range of measures that the IFI could take to restore its financial position (and market confidence in its standing) following an adverse shock. Therefore, it needs to identify credible options to enable it to survive a range of severe stressed scenarios, and to ensure that specific recovery options are in place to respond to each specific trigger point. The range of recovery options should not be limited to raising capital or other funding, but it should also include cost reduction (through lower bonuses and dividends, and reducing operational costs) and more radical options, such as restructuring and the sale of assets or businesses. With that respect it should factor requirements of such recovery options, e.g. issuing sukuk, private securitisation of some or all of its assets or obtaining Shariah compliant funding lines. Taking specific recovery options would not be automatic. Circumstances may dictate variations in practice. But an IFI should have identified a central case presumption of which recovery options would be activated in response to each trigger, and it should have in place clear escalation processes to decide which recovery options should be activated.

12.5.8 Testing, Feasibility and Updating

Although not all recovery options can be fully tested, an IFI should have processes in place to check, as far as possible, that its recovery options are credible and could be

activated successfully. This should include both scenario analysis and simulation-type exercises. IFIs should be clear about the feasibility of each recovery option, the time it may take to implement (e.g. the time issuing sukuk, securitisation or Additional Tier 1 capital instruments may take), the time it may take before the benefits materialise, potential obstacles to implementation, and any need for preparatory measures to facilitate the implementation of each recovery option (or the implementation of multiple recovery options at the same time). IFIs should analyse the impact of each recovery option, including not only its intended purpose, but the risk of any unintended consequences. This analysis should also include the feasibility and impact of undertaking multiple recovery options at once, inter-dependencies among recovery options, and the effectiveness and limitations of recovery options during a market-wide crisis. To ensure its relevance and applicability, an IFI should update its recovery plan annually, or after significant changes to its legal or organisational structure, business activities or its financial situation.

12.5.9 Communication

IFIs should also consider appropriate steps in terms of communication and implementation of the recovery plan, such as the expected hurdles, dependencies and preparation measures that could be applied. Therefore, the recovery plan should include plans for internal communication, external communication and keeping its supervisors including its SSC and other stakeholders informed in the event that a recovery option is activated.

12.6 Resolution Planning

A systemically important financial institution can be orderly resolved when, even if it fails, its operating subsidiaries can be stabilized and, if necessary, wound down in an orderly way. This wind down should be resolved without interrupting the critical services and operations that are essential to the continued stability and health of the financial system and economy, such as deposit-taking and payment services. Also, without extraordinary government assistance or any taxpayer support. I have discussed in the previous sections how IFIs can prepare their recovery plan and what they should consider. If all the many defences and recovery options against failure that an IFI has put in place are not enough to save it, the challenge shifts from avoiding failure to keeping that failure from causing financial contagion, contraction of credit and other harms to the financial system and economy. Thus, the second element of ensuring an IFI can be effectively unwound is for large, systemically important financial institutions to engage in extensive advance preparation and planning, which is generally referred to as resolution planning. The objective of resolution planning is to ensure that, if necessary, systemically important financial

institutions and even other financial institutions would be able to fail in an orderly manner, in other words, to be effectively resolved.

The key elements that a resolution plan is required to include are:

(a) a resolution strategy for how the IFI can be resolved in bankruptcy without government or other support in a way that would not create risk to the financial system as a whole;
(b) financial analysis of the IFI's capital and liquidity resources and financial needs during implementation of the resolution strategy;
(c) information about key aspects of the IFI, its interconnections with the financial system and its Key Operating Entities, businesses and systemic functions needed to establish and support the resolution strategy;
(d) assessments of the resolvability of the IFI and identification of possible barriers to the IFI's resolvability; and
(e) realistic, workable solutions to any barriers to successfully executing the resolution strategy or to the IFI's overall resolvability.

Successfully addressing these key elements results in a resolution plan that is feasible, practical and has been operationalized, meaning it can be executed in a crisis. To support the development, maintenance and continuous refinement of an effective resolution plan in which the IFI's clients, counterparties, regulators and the market can be confident, IFIs should establish a comprehensive Crisis Management Framework. As shown in Fig. 12.1, a Crisis Management Framework is designed around what could be called as the three pillars of the resolution plan: capital and liquidity resources, the financial resources necessary to successfully execute the resolution strategy; resolution strategy, the legal steps that would be taken to orderly resolve the IFI under applicable laws (bankruptcy and insolvency laws); and the IFI's operational resilience, its ability to continue operations uninterrupted during resolution and the capabilities to successfully execute the resolution plan.

The Crisis Management Framework provides meaningful optionality with respect to each of these three pillars. The Crisis Management Framework also includes:

governance—robust governance mechanisms that govern the IFI's transition from business as usual to recovery and then resolution, and help to ensure that the resolution plan can be executed in a timely manner under a wide variety of scenarios;

playbooks and contingency plans—a wide array of playbooks that provide a comprehensive and practical roadmap to implementing the resolution plan, and contingency plans for maintenance of funding, services and other resources during a resolution event; and

internal testing and challenges—extensive internal testing and challenges to confirm the sufficiency of the resources and the IFI's ability to execute the resolution plan as designed.

The resolution plan should set clearly the IFI's governing structure, legal entities, business model, sources of capital, sources of funding, business lines, third party service providers, products, sales channels and all other aspects of the business. The plan should also make clear that any sale of the IFI's portfolios or transfer of its customers by the regulator or a receiver should maintain the Shariah governance. For

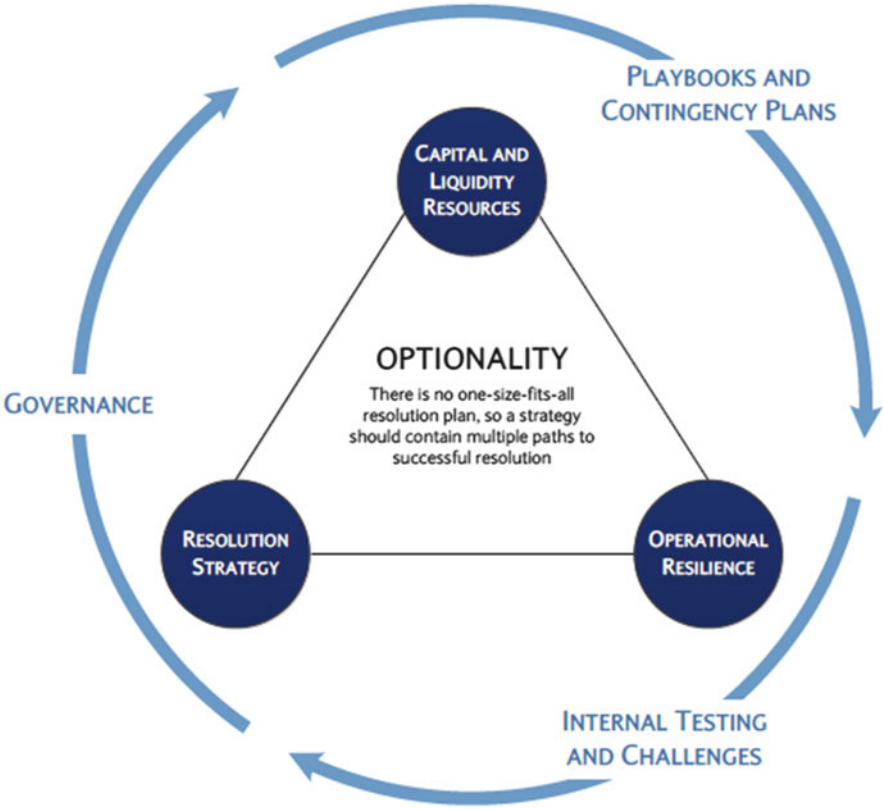


Fig. 12.1 Crisis management framework (source, JPM 2017)

example, selling the IFI's finance book should be done to another IFI, which maintains Shariah governance rather than a conventional institution that does not ensure this aspect. Moreover, the sale of the assets portfolio of the IFI should be underpinned by an acceptable Islamic finance instrument(s) that considers the nature of its existing contracts and their underlying product structures.

Therefore, the sale of equity-based assets would be different to the sale-based assets and so on. An alternative, would be to appoint an administrator to manage the assets for a fee while maintaining Shariah governance. Thus, In the event of a resolution where the regulatory authority steps in and aims to sell the IFI and or its assets, this could be done to interested parties who operates on the same Shariah compliance principles or to asset managers who will continue to run-off the portfolio on those Shariah principles. This would assume to be done under the supervision of either the IFI's Sharia Supervisory Committee (SSC) or the new operator's SSC. Shariah compliance should be maintained throughout the process of resolution or wind down of the IFI. The regulator or purchaser will have to obtain its own Shariah certification for that process. The regulator or purchaser would not be able to utilise

the IFI's existing Shariah certification unless it continues to engage the IFI's SSC members throughout the process of resolution.

A resolution plan is only effective if the key elements that support it are embedded in an IFI's day-to-day operations, and an awareness of resolution plan goals and principles underpin its daily operations and strategic planning. An effective resolution plan is not one-size-fits-all and is not designed in a vacuum. It must be tailored to the structure and business activities of the IFI and take into account the real-world challenges that an IFI would be likely to face when in material financial distress and attempting to resolve itself in an orderly manner. IFIs should conduct a multiyear analysis of the business and the challenges that they could face in a potential resolution, and based on self-assessments and feedback from regulators, so that resolution plan fully addresses each of those challenges.

12.6.1 Capital and Liquidity Resources

Capital is the ability of an IFI to absorb losses, and so Key Operating Entities within an IFI must maintain or receive sufficient capital resources to support the uninterrupted operations of the business as it is resolved. Liquidity and funding, on the other hand, is designed to provide the Shariah compliant funding that enables the IFI to pay bills when due, and so Key Operating Entities within the IFI must maintain or receive sufficient liquidity resources. Typically, cash or assets that can be quickly sold to support the uninterrupted operations of the IFI as it is resolved, and businesses are divested.

12.6.2 Resolution Strategy

Governance mechanisms—Directors and management of an IFI must know how and when to respond effectively to the IFI's financial distress, including when to implement the resolution strategy. Governance mechanisms are internal triggers that require information to be escalated to directors and senior management so that they can make timely and informed decisions.

Defence against legal challenge—A provision of liquidity or capital support to subsidiaries before a parent company's bankruptcy filing could come under legal challenge in bankruptcy court proceedings. Thus, an IFI must thoroughly analyse potential legal challenges to any planned provision of support under its resolution strategy, and implement defences to these challenges.

Legal entity structure—The material legal entities in an IFI must be organized in a rational way that supports an orderly resolution, which includes having practical options for breaking up and shrinking the IFI in a resolution scenario.

Cross-border cooperation and coordination—Because large, systemically important financial institutions operate across the globe, a resolution plan must address

the risk that foreign regulators or third parties could take actions in ways that could negatively affect the IFI's ability to successfully execute its resolution strategy.

12.6.3 Operational Resilience

Operational capabilities—An IFI must have the operational capabilities, which means experienced personnel and sufficient technology, capacity and other capabilities, to deal with the surge in activity that would come in a time of crisis, as well as divestiture of portions of the IFI, so that its key operations can continue uninterrupted as the IFI is resolved. This would include being able to handle the resolution process within Shariah governance and requirements without exacerbating the situation further by committing Shariah breaches due to a lack of knowledge or experience.

***Tahawwut* and trading activities**—Although derivatives or hedging instruments and trading activities help both customers and IFIs to manage risk, they are not encouraged in IFIs to be used out of the context of risk management. An IFI with a sizeable derivatives and trading portfolio will encounter additional operational challenges if it is in financial distress. As a result, a resolution plan must address the risks raised by a large portfolio of derivatives and trading activities.

12.7 Conclusion

This Chapter has discussed the approach to preparing the ILAAP assessment for IFIs, its components, governance and requirements. The Chapter addressed three main concerns for the resilience and survival of IFIs, first it discussed the ILAAP process, its importance and its components in relation to IFIs. In the second and third sections it discussed the recovery and resolution plan respectively, their framework and building blocks.

In view of the major role of the ILAAP, recovery plan and resolution strategy for IFIs, all of its key elements are expected to be approved by the management body. The management body, senior management and relevant committees are expected to discuss and challenge these documents in an effective way. Each year, the management of an IFI is expected to provide its assessment of the liquidity adequacy of the institution, supported by ILAAP outcomes and any other relevant information, by producing and signing a clear and concise statement, the liquidity adequacy statement (LAS). The management of an IFI also has overall responsibility for the implementation of the ILAAP, and it is expected to approve an ILAAP governance framework with a clear and transparent assignment of responsibilities, adhering to the segregation of functions. The governance framework is expected to include a

clear approach to the regular internal review and validation of the ILAAP, recovery options and resolution plan.

Pursuant to Article 86(1) CRD IV, an IFI is expected to have robust strategies, policies, processes and systems for the identification, measurement, management and monitoring of liquidity risk over an appropriate set of time horizons, including intraday, to ensure that it maintains adequate liquidity buffers. In addition to an adequate quantitative framework for assessing liquidity adequacy, a qualitative framework is needed to ensure that liquidity adequacy is actively managed. This includes the monitoring of liquidity adequacy indicators to identify and assess potential threats over different time horizons, including intraday, in a timely manner, drawing practical conclusions and taking preventive action to ensure that regulatory and internal liquidity buffers remain adequate.

The quantitative and qualitative aspects of the ILAAP are expected to be consistent with each other and with the IFI's business strategy and risk appetite. The ILAAP is expected to be integrated into the business, decision-making and risk management processes of the IFI incorporating Shariah non-compliance risks. The ILAAP is expected to be consistent and coherent throughout the group of an IFI. IFIs are expected to maintain a sound and effective overall ILAAP, recovery plan and resolution strategy architecture and documentation of the interplay between the ILAAP elements and the integration of the ILAAP into the IFI's overall management framework. The ILAAP is expected to support strategic decision-making and, at the same time, be operationally aimed at ensuring that an IFI maintains adequate liquidity on an ongoing basis, thereby promoting an appropriate relationship between risks and rewards. All methods and processes used by IFIs to steer their liquidity as part of the operational or strategic liquidity management process are expected to be approved by the IFI's SSC, thoroughly reviewed, and properly included in the ILAAP and its documentation.

Furthermore, A recovery and resolution plan is only effective if the key elements that support it are embedded in an IFI's day-to-day operations, and an awareness of the recovery and resolution plan objectives and principles underpins its daily operations and strategic planning. An effective recovery and resolution plan is not one-size-fits-all and is not designed in a vacuum. It should consider the specific Shariah requirements and governance framework of IFIs. Stay tuned to the in-depth insights I provided here as we move on to another important matter that is closely connected to this Chapter and the chapter before it (Chap. 11). Next chapter discusses stress testing, which is very contemporary subject in the financial market arena.

Chapter 13
Stress Testing Methodologies for Islamic Finance

13.1 Introduction

This Chapter builds on the analysis provided in Chap. 12 regarding liquidity assessment for IFIs. In the previous chapter we discussed the Shariah governance application to the liquidity adequacy assessment, recovery options and resolution strategy that IFIs should prepare and maintain on ongoing basis. These documents should include EWIs (early warning indicators) and ongoing monitoring by the management of IFIs to identify any threats as early as possible. In this Chapter I discuss a curtail requirement for preparing the various documents we discussed in earlier chapters (Chaps. 11 and 12) i.e. ICAAP, ILAAP and recovery and resolution plan. Stress testing and reverse stress testing should be incorporated in the above capital and liquidity assessments as an integral component. In this context, I highlight the importance of stress testing as a risk management tool for IFIs, I also discuss macro and micro stress testing, the implication of stress testing to IFIs and particular consideration in stress testing and reverse stress testing for IFIs.

Stress testing is an important tool for risk management in the operation of IFIs and the Islamic capital market (ICM). IFI's products use different liquidity risk approaches due to regional, regulatory, legal, product and operational requirements that may require a certain approach to manage the associated risks. This Chapter provides in-depth insights of the best practices for a stress testing framework for the survival of IFIs in the face of possible market shocks. This subject is important for two reasons: the survival of the Islamic finance model, which is underdeveloped, is hugely dependent on its risk stress testing management approach. Also, the ability of managing such market shocks without compromising Shariah requirements.

Before the recent global financial crisis of 2008, liquidity risk was viewed as a second order risk, while now is considered a major risk class. It showed us how quickly a risk, which starts as a market or credit risk, transforms into a liquidity event and how rapidly it develops into a systemic issue. Consequently, it has led capital markets and financial authorities to take into account the liquidity risk in stress

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_13

testing frameworks (TATA 2013). Therefore, now stress testing is an important aspect of the liquidity risk management framework for the financial market as a whole. The primary objective is for any capital market to hold or have access to sufficient and timely liquidity under both normal and stressed circumstances to enable it to continue to meet its obligations as and when they fall due (BCBS 2009).

Stress testing is an important risk management tool that is used by financial institutions as part of their internal risk management and, through the Basel II capital adequacy framework, is promoted by regulators. Stress testing alerts the management of IFIs to adverse unexpected outcomes related to a variety of risks and provides an indication of how much capital or funding might be needed to absorb losses should large shocks occur (BCBS 2009). The liquidity stress testing is divided into macro and micro stress testing. The main difference between micro and macro stress-testing is that the former is conducted by individual IFIs. This is done as part of their risk management framework. The objective of it can be seen as limiting the likelihood of failure of the institution, while the latter is usually applied by central banks and regulatory supervisors to assess the resilience of the financial sector and the capital markets as a whole (IMF 2011).

On the other hand, stress testing, whether macro or micro, includes scenario and sensitivity testing. Scenario testing uses a hypothetical future state of the world to define changes in risk factors affecting IFIs' operations. Whereas, sensitivity testing involves an incremental change in a risk factor (OSFI 2009).

This Chapter provides an analysis into the real practices of stress testing as a risk management tool. Although, the current regulatory approach adopted by the ECB (European Central Bank) that regulates the market in the member states including the UK, so far until Brexit (the UK exit from the European Union) arrangements are agreed, this approach includes IFIs without any special treatment. Therefore, IFIs must negotiate locally possible arrangements that do not contradict compliance with Shariah or find other alternatives.

13.2 Stress Scenario and Sensitivity Testing

In 2014, the Bank of England announced the first concurrent stress test of the UK financial system. It was built on the common, EU, wide exercise coordinated by the European Banking Authority (EBA) (Bank of England 2014). Stress testing originated not in finance but in engineering. In its broadest sense, stress testing is a technique to test the stability of an entity or system under adverse conditions. In finance, it was originally used to test the performance of individual portfolios or the stability of individual institutions. More recently, similar techniques have been employed to test the stability of groups of financial institutions that, taken together, can have an impact on the economy as a whole (Borio et al. 2012). The analysis shows that stress testing includes scenario testing and sensitivity testing and can be divided into micro and macro stress testing. The scenario testing uses a hypothetical future state of the world to define changes in risk factors affecting an IFI's

operations. It is typically conducted over the time horizon appropriate for the business and risks being tested (Peria et al. 2001).

Rule 12.1 of the Internal Capital Adequacy Assessment (ICAAP) of the Prudential Regulation Authority (PRA) Rulebook requires IFIs to carry out stress tests and scenario analyses as part of its obligations under the overall Pillar 2 rule. The PRA further expects IFIs to consider any impacts of the adverse circumstances on their capital resources over a 3- to 5-year time horizon. Therefore, IFIs should perform stress tests at least annually when reviewing their ICAAP document. The main purposes of stress testing and scenario analysis are the following:

- Quantifying how much capital might be absorbed if an adverse event(s) occurs
- Providing a check on the outputs and accuracy of the IFI's risk assumptions and assessments; and
- Exploring the sensitivities in longer-term business plans and how capital needs might change over time.

Stress tests and Scenario analysis typically refer to a wider range of parameters being varied at the same time to assess the impact of adverse events on the IFI's financial position. A stress test scenario can be defined by taking into consideration various elements relevant to an IFI's operating model and its country of operation, examples of such elements are:

- economic outlooks, in particular the ones related to the country of the IFI and its other affiliated entities;
- internal information available through MI, financial statements and similar documents; and
- regulator supervisory statements, frameworks and guidelines.

Senior management of the IFI should then discuss, challenge and approve the stress scenarios to ensure that they are sufficient in scope and robust. Then, the stress scenarios should be completed, the stress tests performed and the related information included in the ICAAP. By doing that, IFIs therefore ensure that stress testing is undertaken in a rigorous and comprehensive way and has a fundamental role in deciding whether the risk appetite of the IFI needs to be revisited or adjusted in light of the result of the stress tests. It also considers the possible remediation actions in case the stress tests crystallise.

One of the key challenges with scenario analysis is to translate a scenario into balance sheet impact, changes in risk measures, potential losses, or other measures of adverse financial impact, which would vary depending on the test design and type of scenario used (Board of Governors of the Federal Reserve System 2012). On the other hand, sensitivity testing involves an incremental change in a risk factor. It is typically conducted over a shorter time horizon. It requires fewer resources than scenario testing and can be used as a simpler technique for assessing the impact of change in risks when quicker response or when more frequent results are needed (OSFI 2009).

Micro stress testing is designed and run by individual IFIs to assess their resilience. Whereas macro stress test is designed to assess resilience of the whole

financial system and usually run by the government (Fell 2006). Any stress test, whether micro or macro, has four elements. The first is the set of risk exposures subjected to stress. The second is the scenario that defines the shocks that stress those exposures. The third is the model that maps those shocks onto an outcome (or impact), tracing their propagation through the system of an IFI. The fourth is a measure of the outcome on various relevant structures and products of the IFI or the Islamic finance market. These factors are consistent with Borio's et al. (2012) analysis.

The role of stress tests in risk management in IFIs (Peria et al. 2001) is summarised below:

1. Stress test provides information on the sources of risk in a portfolio that is relevant for decision makers at all levels of management in an IFI.
2. At the managerial level, it enables a comparison of risks across different asset classes and exposures, it also highlights the need for risk limits and controls.
3. At executive level, it provides a way of comparing the risk profile of an IFI's products with the risk appetite of the owners, helping to guide decisions on the optimal allocation of capital within that operational approach.
4. For all levels of market participants, it provides help to determine if the return on a particular product or position is commensurate with the level of risks.

The metrics that an IFI uses to manage and monitor its liquidity and funding risks are a key part of the IFI's regular planning process. The planning runs through one main budget with a 5-year outlook, and monthly updated data to reflect any changes between targets and actuals, along with any forecast adjustments. Then the IFI should run an iterative process across the inputs received, providing review and challenge and requesting revised assumptions where necessary. Overlaying this process, each of the key metrics that are set out which are calculated across the assessment and strategic plan to ensure compliance with those metrics is maintained; this includes metrics for liquidity and funding, as well as other areas such as capital. The impact of the plan on these metrics is then considered as part of the overall approval process and is subject to challenge by relevant business functions and the approving senior management committee. The assessment that an IFI meets all of its funding and liquidity requirements over the full life of its business plan is a key demonstration that the IFI meets its OLAR, specifically that it is able to evidence that it has adequate liquidity at all times (Alamad 2016).

In the cyclical stress test carried by the Bank of England in 2018, the Bank considered in its scenario testing adjustments to hurdle rate to reflect the increased loss absorbency that will result from higher provisions in stress under the new IFRS 9 accounting standard. The introduction of IFRS 9 in January 2018 has presented implications for participating banks' stress-test results. It means that provisions against financed assets losses will typically be made earlier in an economic downturn. As a result, an IFI' capital ratios are likely to fall more sharply than they did in previous tests. The change in accounting standard does not, other things equal, change the total amount of losses an IFI would incur through a given stress. Recognising the increased loss absorbency that will result from higher provisions

in stress under IFRS 9, therefore the Bank of England intend to use the information provided by the 2018 stress test to make adjustments to the hurdle rates against which an IFI' performance test is assessed. Applying the same stress scenario as in the 2017 ACS (annual cyclical scenario) allows the Bank of England to estimate the impact of this accounting change. Any adjustments to hurdle rates will be subject to the constraints that: the effect of adjustments on system-wide capital requirements will be no bigger than the impact in aggregate of changing the accounting standard; and no bank should have a hurdle rate after any adjustment that is below its minimum risk-weighted (Pillar 1 plus Pillar 2A) capital and leverage ratio requirements.

An important consideration in determining the scale of adjustments will be the degree to which provisions made early in a stress, in anticipation of future losses, provide additional loss-absorbing capacity for IFIs. Transitional capital arrangements should be in place, which allow IFIs to 'add back in' a portion of the increase in expected credit loss provisions resulting from the introduction of IFRS 9 to their CET1 (common equity tier 1) capital. These arrangements will be phased out by 2023. The results of the 2018 stress conducted by the Bank of England without transitional arrangements will be used to help calculate the size of any adjustments to hurdle rates in response to the new accounting standard. The Bank of England will assess participating banks' results on a transitional basis. It will phase in any adjustment to hurdle rates between the 2018 and 2023 stress tests as transitional arrangements are gradually removed.

13.3 Liquidity Stress Testing

An IFI should conduct stress testing for liquidity adequacy. Through such stress testing an IFI can work to identify vulnerabilities related to liquidity adequacy in light of both IFI-specific and market-wide stress events and circumstances. Effective stress testing helps IFIs identify and quantify the depth, source, and degree of potential liquidity and funding strain and to analyse possible impacts on its cash flows, liquidity position, profitability, and other aspects of its financial condition over various time horizons (Board of Governors of the Federal Reserve System 2012). In the financial sector, a primary liquidity risk is funding run-offs in an IFI-specific event as was clear in the analysis provided in Chap. 12. When using IFI-specific historical data, some IFIs add an extra cushion to the assumed outflows to factor in their perception that data largely based on stable historical periods may not adequately proxy depositors' behaviour during a future stress event (BCBS 2006).

The severity of funding/deposit outflows in a stress scenario depends upon factors including the strength of an IFI's relationships with its client, the proportion of deposits that is protected by deposit insurance schemes, the strength of an IFI to quickly be able to raise funds in the capital market, the composition of its balance sheet and the duration of the crisis (BCBS 2006). The percentage of funds that exit

an IFI in a crisis scenario is typically postulated to be in the single digits, with a few IFIs assuming outflows could be in the low double digits. In some jurisdictions this reflects an assumption that retail clients would be comforted by deposit insurance and so would not withdraw their deposits, but what would give the same comfort to corporate investors and depositors (Matten 2009; BCBS 2006).

For corporate, IFIs and government deposits, which tend to be uninsured, typical worst-case scenarios reflect outflows of between 20 and 50%, typically over a 1-month time span. Outflows are at least sometimes assumed to be 100% for certain deposit types that are dependent on the IFI's credit rating. At least some IFIs make finer breakdowns according to the type of client and the relationship between the client and the IFI, for example, distinctions between domestic and foreign depositors or per geographical regions of an IFI (GARP 2011; BCBS 2006). IFIs generally assume that time deposits will not be withdrawn until maturity and at maturity, some percentage will be renewed. IFIs also commonly assume that they will rollover finances as they mature in order to protect their franchise. They assume that the repo and securitisation markets remain open, that certain assets remain liquid, and that the currencies of the developed countries remain convertible (Alamad 2016).

Nonetheless, most IFIs recognise that assets may entail haircuts (depending on the scenario); and some assume that even secured funding would not be available, except from central banks, which is not widely available for IFIs in a Shariah compliant way. Many also recognise that intra-group cash flows might be disrupted as has been shown recently in 2015/16 low oil prices environment and less cash flow from GCC (Gulf Cooperation Countries) IFIs to their subsidiaries elsewhere, this was evident by the analysis of the collected data. In addition, IFIs also conduct stress tests for sudden, unexpected demands for liquidity that may arise from products or services that require them to provide funding based on a triggering event (BCBS 2006). For instance, a credit downgrade of an IFI may prompt the IFI's counterparties to request additional collateral for derivatives transactions or wholesale funding. Other common triggers include the need to fund liquidity backup arrangements and credit enhancements for securitisations. Therefore, more than half of IFIs stress test hypothetical crises lasting 1 month or less; one quarter test crises lasting 2 or 3 months; and the remainder test crises lasting 6 months or more. A few IFIs test a range of different durations (BIS 2010a, b; BCBS 2006).

There are some useful tools and systems in the market to help model liquidity stress testing, such ALMIS and Excel or a combination of both that provide outputs based on the inputs entered by the IFI. The data would be entirely based on the month end position of the IFI, using source extracts from the modelling system and adjusting it based on latest pipeline forecasts. The stress outputs would detail a 180-day view of cash inflows and outflows, based on approved assumptions, under all three scenarios i.e. market-wide, idiosyncratic and combined scenario. All assumptions within the model and the methodology should have been approved by the IFI's governing body. Any significant deviation from what has been approved i.e. if the IFI experienced a sudden change in observed outflow rates: would need to be presented to the approving body, discussed and a decision made around whether to update an assumption or wait until the preparation of the next ILAAP is due to be

incorporated there. Significant improvements can still be made to the stress testing methodology when using this tool, such as more frequent and granular analysis as well as enhanced controls around data management and a lesser reliance on excel to adjust some of the variables not covered under other tools. In addition, the LCR and NSFR ratios could also be built into the model, enabling a fully standardised suite of liquidity reporting requirements. These steps would result in an IFI having even tighter controls around liquidity management.

In addition to the three scenarios mentioned above and discussed in Chap. 12, Sect. 12.3.1, market-wide, idiosyncratic and combined scenario, IFIs should also consider other scenarios that are relevant to their operations. This is to ensure that IFIs consider other events that may have a more significant impact on their liquidity requirements. The key consideration for IFIs is to look at those events that will have the biggest impact on their primary liquidity risk driver, retail and wholesale outflows. IFIs usually consider that the idiosyncratic stress is the most extreme scenario, rather than the market-wide or the combined. The rationale for this is that under an idiosyncratic stress an IFI would expect to see depositors moving money away from it to other providers. In a market-wide stress, an IFI would still expect to lose some customers, especially e.g. those looking to reduce their balances to below the deposit protection threshold applied in their jurisdiction, but there would be less movement to other banks if they were also in a stress situation. However, under a combined scenario, the outflows would be worse than those seen in a market-wide stress, but an IFI would still consider that its deposits would be much reduced due to the unique, niche nature of its operations in a conventional market. Sudan and Iran are the only countries in the world that implement only Islamic finance system and do not have conventional banks.

13.3.1 Regulatory Requirements and Guidance

Current imposed regulatory requirements in the UK (BoE 2014), which aim to ensure some resilience of the financial system and capital market, are set out in accordance with BIPRU 12.4. These regulatory requirements state that a firm must conduct regular stress tests so as to:

- identify sources of potential liquidity strain;
- ensure that current liquidity exposures continue to conform to the liquidity risk tolerance established by that firm's governing body; and
- identify the effects on that firm's assumptions about pricing.

BIPRU 12.4 sets out the requirements in relation to carrying out liquidity stress testing including:

- stress tests should consider both short-term and protracted stress scenarios and both IFI-specific and market-wide difficulties;

- the assumptions used in stress testing scenarios should be regularly reviewed to ensure that their nature and severity remain appropriate; and
- the results of the stress tests are reviewed by senior management and reported to the governing body.

Furthermore, an IFI must, where relevant, consider the impact of its chosen stresses on the appropriateness of its assumptions relating to:

(a) correlation between funding markets;
(b) the effectiveness of diversification across its chosen sources of funding;
(c) additional margin calls and collateral requirements;
(d) contingent claims, including potential draws on committed lines extended to third parties or to other entities in the firm's group;
(e) liquidity absorbed by off-balance sheet vehicles and activities (including conduit financing);
(f) the transferability of liquidity resources;
(g) access to central bank market operations and Shariah compliant liquidity facilities;
(h) estimates of future balance sheet growth;
(i) the continued availability of market liquidity in a number of highly liquid markets;
(j) ability to access secured and unsecured funding (including retail deposits)
(k) currency convertibility; and
(l) access to payment or settlement systems on which the IFI relies.

An IFI should ensure that the results of its stress tests are:

- reviewed by its senior managers, specific Shariah stress scenarios should be also reviewed and validated by Shariah compliance;
- reported to that IFI's governing body, specifically highlighting any vulnerabilities identified and proposing appropriate remedial action;
- used to develop effective contingency funding plans;
- integrated into that IFI's business planning process and day-to-day risk management; and
- taken into account when setting internal limits for management of that IFI's liquidity risk exposure (Ali 2012a).

13.3.2 Liquidity Risk Stress Testing Framework

The objective of a liquidity risk stress test for an IFI is to:

(a) identify key risk factors and drivers affecting assets and liabilities;
(b) design scenarios which align with assets and liabilities;
(c) test the resilience of funding sources and alternatives under idiosyncratic and systemic disruptive events (BIS 2008, 2009, 2010a, b; TATA 2013).

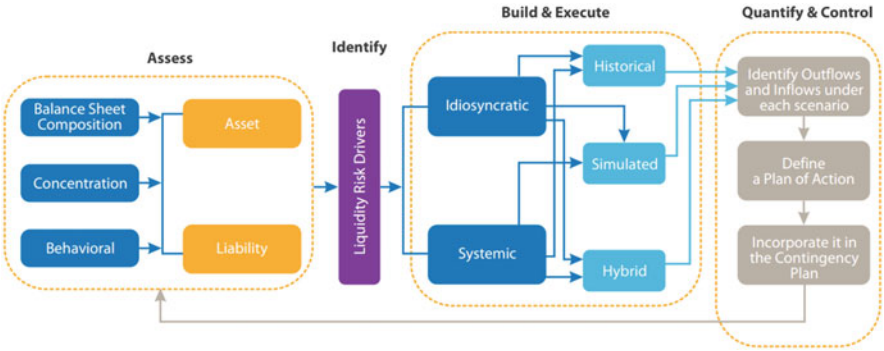


Fig. 13.1 Liquidity risk stress testing framework

Based on the analysis of the data collected and the regulatory requirements as interpreted and implemented by IFIs, Fig. 13.1 sets out a proposed liquidity risk stress testing framework that helps in planning ahead for market shocks and the long-term survival of IFIs. This framework comprises of four stages:

(a) Assess

Understanding the composition of the balance sheet is crucial to designing relevant stress scenarios. Each IFI will have a unique balance sheet hence the composition of assets and liabilities will differ from an IFI to the other. An understanding of the behavioural characteristics of assets and liabilities, and the impact of the Shariah compliant structure they are based upon, is one of the most crucial elements in designing relevant stress scenarios.

(b) Identify

The next step after assessing and understanding the balance sheet is to figure out which liquidity risk factors or drivers affect the balance sheet the most. In most cases, the genesis of liquidity risk lies within a market risk, credit risk and/or an operational risk event or a combination of these risk classes. The canvas of liquidity risk is therefore larger than any other form of risk and hence the risk factors to be considered for designing scenarios is also larger. The analysis of the concentration of assets and liabilities and their behavioural profile will aid in identifying the main risk factors from the larger population.

(c) Build and execute

The previous two steps (Assess and Identify) ensure that the scenarios which are built to perform stress tests are in sync with the nature of the balance sheet and the factors affecting it, such as the various requirements of Islamic finance principles that IFIs' products are structured on.

The Build and Execute phase of the framework is more computationally intensive. Regulators need IFIs to design scenarios taking into consideration both

idiosyncratic stress and system wide stress. The biggest challenge an IFI is likely to face while building and executing scenarios is availability of quality data. Well established frameworks for market and credit risk still face hurdles due to unavailability of correct data. As such, the challenge for liquidity risk will be more pronounced (Alamad 2016).

(d) Quantify and control

After developing the scenarios, each scenario is executed. The scenarios which produce negative net cash flows are studied carefully and probabilities of occurrence assigned accordingly. Based on the IFI's priorities and policies, each of the identified negative cash flow scenarios under Bad, Severe and Catastrophic are mapped.

A plan of action should be defined to counterbalance the effects of these cash flows. One of the standard methods of counterbalancing is to use the unencumbered asset pool. Guidelines prescribed by the Basel Committee on Banking Supervision (BCBS) for the classification of High Quality Liquid Assets (HQLA) should be considered for assessing the Shariah compliant means available for countering liquidity stress under different scenarios.

13.4 Micro Stress Test

Micro-prudential stress tests emphasize the traditional role of IFIs' capital as a buffer against loss, shielding the deposit insurance agency where applicable. The focus is on resolving insolvent IFIs to reduce any impact on the Islamic finance market by "prompt corrective action" to protect consumers. The Basel capital ratio is key (Barfield and Venkat 2008). Micro stress tests are designed to provide certain variables and assess their impact, these are listed below:

- Designed to assess resilience of individual IFI.
- Mainly run by individual IFI for the purpose of institutional risk management.
- Often ignores behaviour of competitors.

13.4.1 Elements of Micro-Prudential Stress Tests

There are also certain elements that should be embedded in any micro-prudential stress tests; these elements are set out below (Barfield and Venkat 2008).

– **Purpose:** The goal of any micro-prudential stress tests is to value the IFI's assets correctly and determine that adequate loss bearing capacity is in place to protect it in the event of a financial shock and to avoid possible bailout.
– **Scope:** the scope of any micro-prudential stress tests is to analyse one IFI at a time, or use data from multiple IFIs to overcome imperfect information about the value of individual IFI's assets.

- **Liability Considerations:** Counting the amount of insured deposits and the amount of junior debt and equity. The required loss absorbency is calculated as a ratio relative to asset risk.
- **Asset Considerations:** Assessing credit risk of different assets determines enterprise risk, so loss absorbency of liabilities is tied to asset composition. A capital ratio therefore naturally emerges as a basis for supervision.
- **Output:** Developing guidance about whether to close an IFI and when to sell its assets to maximize stakeholders' recovery.

13.5 Macro Stress Test

Macro-prudential stress tests focus on whether IFIs and the Islamic financial system as a whole has the balance sheet capacity to support the economy. A central goal is averting systemic runs on IFIs by wholesale creditors that lead to a contraction of credit and damage to the broader economy. To avoid aggregate deleveraging in periods of distress, remedies focus on raising new capital measured in total Sterling (US Dollars or Euros), rather than on merely satisfying capital ratios (Fell 2006).

Thus, macro stress tests are designed to assess resilience of the financial system as a whole rather than individual IFI only. Like micro-prudential stress tests, macro-prudential stress tests also have certain elements that should be observed when undertaking a stress test, these elements are provided below.

13.5.1 Elements of Macro-Prudential Stress Tests

- **Purpose:** the goal is to limit the likelihood and costs of aggregate first sales, credit crunches and defaults.
- **Scope:** the test examines the entire financial system. Any entity that contributes to fire sales, whose default has follow-on effects, or which can exacerbate a credit crunch should be included.
- **Liability considerations:** because a run can lead to a credit crunch or fire sale, the scale of wholesale funding that is run-prone is of paramount importance. Capital adequacy depends on the health of the overall financial system.
- **Asset considerations:** asset liquidity is critical, because illiquid assets can contribute to fire sales. Asset risk depends on both default risk and fire sale risk.
- **Output:** the test indicates whether the financial system is vulnerable to deleveraging that might amplify adverse shocks (ECB 2008). IFIs operating in developed financial and capital markets are required to incorporate the above stress tests in their modelling and operations. However, this would follow certain dynamics tailored to the way IFIs operate and the different structure of their wholesale products, which are so far limited to some extent.

13.6 Dynamics of IFIs' Liquidity Position

The dynamics of an IFI is dependent on the available sources of liquidity and funding, which are limited in contrast to the traditional financial institutions. IFIs usually have a number of potential sources of liquidity, these sources of liquidity include:

- Customers' deposits;
- Cash flows from maturing transactions;
- Reverse *Murabaha*, *Wakala* or *Mudaraba* transactions in the interbank market (including those with break clause agreements);
- A well-diversified Islamic marketable assets portfolio;
- Liquidity asset buffer;
- Central bank deposit;
- Shareholder support.

13.6.1 Factors Which Might Impact Liquidity Position

There are various factors that would impact the position of an IFI and its medium to long term survival horizon and resilience. IFIs should consider such factors in their stress tests based on their products and direction dictated by the underlying Islamic finance instruments they employ. These factors are discussed below.

(a) Retail assets

IFIs' retail assets primarily comprise of secured financing for the purposes of commercial and residential property portfolios. This includes home finance, buy to let and commercial finance products. These products are structured usually as an *Ijara* with diminishing *Musharaka* (leasing under a partnership arrangement), leasing ending with ownership or *Murabaha* (credit sale), with term ranging between 5 and 30 years. Inherently, these retail asset products provide low levels of liquidity risk as the cash flows associated with them are known well in advance, via their payment schedules.

(b) Wholesale assets

Usually IFIs' portfolio of wholesale assets is composed of commodity *Murabaha*, *Mudaraba* and *Wakala* deals, Sukuks held as part of IFI's liquidity asset buffer requirements, central bank deposits and other instruments.

(c) Retail liabilities

Retail liabilities usually are provided via internet, post, telephone and branches network. As a result, IFIs are susceptible to a sudden and material withdrawal of retail finding, particularly in situations where there is a retail-based crisis in confidence in banking in general or if compliance with Shariah may be called into question.

(d) Wholesale liabilities

IFIs utilising unsecured wholesale markets for funding are exposed to refinancing risk, particularly those that rely on short-term financing to fund their businesses, as was demonstrated during the credit crisis which began in 2007.

Therefore, stress scenarios have been developed with the objective of assessing risks to both sides of the IFI's balance sheet. Our analysis has considered such stress events and analysed them in accordance with various collected data from IFIs. These key scenarios as emerged from the findings include:

- One off scenario causing significant doubt over an IFI's financial stability and servers withdrawal of retail funds;
- Challenge to an IFI's status as a wholly Shariah compliant bank leading to loss of confidence and severe retail withdrawal;
- Market wide liquidity shortfalls resulting a default of a major counterparty(s);
- A Shariah non-compliance event or material breach; and economic downturn; and
- A combination scenario covering the impact of idiosyncratic and market wide stress on an IFI.

By incorporating the analysis above, the following scenarios have been considered for IFIs as shown in Table 13.1.

IFIs maintain a holding of eligible liquidity assets comprising sovereign sukuks, when a Shariah compliant central bank liquidity facility is not available. But they do not usually maintain a significant portfolio of other marketable assets, so the concept of applying haircuts or discounts of varying severity, becomes less important in this context. Therefore, given the absence of a portfolio of marketable assets, the methodology adopted by such IFIs for stress testing primarily focuses upon the loss of retail deposits, particularly acceleration of treasury deposits, coupled with delinquency in both its wholesale and retail assets. However, when an IFI has more exposure to marketable assets, such as large IFIs in the GCC, Southeast Asia and the Middle East, applying haircuts or discounts of varying severity becomes important.

IFIs operating in Europe have drawn upon actual experiences gained during the recent economic crisis and accordingly the stress factors utilised within the revised scenarios are based upon each IFI's own judgement, actual experience, and a high degree of conservatism. Table 13.2 details the approach taken to derive the stress factors for each event type and the relevant analysis associated with each driver as an impact on IFIs and its position in the Islamic financial market and ability to raise funds.

13.7 Reverse Stress Testing

Reverse stress testing identifies and considers scenarios that would lead to an IFI's business model becoming unviable. Particularly, a scenario or combination of scenarios that threaten the viability of the IFI's business model is of particular use

Table 13.1 Stress testing scenarios

Event	Scenario	Impact
Event 1 Idiosyncratic event	Well publicised rumour that an IFI is suffering a severe financial distress and may default imminently resulting in a severe retail outflow for 2 weeks followed by a sustained leakage of funds thereafter.	• There may be an immediate 'flight to quality' as larger deposit investors move assets into more traditional 'safe havens' such as cash, gold or government bonds and smaller deposits move balances away from the IFI. • The IFI would be unable to access funds in the unsecured wholesale markets until its financial situation had been clarified. • The IFI's top treasury/term depositors accelerate their maturities and demand immediate repayment of their funds (threatening high profile public campaign to damage the IFI's name if not accepted and pledging support to redeposit at a later date if their requirements are met). • General market liquidity would not be affected, enabling the IFI to request early payment of commodity Murabaha and Wakala contracts from its counterparty banks. • The IFI's position could deteriorate if confidentiality from 'break-clause' banks is not maintained, and/or the IFI does not make a public statement of reassurance.
Event 2 Collapse of a major wholesale causing market wide loss.	Major event, e.g. collapse of a major market counterparty(s) causing severe disruption primarily to wholesale markets, with some impact to retail markets possible.	• An IFI suffers a wholesale counterparty(s) default. The loss is not deemed recoverable within the time horizon of a liquidity stress test and is therefore the expected inflow of maturing funds from the defaulting counterparty within the first 3 months of the stress event do not materialise. • Wholesale markets would effectively be closed until some market normality had been restored. This could impact the IFI's ability to access UK wholesale markets and make use of available funding lines for a period of 3 months. • Payment systems continue to work effectively.

(continued)

Table 13.1 (continued)

Event	Scenario	Impact
Event 3 Combination	A combination of the scenarios described above impact simultaneously.	• Combination of all impacts for each of the scenarios described above
Event 4 Sharia Non-Compliance event	Challenge to IFI's status as wholly Shariah compliant bank leading to loss of credibility due to: • Material Shariah breaches by the management of the IFI causing its SSC to issue a non-Shariah compliance statement or resignation of one or more of its SSC. • Failure to adhere to or ineffectiveness of controls allowing launch of non-compliant asset/liability products.	• Commercial and residential finance products may be switched to alternative providers. • Loss of deposits as a proportion of the religiously rigid/religiously/inclined depositors, look to re-invest elsewhere. • Serious reputational damage and loss of credibility to the IFI that would last for a long time and would impact the IFI any new business.
Event 5 Economic Downturn	An economic slowdown resulting in rising unemployment, an increase in consumers facing debt-repayment difficulties and increases in arrears on both secured and unsecured finance facilities leading to property repossessions, which would in turn depress property prices further.	• Reduced applications received for secured finance facilities; existing customers of IFIs experience financial hardship, with payment arrears increasing and some legal cases instructed to take control of the assets. Collateral may be insufficient to cover the outstanding finance on some facilities. • Expected withdrawal of retail funds from depositors to supplement loss of income from increased unemployment

as a risk management tool in identifying possible combinations of events and risk concentrations within an IFI that might not be generally considered in regular stress testing. A reverse stress test induces IFIs to consider scenarios beyond normal business settings and leads to events with contagion and systemic implications. For example, an IFI with a large exposure to complex structured credit products could have asked what kind of scenario would have led to widespread losses, such as those observed in the financial crisis (BCBS 2009).

Given this scenario, an IFI would have then analysed its hedging strategy and assessed whether this strategy would be robust in the stressed market environment characterised by a lack of market liquidity and increased counterparty credit risk. Given the appropriate judgments, this type of stress test can reveal hidden vulnerabilities and inconsistencies in hedging strategies or other behavioural reactions. Before the financial market turmoil, such an analysis was considered of little value by most senior management of IFIs since the event had only a remote chance of happening. However, banks now express the need for examining tail events and assessing the actions to deal with them. Some banks have expressed successes in

Table 13.2 Stress testing factors

Event type	Stress factors
Scenario 1: Severe retail withdrawal	• Outflow of maturing retail term and treasury deposits (non-renewals of contractual deposits) with a severe retail outflow in the first 2 weeks followed by a sustained leakage of funds thereafter (Retail Funding Risk). • Outflow of retail instant access deposits in total with a severe retail outflow in the first 2 weeks followed by a sustained leakage of funds thereafter. (Retail Funding Risk). • Outflow of notice deposit accounts that are not already on notice and can contractually be withdrawn within the stress period. (Retail Funding Risk). • Largest deposit account clients instruct the immediate withdrawal of their funds – with further actions against the IFI if demands not adhered to (Franchise Viability Risk). • An IFI would usually honour existing pipe-line business (committed but undrawn) regarding finance facilities. (Off Balance Sheet Risk). • Any wholesale funding is withdrawn (Wholesale Funding Risk). • Inflows arising from planned management actions detailed in an IFI's contingency funding and market response plan.
Scenario 2: Collapse of a major wholesale counterparty, leading to a market wide loss.	• A wholesale counterparty default where an IFI has an exposure to largest wholesale counterparty whereas maturity of the funds occurs within the next 3 months and is not recoverable within the 3-month stress test horizon. (Non-marketable asset risk). • No new wholesale funding obtained during the entirety of the 3-month stress. • Inflows arising from planned management actions set out in the IFI's contingency funding and market response plan.
Scenario 3: Combination	• Top largest liability clients instruct the immediate withdrawal of their funds with possible public relations campaign to damage the IFI's name if demands not adhered to. • No new funding obtained during 0–8 days. • Outflow of retail long-term deposits (as above). • Outflow of retail instant access deposits (as above). • A wholesale counterparty default for a major wholesale counterparty is suffered and is not recoverable within the 3-month stress test horizon. • The stressed IFI would honour existing pipe-line business (committed but undrawn) all finance

(continued)

Table 13.2 (continued)

Event type	Stress factors
	facilities. • Any wholesale funding is withdrawn. • Inflows arising from planned management actions detailed.
Scenario 4: Sharia Non-Compliance	Outflow of % of retail instant access deposits with a severe retail outflow in the first 2 weeks. (Retail Funding Risk).
Scenario 5: An economic downturn	• Downturn in economic climate resulting in: – 25% default on monthly payments of retail asset finance (subject to the limit and ratio set by each individual IFI). – 25% default on monthly payments of commercial and SMEs finance (Non-Marketable Asset Risk, (subject to the limit and ratio set by each individual IFI)).

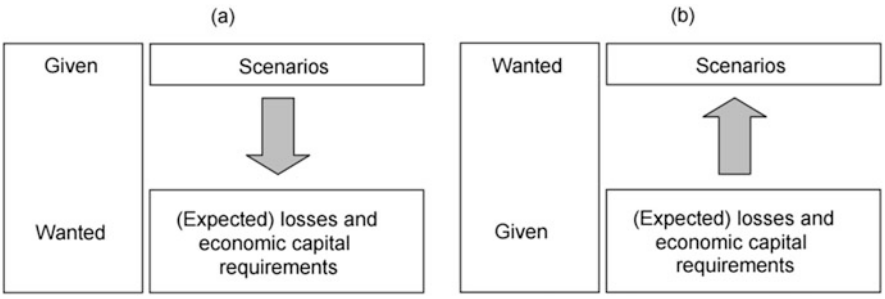


Fig. 13.2 (**a**) Regular and (**b**) reverse stress tests (Grundke 2011)

using this kind of stress test to identify risk concentrations and vulnerabilities. A good reverse stress test, see Fig. 13.2, also includes enough diagnostic support to investigate the reasons for potential failure (Grundke 2011).

Reverse stress tests, as depicted in Fig. 13.2, are not intended to be a substitute for regular stress tests, rather they are intended to be a supplement. According to the supervisory authorities, banks should be allowed to carry out quantitative as well as qualitative reverse stress tests, particularly in the beginning when this concept was first applied.

IFIs should conduct stress testing under severe, but plausible scenarios in order to further and better their understanding of the vulnerabilities that they face under adverse conditions. Scenarios include reverse stress testing of their business plan whereby the IFI identifies a range of adverse circumstances which would cause its business plan to become unviable, and assesses the likelihood that such events could crystallise. Therefore, an IFI's risk framework identifies the material risks to which it is exposed and enables these risks to be assessed in stress testing. As well as informing the assessment of capital requirements and risk mitigation for each type

of risk, the stress analysis guides formulation of business, liquidity and capital planning. A further assessment would focus on the IFI's projected business and balance sheet under a range of scenarios could be conducted over a 5-year timeframe. This would determine the capital buffers required to protect an IFI from adverse circumstances that are outside its normal and direct control to absorb losses, and/or cover increases in its capital requirements.

Hence, stress testing can appear to be a straightforward technique. In practice, however, stress tests are often neither transparent nor straightforward. They are based on a large number of practitioner choices as to what risk factors to stress, how to combine factors stressed, what range of values to consider, and what time frame to analyse. Even after such choices are made, a risk manager in an IFI is faced with the considerable tasks of sifting through results and identifying what implications, if any, the stress test results might have for how the IFI should manage their risk-taking activities.

13.8 Conclusion

This Chapter has discussed stress testing, its types whether macro or micro, its dynamics, reverse stress test and has provided a possible liquidity stress testing framework for IFIs. The Chapter concludes by emphasising the importance of stress testing in IFIs and its impact. Stress testing for liquidity risk is extremely essential to understand the behaviour of the balance sheet and its components during extreme stress scenarios, which are now becoming more frequent. Stress tests, when properly designed and executed, enable the management of an IFI to have contingency plans in place. These plans allow the management to take into consideration scenarios where things could go wrong and the resulting impact.

A well-understood limitation of stress testing is that there are no probabilities attached to the outcomes. Stress tests help answer the question "How much could be lost?" Islamic finance practitioners fully appreciate that the answer to this question is not as informative as would be the answer to the question "How much is likely to be lost?" The lack of probability measures exacerbates the issue of transparency and the seeming arbitrariness of stress test design, a point should be acknowledged by IFIs. The relevance and applicability of 'trigger points' for use in 'stressed scenarios' should be periodically reviewed by the IFI. Thus, this process should ensure that management of an IFI remains informed as to the suitability of existing liquidity management practices, the liquidity vulnerabilities facing their IFI and the appropriateness of mitigating actions currently employed. As part of this process, management of an IFI should consider appropriate remedial actions to address the IFI's vulnerabilities, and use these to develop and shape the IFI's response via the contingency funding and market response plan.

While it can provide valuable information regarding potential future outcomes similar to any other risk management tools, stress testing has limitations and cannot provide absolute certainty regarding the implications of assumed events and impacts.

Furthermore, management of an IFI should ensure that stress testing activities are not constrained to reflect past experiences, but instead consider a broad range of possibilities. No single stress test can accurately estimate the impact of all stressful events and circumstances. Therefore, an IFI should understand and account for stress testing limitations and uncertainties. It should also use stress tests in combination with other risk management tools to make informed risk management and business decisions for its resilience.

A future research is encouraged to explore further liquidity tools and risk management approaches for IFIs. Also, the position and impact of the structure of various IFI's Shariah compliant instruments in a market wide stress scenario, and how this is done in practice without compromising Shariah requirements of the relevant structure. In the next chapter (Chap. 14) I provide an overall conclusion about topics I discussed in this book highlighting key considerations that were addressed here, so l would invite you to hear my final thoughts in the next and final chapter of this book.

Chapter 14
Conclusion

14.1 Introduction

In accordance with the main objectives of this book, this study has explored, analysed, demarcated and defined financial and accounting principles in Islamic finance. The book has provided an original account and in-depth insights into the subject of accounting in Islamic economics and finance its origins, principles, theories, technical analysis and challenges contributing to knowledge and the accounting and Islamic economics and finance literature. The religious orientation and the governing faith-based rules are an important factor and key influencing aspect of the accounting processes in IFIs. The understanding of the products and services offered in the Islamic finance industry, their structure, operations and legal characteristics is essential for accounting procedures and reporting. This is also important for preparing regulatory documents and reports that should be submitted to regulators on regular basis. Bearing that in mind, this book has investigated how IFIs are embracing religious guidelines in their structure to drive the financial and accounting processes related to their business and operational model. Also, considering the outcome of the Shariah governance in order to be compatible, at the same time, with the International Accounting Standards (IAS) and IFRS. This Chapter provides an overview and a conclusion of the key discussion and analysis provided in the previous 13 chapters coupled with my final thoughts. It also outlines the book's key contributions and finally sets some policy implications.

14.2 Concluding Thoughts

In this section I provide an overview of the findings and discussion provided in this book, and my final concluding thoughts. However, first I would like to thank you for accompanying me throughout this journey and reading patiently all previous

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3_14

chapters, well done for that! I hope that I kept you motivated and maintained your interest throughout this book. So, let us recap some of the key conclusions and lessons.

It is not sufficient for IFIs to only implement Islamic finance principles to ensure that the Islamic banking system is fulfilling the Shariah requirements. Compliance with Shariah goes beyond this to ensuring that internal processes of accounting and financial accounting is done in accordance with this framework. IFIs should consider how international accounting standards and regulatory reporting, that usually do not give specific regards to Islamic finance and operations of Islamic banks, should be tailored accordingly to ensure it is fit for purpose.

As we have seen in Chap. 2, the concept of money from an Islamic perspective is different to the conventional theory that views money as a commodity. Islamic economics sets the rules clearly regarding money and its treatment, as such, money is not a commodity and cannot be. Money should be exchanged at par and the exchange of the counter values should be done immediately. When money is considered as a commodity, this then would justify the conventional concept of time value of money. Conventional economists are of the opinion that the present value of anything is greater than its future value, based upon the widespread human preference for the present possession of an asset over its possession in the future.

Therefore, conventional theory of money stresses that a sum of money loaned to someone should be repaid with a contractually stipulated increment. Similarly, the deferred price of a commodity should be higher than its cash price to compensate for the difference between its present and future values. Modern banking and finance are based on the concept of the time value of money. This value is considered a basic investment concept and also a basic element of the conventional financial theory and is fully compatible with the conceptual system of economic science. Shariah does not prohibit increment in the price of a commodity in any sale contract to be paid at a future date. What Shariah prohibits is making money's time value an element of a lending relationship where it is claimed as a predetermined value, this is a pure interest-based contract. In that event, Shariah requires that a loan is paid back in the same currency by which it was given without any increase. The value of paper currencies varies with changes in many variables over which the two parties of a loan contract usually have no control. Within the context of Islamic finance, this concept is established by the fact that Shariah prohibits the mutual exchange of gold, silver, or monetary values except when this is done simultaneously.

Transactions in the current financial system revolve around this concept, time value of money. This concept is reflected in the accounting standards, principles, treatment and financial reporting of all financial institutions. While it is conventionally justified due to the theory of money that advocates the concept of time value of money and views money as a commodity, this is not how Islamic economics and finance sees it. As Shariah compliant institutions, Islamic banks offer financial products that are asset-backed, which is based on investment and trade in the real economy. There is currently a clear contradiction between this fact and the manner in which Islamic banks do and prepare their accounting and financial reporting of their operations and the financial services they offer, which may currently follow the

practice of conventional interest-based financial institutions. IFIs should have the depth and appropriate understanding of the implications of Shariah requirements on the structure of financial products they offer and its accounting treatment. It is their responsibility to educate the market, adjust their accounting and financial reporting to drive the required change. That is still, currently, far from being achieved unless IFIs change their approach regarding this matter.

We also discussed (in Chap. 3) that gold as the original form of a monetary value, despite the variations in its quality and its various forms is a single genus. This also applies to silver and any other materials or items that hold a monetary value. Although the monetary value is the reason for it to be classed as a usurious item that is subject to certain restrictions under Shariah rules, this reason is not relevant to the argument of the unity of its genus as one single genus or multi-genera. As well as the constant diversity of its types and forms. Therefore, if another expensive metal, such as platinum replaces gold as a precious metal with a monetary value, then all the rules and issues I discussed, in terms of the exchange of counter values like for like and immediately without any delays, would fully apply to platinum.

The policy implications of the discussion presented in Chap. 3 are important due to its impact on financial transactions undertaken by IFIs, and also in relation to their trading in gold by offering gold investment products. This also would impact foreign currencies exchange services offered by IFIs and hedging transactions against currency exchange exposure in the financial market. In that respect, IFIs use an agreement called Shariah compliant currency purchase *wa'ed* agreement for hedging currency exposure.

I also discussed the view from an Islamic economics and jurisprudence regarding digital currencies and its treatment. This view about DCs was based on the discussion regarding paper money and how Islamic jurists view it, as either an independent monetary value or money that extends its value from the gold backing it. I have analysed the various positions and usage of digital currencies, its function as money and whether it has a value under Shariah. The conclusion we reached is that digital currencies, in the context illustrated, are not money, it rather acts like a token representing the value of that token only. It could be characterised as an item that has a value, but it is not money and its value is very unstable and highly fluctuates according to market conditions. Therefore, it would be subject to all conditions that apply to the object of a sale contract. Failure to meet such conditions, would render the transaction or trade invalid from a Shariah perspective.

My analysis also concludes, as presented in Chap. 4, that the Islamic accounting system was emerged as a requirement to organise the state finances. This need drove the development of the components of the Islamic accounting system in terms of its principles, basis and foundational structure. I also drew a comparison to current accounting practices with some lessons and conclusions regarding the accounting system in the Islamic economic thought. The accounting system in the Islamic economics and financial system deals with the resources and expenses of the state through recording, processing and reporting, thereof in accordance with the provisions of the Islamic law.

Furthermore, the accounting system in the Islamic economics aims to meet the needs of Muslims, and to fulfil one of their religious obligations related to one of the

pillars of worship, namely, Zakat. As well as to meet the needs of the state through the requirements to know and determine its assets, funds and how to collect them and distribute them, while ensuring controls and audit are in place. The process of accounting and financial accounting was known since the birth of the Islamic state with the establishment of *Bait al-Maal*, and the development began from the era of prophet Muhammad (pbuh). This development continued through the times of the first four Caliphs and beyond. The large expansion of the state and conquests also contributed to that development with the need for a tight financial and accounting system that is accurate, robust and efficient.

With that respect, the book-keeping process was known at the time of the Islamic rule 14 centuries ago, before it was known in the West, and before the advent of Basilio book by more than 131 years. In addition to knowing and implementing many types of accounting systems at that time. Most of the elements and principles of contemporary accounting systems were used, to a great extent, at the time of the Islamic rule. Therefore, it can be argued that such accountancy principles and components represent the basis of the modern-day accounting and financial accounting framework.

After laying down the foundations in the first four chapters and analysing the Islamic accounting history and its origins, my analysis moved to the practical implementation of the accounting requirements under Islamic finance. This analysis considered how such requirements could be applied to various Islamic finance principles and instruments in accordance with IFRS. To achieve this goal, I divided all types of Islamic financial principles into four categories characterised by their nature and Shariah requirements. Each category was discussed according to its various forms and structures as applied by IFIs. The first category is the equity-based instruments (Chap. 5), the second is the sale-based instruments (Chap. 6), the third is the debt-based instruments (Chap. 7) and finally the fourth is the charity-based instruments (Chap. 8).

It was clear that those principles and the underlying product structures require a specific treatment due to the nature and characteristics of such financial contracts. For example, a sale of an asset takes place with the ownership acquired by the IFI, then passed on to its client in another sale contract. This should constitute a real sale and true ownership of the underlying asset for the contract to be valid and acceptable under the Islamic commercial law. This, however, would create an accounting challenge for IFIs as such transactions are carried out in the conventional banking system as a loan agreement between the bank and its customers. This agreement, unlike the case with Islamic banks, does not stipulate ownership, possession, transfer of legal tile, existence of the sold asset and other Shariah requirements to affect this contract.

While we discussed various instruments related to equities and sale contracts with specific characteristics, the end financial outcome of most of them is the sale of an asset or usufruct or a benefit. Following conclusion of the contract in question a debt obligation is created, where the sale price is paid over time or in certain instalments to the IFI. The financial reporting of Islamic banks should appreciate these requirements and tailor its accounting practices and financial reporting accordingly.

On the other hand, the accounting treatment is based on the substance of the transaction itself and its economic outcome, even though it may differ in some specific details from the accounting standards and the loans contract practiced in the conventional market. The Conceptual Framework for Financial Reporting gives guidance on preparing financial statements and on the objective of financial reporting and the principles to be used in recognising and measuring the elements of financial statements, such as assets, liabilities, equity, income and expenses. The principles in the Conceptual Framework inform the content of individual standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

The Conceptual Framework first identifies the objective of general purpose financial reporting. Then, the Conceptual Framework sets out the qualities of useful financial information, and identifies that, to be useful, financial information must (i) be relevant to users and (ii) must faithfully represent the underlying economic substance of the transaction.

From the various principles that were discussed, one may conclude that in identifying and measuring the assets and liabilities of an IFI, the economic substance of transactions, rather than simply their legal form should be reflected in their accounting treatment and in financial statements. In other words, an Islamic bank will recognise an asset when it has control of a resource and expects to get the economic benefits associated with that resource, rather than when it has legal title to a specific asset. This element, however, may contradict some Shariah requirements, for specific financial instruments, where the benefit of an asset is derived from its legal ownership and assuming all ownership risks. Thus, property purchased outright with the assistance of a loan and property obtained under a long-term lease are both recognised as assets, irrespective of differences in actual ownership, because the underlying substance of the transaction results in similar economic results, whereas in both cases the entity has the risks and rewards of ownership. This should be carefully considered by IFIs, as in this example the risk and reward of ownership in Islamic financial instruments would be different to a loan agreement in the conventional context.

While the Conceptual Framework as discussed provides the overall guidance and judgement of financial transactions, it is not always relevant or has the answer to all Islamic financial instruments. Therefore, existing IFRS and IAS do not readily and fully fit to address all features of the Islamic finance products, particularly *takaful* and *waqf*. Thus, the substance of the transactions itself is what should be considered while factoring specific Shariah requirements for each financial instrument. The accounting treatment is, therefore, based on the substance of the contract itself and its economic outcome, although it may differ in some specific details from the accounting standards and conventional contracts, as practiced in the conventional market. The Conceptual Framework for Financial Reporting gives guidance on preparing financial statements and on the objective of financial reporting and the principles to be used in recognising and measuring the various elements of financial statements. The principles in the Conceptual Framework inform the content of individual standards and act as guidance for preparation of financial statements in formulating accounting policies and presenting financial statements.

A *waqf* manager or a takaful operator, e.g., would be required to disclose information that identifies and explains the amounts in its financial statements arising from *waqf* income or participants contributions to the *takaful* fund. The process used to determine the assumptions that have the greatest effect on the measurement of the recognised amounts in both *waqf* and *takaful*. When practicable, a takaful operator or a *waqf* manager should also give quantified disclosure of those assumptions. This would include the operating *takaful* model requirements or nature of the *waqf* assets, such as the accounting of *mudaraba* investment in a general *takaful* or life *takaful* and any reserve accounts, or the accounting of rental income and other investments of the *waqf* assets.

This discussion and conclusion has informed the analysis of the application of IFRS 9 regarding Islamic financial instruments as presented in Chaps. 9 and 10. Overall, it was clear that the classification and measurement of an instrument under IFRS 9 is determined by:

- The contractual cash flow characteristics of the financial asset, the so-called "solely payment of principal and interest test" ("SPPI") or in our coined term (SPPP); and
- The IFI's business model for managing the financial assets.

The technical analysis of IFRS 9 application to Islamic financial instruments required a thorough examination of key contractual clauses that are embedded in the various structures of such instruments. The analysis demonstrated the perceived compatibility of such Islamic finance instruments with IFRS 9. It also considered whether cash flows are compliant with the Solely Payments of Principle and Profit (SPPP) tests according to IFRS 9. The objective of IFRS 9 is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The conclusion of our technical analysis of IFRS 9 application to Islamic financial instruments was based on key considerations for the contractual basis of each instrument. Some of those key considerations are features linked to default, features linked to returns on the financial instrument "in the normal course of business", features linked to a prepayment due to specific events, features linked to a prepayment option and features linked to late payment.

However, the key question here that you may ask having read this book and the analysis provided is that, is this perceived compatibility between Islamic financial instruments and IFRS 9 real? The answer to this question would be, it is not always real. This is because of the differences in the structure and characteristics of each Islamic finance instrument and its Shariah requirements, on one hand. And, the divergence of the Islamic finance products to replicate the conventional products available in the market and apply the same contractual arrangements while maintaining a minimum level of compliance with Shariah on the other hand. The current legal and regulatory framework is not readily fit for Islamic finance, thus, most financial instruments introduced by IFIs would fall in a grey area as it would raise some uncertainty from the perspectives of regulatory, tax, legal and accounting

treatments. IFIs face this challenge on a regular basis and they are required to satisfy such challenges by incurring additional higher costs and engaging various experts to provide relevant legal, tax and accounting opinions. This is not always straightforward, as such experts would not take the risk to consider Shariah requirements for each instrument and use sound judgement, instead they try to squeeze and trim the Islamic finance instrument in order to fit in the conventional framework that they are trained in. Accordingly, IFIs would be under constant pressure to accept that and possibly compromise their Shariah compliance requirements for that legal opinion to be granted. As a result, Islamic financial instruments would be stripped out of its core Islamic finance value and Shariah objectives, it would appear to any external observer as hardly offering any real value compared with conventional instruments. The same outcome would result in when finance managers in IFIs do not use their judgement in applying accounting standards to products and instruments offered by their IFIs.

I also discussed the approach to preparing the ICAAP assessment for IFIs, its components, governance and risk management framework (Chap. 11). We concluded that IFIs should define a series of metrics regarding operational risk in terms of systems, transactions, financial, liquidity, credit, market and people. Shariah governance and possible risks associated with its governance framework should be an integral part to the operations of an IFI and its ICAAP assessment, rather than an add-on. IFIs are required to assess its RMF (risk management framework) regarding operational risk, which is designed to support the business in managing the risks in a way that is consistent with the IFI's risk appetite framework and Shariah governance. This determines how much risk the IFI wants to take as set by its board of directors, which is then reviewed annually.

The RMF for IFIs is underpinned by a comprehensive set of policies and protocols, which are used to establish the boundaries along with the accompanying management of operational risk that is supported by the Three Lines of Defence model. Each business function of the IFI would implement the policies through the documentation of procedures and controls, which are independently assessed and tested through a programme of reviews performed by governing functions of the IFI, such as Shariah compliance and audit, regulatory compliance and internal audit. The control framework over operational risk should be regularly strengthened under revisions that are implemented within the updated RMF. This includes further enhancements to existing KPIs and KCI's as well as reporting and clearly aligning to relevant risks and risk categories facing or could be faced by the IFI.

Stress testing of key risk drivers for IFIs is very important and should form part of its ICAAP assessment. The status of KPI's and KCI's against defined tolerance metrics is reported regularly under a risk and control self-assessment (RCSA) process to the relevant risk governance body, which enables monitoring of operational risk performance across the IFI. In addition, a suite of dashboards for ongoing monitoring would provide a valuable tool on a daily basis to enable the proactive monitoring of operational performance across all key operational processes and risks. One of the key risk appetite metrics, as was discussed, monitored by the board of an IFI is the financial cost of operational risk events and Shariah breaches,

which are identified within a defined incident/risk reporting and escalation process to the relevant governance body. Then for each risk event escalated to the relevant governance body the financial impact (both internal and external), as well as the conduct risk impact, should be assessed and reported. Hence, this process and the data collected on operational losses underpins the adequacy of the IFI's Pillar 1 operational risk capital requirement and inform its ICAAP assessment.

I also discussed (Chap. 12) the approach to preparing the ILAAP, recovery options and resolution strategies assessment for IFIs, its components, governance and requirements. Our analysis concluded that in view of the major role of the ILAAP, recovery plan and resolution strategy for IFIs, all of its key elements are expected to be approved by the management governing body of an IFI. Senior management and relevant business committees are expected to discuss and challenge these documents in an effective way. Each year, management of an IFI is expected to provide its assessment of the liquidity adequacy of the IFI, supported by ILAAP outcomes and any other relevant information, by producing and signing a clear and concise statement, the liquidity adequacy statement (LAS). Management of an IFI also has overall responsibility for the implementation of the ILAAP, and it is expected to approve an ILAAP governance framework with a clear and transparent assignment of responsibilities, adhering to the segregation of functions. The governance framework is expected to include a clear approach to the regular internal review and validation of the ILAAP, recovery options and resolution plan.

The quantitative and qualitative aspects of the ILAAP are expected to be consistent with each other and with the IFI's business strategy and risk appetite. The ILAAP is expected to be integrated into the business decision-making and risk management processes of the IFI, as well as, incorporating Shariah non-compliance risks. The ILAAP is expected to be consistent and coherent throughout the group of an IFI. IFIs are expected to maintain a sound and effective overall ILAAP, recovery plan and resolution strategy architecture and documentation of the interplay between the ILAAP elements and the integration of the ILAAP into the IFI's overall management framework. The ILAAP is expected to support strategic decision-making and, at the same time, be operationally aimed at ensuring that an IFI maintains adequate liquidity on an ongoing basis, thereby promoting an appropriate relationship between risks and rewards. All methods and processes used by IFIs to steer its liquidity as part of the operational or strategic liquidity management process are expected to be approved by the IFI's SSC, thoroughly reviewed, and properly included in the ILAAP and its documentation.

Furthermore, A recovery and resolution plan is only effective if the key elements that support it are embedded in an IFI's day-to-day operations, and an awareness of the recovery and resolution plan objectives and principles underpins its daily operations and strategic planning. An effective recovery and resolution plan is not one-size-fits-all and is not designed in a vacuum. It should consider the specific Shariah requirements and governance framework of IFIs.

In order to address the above required quantitative and qualitative assessments in IFIs, I also discussed stress testing (Chap. 13), its types whether macro or micro, its dynamics and reverse stress testing. With that respect we concluded by emphasising

the importance of stress testing in IFIs and its impact. Stress testing for liquidity risk is extremely essential to understand the behaviour of the balance sheet and its components during extreme stress scenarios, which are now becoming more frequent. Stress tests, when properly designed and executed, enable the management of an IFI to have contingency plans in place. These plans allow the management of an IFI to take into consideration scenarios where things could go wrong and the possible resulting impact.

A well-understood limitation of stress testing, according to the findings of this book, is that there are no probabilities attached to the outcomes. Stress tests help answer the question "How much could be lost?" Islamic finance practitioners fully appreciate that the answer to this question is not as informative as would be the answer to the question "How much is likely to be lost?" The lack of probability measures exacerbates the issue of transparency and the seeming arbitrariness of stress test design, a point should be acknowledged by IFIs. The relevance and applicability of 'trigger points' for use in 'stressed scenarios' should be periodically reviewed by the IFI. Thus, this process should ensure that management of IFIs remains informed as to the suitability of existing liquidity management practices, the liquidity vulnerabilities facing their IFIs and the appropriateness of mitigating actions currently employed. As part of this process, management of IFIs should consider appropriate remedial actions to address the IFI's vulnerabilities, and use these to develop and shape the IFI's response via the contingency funding and market response strategy.

While it can provide valuable information regarding potential future outcomes similar to any other risk management tools, stress testing has limitations and cannot provide absolute certainty regarding the implications of assumed events and impacts. Furthermore, IFIs should ensure that stress testing activities are not constrained to reflect past experiences, but instead consider a broad range of possibilities. No single stress test can accurately estimate the impact of all stressful events and circumstances. Therefore, an IFI should understand and account for stress testing limitations and uncertainties. It should also use stress tests in combination with other risk management tools to make informed risk management and business decisions for its resilience.

14.3 Book Contribution

This book has presented very important theoretical (Chaps. 2, 3 and 4), empirical (Chaps. 5, 6, 7, 8, 9 and 10) and practical contributions (Chaps. 11, 12 and 13) that demonstrate the novelty, originality, relevance and validity of the underlying study. The first important contribution to existing literature is regarding the theory of money and its function. The book analyses and discusses in-depth the concept of money in Islamic economics and jurisprudence in a manner has not been explored before in the literature. It explains the factors that form the concept of money and how the time value of money is measured in Islamic economics and finance.

Through which the book examines the concept of money and digital currency (DC) within the theory of money and how it is enacted in a faith-based context amid differences of opinions among its actors. Additionally, the book contributes to studies of money, accounting and auditing in faith-based organizations, by identifying two core concepts of today's money as not being a commodity in contrast to the capitalist theory of money, and how this outcome would shape the faith-based view regarding the new phenomenon of digital currency. The concept of money and how DCs are viewed by the faith-based rules would allow coordination among various global actors with intersecting religious values, logics and interests.

The second contribution that this book provides to existing literature, with practical implications to IFIs, is in relation to demarking the concept of money in the context of faith-based rules. This is done by employing the theory of money and discussing the implications of this theory under the faith-based rules. By doing that the book established and provided a robust academic analysis of DCs to formulate the view about it in the context of the faith-based rules and its implications. The book then extends the discussion to clarify the impact of the argument provided regarding the concept of paper money on currency trading. By doing so, it addresses the new phenomenon of DC in order to answer the unanswered question about how DCs fit within the concept of money from an Islamic finance perspective in light of the argument of paper money as being a single genus.

The third contribution of this book is explaining what is meant by the term "faith-based accounting", together with a discussion of its origins, characteristics and components. The book provides an important contribution by explaining accounting as a value-based science rather than a value-free object or abstract by examining the accounting principles of a faith-based accounting system. The faith-based accounting can be defined as the "accounting process", which provides appropriate information to stakeholders of an IFI. Such information enables them to ensure that the IFI is continuously operating within the bounds of the faith-based rules and delivering on its socioeconomic objectives. Faith-based accounting is also a tool, which enables its participants to evaluate their own accountabilities under such religious rules, in respect of inter-human/environmental and financial transactions.

The fourth contribution is provided through analysing Islamic financial instruments offered by Islamic financial institutions (IFIs), and explaining how a reconciliation between the religious rules and IFRS 9 requirements could be achieved. The book provides a further empirical contribution by examining and explaining what is meant by the accounting conceptual framework of "economic substance", in relation to financial reporting and analysis in the context of faith-based financial institutions. It concludes that faith-based financial reporting under IFRS 9 is viewed as a value-based science rather than a value-free object. The practical implication of the contributions of this book would require religious financial institutions to tailor their financial reporting under IFRS 9 to provide a measurable, accurate and relevant financial information to their participants.

Finally, based on the findings of this book, a practical framework is provided to help IFIs undertake their ICAAP, ILAAP, recovery and resolution plans and stress testing in accordance with Shariah governance. This contribution provided the first

in-depth guide for IFIs to assess and address their capital and liquidity requirements in accordance with Shariah rules and their operational model. It ensures that Shariah governance is tailored in such assessments providing the relevant steps, factors, stress scenarios and outcomes that IFIs should consider according to their operating model and jurisdiction of incorporation.

14.4 Policy Implications

The policy implications of the findings and analysis of this book would be critical for the Islamic finance industry and its institutions from a currency trading perspective and how they view digital currencies, IFRS application, accounting, reporting and capital and liquidity assessments. Such policy implications would be of interest to financial regulators, policy makers, AAOIFI, IFSB, academics, IFIs and banking practitioners (Shariah compliance managers, risk and audit managers and finance managers). The correct treatment of such transactions would be reflected in their accounting treatment on the balance sheet, accounting reporting and disclosures. Furthermore, as IFIs are subject to religious rules that apply to the Islamic commercial law, they can only operate within that religious framework. As such, the foreign currencies hedging agreement that I briefly explained, and other currency exchange services and transactions, including digital currencies trading, are subject to such religious rules and the implications of the discussion I presented in this book. The controls of following this religious guidance and rules is covered by a religious audit review undertaken regularly in IFIs by experts in the Islamic commercial law. This audit and accountability review is part of the governance framework of all IFIs that they have to comply with. Non-compliance with such Shariah requirements by IFIs would invalidate such transactions and would financially impact the IFI. This is not to mention possible major reputational risk, as the Shariah compliance audit report would state that the institution was not compliant with Shariah in such aspects of the business. This final audit report is usually published in the annual financial accounts of an IFI that are made public. Hence, the correct understanding and implementation of the issues I discussed in this book is of a paramount importance for the operations of IFIs and maintaining their religious compliance and integrity.

The policy implications presented in this book are important due to its impact on financial transactions undertaken by IFIs, and also in relation to their trading in money and various currencies. This also would impact foreign currencies exchange services offered by IFIs and hedging transactions against foreign currencies exchange exposure in the financial market.

The discussion in this book helped shaping the position from an Islamic economics and its relevant faith-based rules point of view regarding the theory of money in contrast to the capitalist theory of money and commodity, and as a result the accounting treatment of digital currency (DC). The conclusion is that DCs are not money, it rather acts like a token representing the value of that token only. It could be characterised as an item that has a value, but it is not money and its value highly

fluctuates according to manipulated market conditions. Therefore, it would be subject to all conditions that apply to the object of a sale contract. Failure to meet such conditions would render the transaction or trade impermissible from a faith-based perspective. However, IFIs could benefit from the block-chain technology used as platforms for DCs. This technology could be used to offer Shariah compliant products and services, providing more secure payment options and better customers interaction.

This is important as the correct treatment of such transactions would have serious implications to the accounting treatment on the balance sheet, accounting reporting and disclosures of IFIs. As such, all their transactions and trades are impacted and would be subject to this discussion and the conclusion reached here in this book. For example, how the faith-based audit in IFIs would report on accounts of IFIs that are used to buy DCs, if such currencies are not permissible under their religious governance framework. The policy implications of this would be of importance for the Islamic finance industry and its institutions from a currency trading perspective and how they view DCs. As such, the foreign currencies hedging agreements, and other currency exchange services and transactions, including digital currencies trading, are subject to such religious rules and the implications of the discussion this book presents.

The policy implications of the discussion presented in this book in relation to paper money being a single genus or multi-genera is also important due to its impact on financial transactions undertaken by IFIs, and in relation to their trading in gold by offering gold investment products. This also would impact foreign currencies exchange services offered by IFIs and hedging transactions against foreign currency exchange exposure in the financial market. The controls of following this religious guidance and legal rules is covered by a religious audit review undertaken regularly in IFIs by expert auditors. Those, auditors would be required to assess this implication on the currency transactions executed by IFIs.

This book additionally provides a practical guide for IFIs in conducting the required IFRS 9 analysis and test in their accounting and financial reporting according to the structure and operation of their products. IFIs should tailor IFRS 9 and other accounting standards and reporting requirements to provide accurate and relevant information of the financial instruments offered by them to all market participants. While IFIs could use the concept of economic substance over form to conduct their analysis and provide the ground for financial reporting under IFRS 9, they should be cognisant of the subtle differences that cannot be reconciled from a Shariah compliance perspective. Such differences should be reported accordingly as this what affirms their identity as faith-based financial institutions. The book also provides a step by step guidance and a framework for IFIs on how to prepare, assess and execute their ICAAP, ILAAP, recovery and resolution plans and undertake relevant stress testing. These are very important processes that IFIs must undertake and update on annual basis. This guide would help all stakeholders in the Islamic finance industry understand and appreciate the requirements and considerations of IFIs in meeting such obligations. It ensures long term resilience and survival of an IFI in the face of market shocks.

Glossary

Akhlaq Moralities and ethics.

Amanah Refers to deposits in trust. A person can hold a property in trust for another, sometimes by express contract and sometimes by implication of a contract. Current accounts may be regarded as Amanah (trust).

Bai Sale or exchange.

Bai' al-Dayn A transaction that involves the sale and purchase of securities or debt certificates.

Batil Invalid (contract).

Commutative contract A contract of exchange for value between two parties.

Daman/Dhaman A guarantee or security.

Darura The Shariah principle of necessity which may be applied in extenuating circumstances to achieve approval for a concept.

Fasid Voidable (contract).

Fatwa (pl. Fatawa) A legal pronouncement in Islam provided by an Islamic legal specialist.

Fiqh The science of Islamic jurisprudence or Islamic law.

Fiqh al Muamalat Islamic commercial jurisprudence or the rules of transacting in a Shariah-compliant manner.

Gharar It means any element of uncertainty in any business or a contract which is otherwise preventable or avoidable.

Hadith (pl. Ahadith) Words of the Prophet (SAW), traditions. The narrative record of the sayings and actions of the Prophet Muhammad (PBUH).

Halal Anything permitted by the Shariah. Lawful; one of the five major Shariah categorisations of human acts.

Hanafi One of the Islamic schools of jurisprudence.

Hanbali One of the Islamic schools of jurisprudence.

Haram Anything prohibited by the Shariah. Unlawful; one of the five major Shariah categorisations of human acts.

Hawala/Hawalah Literally, it means transfer; legally, it is an agreement by which a debtor is freed from a debt by another person accepting to receive a transfer of the

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3

obligation, or the transfer of a claim of a debt by shifting the responsibility from one person to another—contract of assignment of debt. It also refers to the document by which the transfer takes place.

Hijra The emigration of the Prophet Muhammad (PBUH) and his followers to Medina.

'Inan (A type of Sharikah) It is a form of partnership in which each partner contributes capital and has a right to work for the business, not necessarily equally.

Ijara Mawsoofa Bil Thimma A lease agreed upon, perhaps even with a deposit, for delivery and use of an asset in the future.

Ijara Muntahia Bi Tamleek This is a form of leasing contract used by Islamic financial institutions which includes a promise by the lessor to transfer the ownership of the leased property to the lessee, either at the end of the term of the lease period or by stages during the term of the contract. The undertaking or the promise does not become an integral part of the lease contract in order to make it conditional. The rental, as well as the purchase price, is fixed in such a manner that the bank gets back its principal sum along with some profit, which is usually determined in advance.

Ijara/Ijarah Leasing. Sale of a definite usufruct of any non-monetary asset in exchange for definite reward.

Ijma/Ijm'a Consensus of all or majority of the leading qualified jurists on a certain Shariah matter in a certain age.

Ijtihad This refers to an endeavour (literally toil) of a qualified jurist to derive or formulate a rule of law to determine the true application of Shariah in a matter on which the Holy Quran and the Sunnah is not explicit.

Illah Underlying rationale.

Istihsan Judicial preference for one legal analogy over another, usually to give preference for the public welfare.

Istijrar A contract between a supplier and a client whereby the supplier supplies a particular item on an on-going basis on an agreed mode of payment until they terminate the contract. It is also applied between a wholesaler and a retailer for the supply of a number of agreed items.

Istisn'a This is a contractual agreement for manufacturing goods and commodities, allowing cash payment in advance and future delivery or a future payment and future delivery. A manufacturer or builder agrees to produce or build a well-described good or building at a given price on a given date in the future. Price can be paid in installments, step by step as agreed between the parties. Istisn'a can be used for providing the facility for financing the manufacture or construction of houses, plants, projects and building of bridges, roads and highways.

Manfa'a/Manfaa Usufruct or benefit derived from an asset.

Maqasid A contract which is unenforceable until authorised.

Muamalat Activities which are not explicitly governed by the Shariah with respect to worship.

Mudaraba al Muqayyada Restricted Mudaraba—applies when the agreement relates to a specific business or place and it is contractually limited by time, place, partner and deal type.

Mudaraba al Mutlaqa Unrestricted Mudaraba—where the Mudarib is free to act within traditional Shariah parameters.

Mudaraba/Mudarabah/Mudharabah (Trust Financing) This is an agreement made between two parties one of whom provides 100% of the capital for a project and has no control over the management of the project; another party, known as a Mudarib, manages the project using his entrepreneurial skills. Profits arising from the project are distributed according to a predetermined ratio, and financial losses are borne by the provider of capital.

Mudarib Mudarib manager in a Mudaraba contract. The Mudarib does not invest capital but provides skill and effort. The Mudarib is a co-investor in a bilateral Mudaraba.

Murabaha (cost plus financing) This is a contract sale between the bank and its client for the sale of goods at a price which includes a profit margin agreed by both parties. As a financing technique it involves the purchase of goods by the bank as requested by its client. The goods are sold to the client with an agreed mark-up.

Musawamah Bargaining. A general kind of sale in which the price of the commodity to be traded is bargained between the seller and the purchaser without any reference to the price paid or cost incurred by the former.

Musharaka Muntahiya Bittamleek/Diminishing Musharaka or Musharaka Mutinaqisa A form of partnership whereby one partner buys out the shares or units of the other according to a specific schedule.

Musharaka/Musharakah This Islamic financing technique involves one or more parties who both provide capital towards the financing of a project or business. Both parties share profits on a pre-agreed ratio, but losses are shared on the basis of contributed capital. Management of the project may be carried out by both the parties or by just one party. This is a very flexible arrangement where the sharing of the profits and management can be negotiated and pre-agreed by all parties.

Muwaada/Mua'hida Bilateral promises, two unilateral promises/undertakings extended by two parties on the same subject matter.

Naseeyah Delay.

Parallel Salam A contract taken out to offset the delivery implications of the Salam contract.

Qard Hassan A form of loan identified in the Quran as a means of charity or helping others in need; an interest-free loan that would be paid back on demand or at the agreed time.

Qimar Speculation.

Qiyas Literally this means measure, example, comparison or analogy. Technically, it means a derivation of a rule on the analogy of an existing law if the basis ('illah) of the two is the same. It is one of the tools of Islamic law.

Quran Text of God, the primary source for jurists. The Book of Divine Revelation that was delivered to humankind by the Prophet Mohammed (PBUH).

Rab al Mal The party providing the finance, the investor.

Riba An excess or increase, interest. Technically, it means an increase over the principal in a loan transaction.

Riba Al Naseeyah/Riba Al-Nasiah (Riba Al-Quran and Riba Al-Jahiliyyah) Riba Al-Nasiah or riba of delay is due to an exchange of money today for more at a later date. Interest, in all modern banking transactions qualifies as Riba Al-Nasiah.

Riba Al-Fadl (Riba al-Quran/Riba al-Jahiliyyah) Riba Al-Fadl (excess) is an exchange of similar commodities, defined as money or certain foods, in unequal amounts. Its prohibition is meant to close the door to riba in lending.

Ribawi Susceptible or containing riba.

Ribawi commodities Gold, silver, wheat, barley, dates, salt; anything which is used as money.

Sadaqat Voluntary charitable donations.

Sahih Valid (contract).

Salaf In its widest application, Salaf is another name for Salam (described below).

Salam A contract for the purchase of a commodity for deferred delivery in exchange for immediate payment according to specified conditions.

Sarf Literally this means exchange. The 'rules of sarf' restrict the methods of exchanging and depositing money in order to prevent riba. These rules are based on the Hadith.

Securitisation The conversion of assets into financial instruments which may be sold in a manner that cuts the asset off from the seller, making it truly the property of the buyer of the financial instrument.

Shariah Islamic canon law derived mainly from the Quran and the Hadith practice and traditions of the Prophet Mohammed (PBUH).

Shirkah An alternative term for Musharakah. A partnership or company.

Shirkat al Aqd Partnership by mutual agreed contract.

Shirkat al Milk Partnership of two or more owners of a property held in common.

Sukuk The Sukuk is a document or certificate evidencing an undivided pro rata ownership of an underlying asset. Usually referred to as an Islamic bond.

Sunnah/Sunna Custom, habit or way of life. Technically, it refers to the utterances of the Prophet Muhammad (PBUH) other than the Holy Quran known as Hadith, or his personal acts, or sayings of others, tacitly approved by the Prophet.

Ta' Awun Co-operation, an Islamic insurance scheme is based upon cooperation for mutual protection of the members.

Tabarru' A donation/gift the purpose of which is not commercial. Any benefit that is given by a person to another without getting anything in exchange is called Tabarru'. The concept of Tabarru' has been applied within Takaful (Islamic insurance) schemes.

Takaful A Shariah-compliant system of mutual protection, insurance, in which the participants donate part or all of their contributions to a common fund. These may

be used to pay claims for damages suffered by some of the participants. The company's role is restricted to managing the insurance operations and investing the insurance contributions.

Tawarruq A form of reverse Murabaha which is tolerated as it involves three sales contracts and three independent parties, frequently used to deliver money to a person wishing to avoid borrowing at interest. Considered objectionable by most Muslim scholars.

Ummah The collective nation of Islamic states. The Islamic universal community.

Underlying asset An asset which is the object of a contract, a specific Sukuk issuance, derivative, or guarantee.

Usufruct The right to enjoy the benefit of property which is vested in another person.

Usul al-fiqh Sources of law.

Wa'd Promise, an undertaking by one party regarding future actions.

Wadia/Wadiah Safe custody/resale of goods with a discount on the original stated cost.

Wakala/Wakalah A contract of agency in which one person appoints someone else to perform a certain task on his behalf, usually against a certain fee.

Wakil/Wakeel Agent, representative for commercial purposes with a capacity similar to a power of attorney.

Waqf (pl. Awqaf) Waqf investments or properties are charitable grants with infinite life which may be used to support specific beneficiaries designated by the grantor.

Wujuh Literally, face. This may be interpreted in commercial environments as goodwill or credit for partnership or accounting purposes.

Zakat/Zakah A religious obligation of alms-giving on a Muslim to pay 2.5% of certain kinds of his wealth annually to one of the eight categories of needy Muslims. Literally, it means blessing, purification, increase, or cultivation of good deeds. In Shariah, it is an obligation to pay Zakat on wealth above a specified minimum for defined beneficiaries, as noted in the Quran.

References

AAOIFI. (2014). *Shariah Standards.* Accounting and Auditing Organization for Islamic Financial Institutions*,* AAOIFI*:* Bahrain.

Abdul Rasoul, Ali. (1980). *Economic Principles in Islam*, 2nd ed., Arab Thought House, Cairo.

Abdul Salam, M. Saeed. (1980). *Accounting in Islam*, Dar al-Bashayyer, Jeddah.

Abdul Wahab, M. Taher. (1984). Administrative Control in the Islamic Administrative System, *Proceedings of the Symposium on Islamic Systems*, Part I, Abu Dhabi, 18-20-0 1405 AH/11-13 November 1984, p. 255.

Abu Zahra, Muhammad. (1977). *Ownership and the Theory of Contract*, Cairo: Dar al-Fikr al-Arabi.

Abuznaid, Ahmad. (2009). *Business Ethics in Islam: The Glaring Gap in Practice*, in: *International Journal of Islamic and Middle Eastern Finance and Management,* 2(4), pp. 278-288.

Ahmad, Ausaf. (1993). Contemporary Practices of Islamic Financing Techniques*, Islamic Research and Training Institute,* No. 20, 19 – 59.

Ahmad, Faruq and Kabir Hassan. (2006). The Time Value of Money Concept in Islamic Finance, *The American Journal of Islamic Social Sciences*, January 2006.

Ahmad, Mushtaq. (1999). *Business Ethics in Islam*, New Delhi: Kitab Bhavan.

Al-Abdari, M. Al-Mawaq. (1995). *Al-Taaj wa al-Ikleel*, Dar al-Kutub al-'Ilmiyyah: Beirut.

Al-Abhary, Atheer El-ddin. (2009). *Mughni al-Tullab Shareh Matin Iesaghouji*, Dar Al-Beiruti: Beirut.

Al-Akhdari, Abdul Rahman. (2006). *Al-Sullam Al-Munawraq fi 'Elm al-Mantiq*, Dar Ibn Hazm: Damascus.

Alamad, Samir. (2017a). *Financial Innovation and Engineering in Islamic Finance*, UK, Springer.

Alamad, Samir. (2017b). Islamic Finance Ethics and Perception of Western Consumers, European Journal of Islamic Finance, No. 6, 2017.

Alamad, Samir. (2016). Risk Management Methodologies: An Empirical Macro-prudential Approach for a Resilient Regulatory Framework for the Islamic Finance Industry, in **Zulkhibri,** Muhamed et al. (editors), *Macroprudential Regulation and Policy for the Islamic Financial Industry Theory and Applications*, UK: Springer.

Al-Ashkar, M. Othman. (1998). *Buhouth Fiqhiyyah fi Qadaya Iqtisadiyyah Mu'asira*, Dar al-Nafais: Amman.

Al-Baghawi, Abu Muhammad. Ibn Mas'ood al-Farra` (1983). *Commentary of the Sunnah*, Damascus: Al-Maktab al-Islami Beirut.

Al-Bahouti, Mansour. (1983). *Kachaaf al-Qinaa'*, 'Alam al-Kutub: Beirut.

Al-Bajiy, Abu al-Waleed. Suliman al-Maliki. (1913). *Al-Muntaqa Commentary on Malik Muwatta*`, Egypt, Al-Sa'adah Publication.

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3

Al-Baz, Abbas Mohamed. (1999). *Ahkaam Saref al-Noqood wa al-'Umulaat*, Dar al-Nafais, Jordan.
Al-Bouti, M. Saeed. (2005). *Dawabit al-Maslaha*, Dar al-Fikr: Damascus.
Al-Bouti, M. Saeed. (2009). *Al-Bidayaat*, Dar al-Fikr: Damascus
Al-Bukhari, M. (1985). *Sahih Al-Bukhari*, Damascus: Dar Al-Fikr.
Al-Dessouki, Arafa. (1901), *Footnote of the Dessouki on the Great Explanation of Aldrdeer*, the Amiri Press: Egypt.
Al-Dimyatty, Bakri. (1989). *Hashiyat I'anat al-Talibeen fi Hall Alfaz Fateh al-Mu'een*, Dar al-Fikr: Beirut.
Alexandari, M. bin Abdul Wahid. (1975). *Explanation of Fateh al-Qadeer*, Dar al-Kutub al-'Ilmiyyah: Beirut.
Al-Ghazali, M. bin Mohammed. (1997). *Al-Mustasfa men 'Elm al-Asoul*, Al-Risalah: Beirut.
Alhabshi, Syed Othman; Sharif, Kamaruddin; Razak, Hamzah Abdul; Ismail, Ezamshah. (2012). *Takaful: Realities and Challenges*, Petaling Jaya: Pearson Malaysia.
Al-Hasab, F. Abbas. (1984). Al-Mawardi in the Theory of General Islamic Management, *Arab Organization for Administrative Sciences*, Department of Research and Studies, No. 282, Amman, Jordan.
Al-Hithami, Ibn Hajar. (2010). *Tuhfat al-Muhtaj Shareh al-Minhaj*, Dar Sader: Beirut.
Ali, Engku Rabiah Adawiah Engku; Odierno, Hassan Scott P.; Ismail, Azman. (2008). *Essential Guide to Takaful (Islamic Insurance)*, Kuala Lumpur: CERT.
Ali, Robleh, John Barrdear, Roger Clews, and James Southgate. (2014). The Economics of Digital Currencies, *Bank of England Quarterly Bulletin*, Q3.
Ali, Salman S. (2012a). State of Liquidity Management in Islamic Financial Institutions, *Islamic Economic Studies*, 21 (1), 63-98.
Ali, Wan Abdul Rahim Kamil Wan Mohamed (ed.). (2012b). *Shariah Rulings and Opinions on Ijarah, Musharakah and Mudarabah*. [Islamic Capital Market Series]. Petaling Jaya: Thomson Reuters Malaysia (Sweet & Maxwell Asia).
Al-Jaleel, Muqdad A. Yahya. (2001). Historical Development of Accounting in Iraq, *Journal of Development of Rafidain*, No. (63), 2001, p. 154.
Al-Jarjani, Ali. bin Mohammed. (1996). *Al-Ta'rifaat (Definitions)*, Dar al-Kitab al-Arabi: Beirut.
Al-Jawhari, Isma'il. Ibn Hammad. (1979). *Al-Sihah Taj al-Lughah wa Sihah al-Arabiyyah*, Beirut: Dar al-'elm Lilmalyeen.
Al-Juwaini, Abu al-Ma'ali. (2007). *Nihayat al-Matlab fi Derayat al-Madthab*, Ministry of Awqaf and Religious Affairs: Qatar.
Al-Kafwi, Abi al-Baqa`. (1982). *Al-Kulliyat*, Publications of the Ministry of Culture: Damascus.
Al-Kasani, Abi Bakr. bin Masoud. (1910). *Bada`a' al-San`aa'*, al-Jamaliah Press: Egypt.
Al-Manea' Abdullah. bin Sulaiman. (1996). *Research in Islamic Economics*, al-Maktab al-Islami: Riyadh.
Al-Maqdisi, Ibn Qudaamah. Shams al-Din. (1984). *Al-Shareh al-Kabeer*, Dar al-Fikr: Beirut.
Al-Maqdisy, Muwaffaq al-Din. (1984). *Al-Mughni*, Dar al-Fikr: Beirut.
Al-Mardaoui, Abi el-Hassan. (1957). *Al-Insaf*, Dar Ihya` al-Turaath al-Arabiya: Beirut.
Al-Nawawi, Yahya. Ben Sharaf. (2008). *Al-Majmou'*, Al Tadamon Press, Egypt.
Al-Nuwairi, Shahabuddeen A. Abdel Wahab. (1998). *End of Literature in the Arts of Literature*, Egyptian General Establishment of Composition and Publishing, Cairo.
Al-Qalqashandi, Abu al-Abbas bin Ali. (1963). *Sobh al-A'shi in the al-Ansha industry*, photocopy, Emiri Edition, Cairo.
Al-Qazwini, M. bin Yazid. (1999). *Sunan Ibn Majah*, Dar al-Salaam: Riyadh.
Al-QuraDaghi, Ali. (2009). *Researches in Islamic Economics*, Dar al-Bashaer: Beirut.
Al-Qurtubi, M. ibn Ahmad. (2016). *Bidayatu al-Mujtahid wa Nihayatu al-Muqtasid*, Dar al-Kuttab al-al-'Ilmiyyah: Beirut.
Al-Saleh, Subhi. (1987). *Islamic Systems - Its Origin and Evolution*, 4th ed., Dar Al-Ilm for Millions, Beirut.
Al-Sarkhasi, Ahmad. ibn Abi Sahl. (1973). *Osoul al-Sarkhasi*, Dar al-Ma'arifah: Beirut.

Al-Sayyed, Ali Abdel-Moneim. (1999). *Economies of Money and Banks*, Academy of Publishing: Amman.
Al-Sayyed, H. Mowaffaq. (1982). *Micro Economic Analysis*, Ibn Hayyan Press: Damascus.
Al-Zarqa, Mustafa. (1963). *Al-Madkhal al-Fiqhi al-'Aam*, Cairo: Matba'et al-Hayaat.
Al-Zuhaili, Wahba. (2002). *Contemporary Financial Transactions*, Dar al-Fikr: Damascus.
Al-Zuhaili, Wahba. (2003). *Financial Transactions in Islamic Jurisprudence*, Dar al-Fikr: Damascus.
Archer, Simon; Karim, Rifaat Ahmed Abdel; Nienhaus, Volker (eds.) (2009). *Takaful Islamic Insurance - Concepts and Regulatory Issues*. Singapore: John Wiley (Asia).
Attieh, M. Kamal. (1982). *Accounting Systems in Islam,* Knowledge Establishment in Alexandria, Alexandria.
Attieh, M. Kamal. (1983). *Accounting Systems in Islam*, 2nd ed, Al Ma'aref Establishment, Alexandria.
Attieh, M. Kamal. (1984). *Accounting Companies in Banks in the Islamic System*, International Federation of Islamic Banks, Al-Aref Establishment, Alexandria.
Ayub, Muhammad. (2007). *Understanding Islamic Finance*, Chichester: Wiley.
Bank for International Settlements (BIS). (2000). *Stress testing by large financing institutions: current practice and aggregation issues*. Available from: <http://www.bis.org/publ/cgfs14.pdf> [Accessed on 12 July 2016].
Bank for International Settlements (BIS). (2008). *Basel Committee on Banking Supervision-Principles for Sound Liquidity Risk Management and Supervision*, September 2008.
Bank for International Settlements (BIS). (2009). *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2009.
Bank for International Settlements (BIS). (2010a). *Basel Committee on Banking Supervision-International framework for liquidity risk measurement, standards and monitoring*, December 2010.
Bank for International Settlements (BIS). (2010b). *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010.
Bank of England. (2014). *Stress testing in the UK banking system: 2014 results*. Available from: <http://www.bankofengland.co.uk/financialstability/Documents/fpc/results161214.pdf> [Accessed on 11 July 2016].
Barfield, Richard and Shyam, Venkat. (2008). Liquidity risk management, *The Journal-Global perspectives on challenges and opportunities*, (2008). Available from: http://www.pwc.com/gx/en/banking-capital-markets/pdf/Liquidity.pdf [Accessed on 7 July 2016].
BCBS. (2006). *The management of liquidity risk in financial groups*. Available through: <http://www.bis.org/publ/joint16.pdf> [Accessed on 14 January 2016].
BCBS. (2009). *Principles for sound stress testing practices and supervision*. Available from: <http://www.bis.org/publ/bcbs147.pdf> [Accessed on 10 November 2015].
Beekun, Rafik Issa. (1997). *Islamic Business Ethics*, Herndon: International Institute of Islamic Thought.
Best, John. (2018). *Breaking Digital Gridlock*, UK: Wiley & Sons.
Billah, Mohd. Ma'sum. (2006). *Shari'ah Standard of Business Contract*, Kuala Lumpur: A.S. Noordeen.
Bin-Bayyah, Abdullah. (2010). *Maqasid al-Mu'amalaat Makassed*, Al Furqan Foundation: Cairo.
Bjerg, Ole. (2015). How is Bitcoin Money? *Theory, Culture & Society Journal*, Vol 33, Issue 1, Pages 53-72.
Board of Governors of the Federal Reserve System. (2012). *Guidance on stress testing for banking organisations with total consolidated assets of more than $10 Billion*. Available from: <http://www.federalreserve.gov/bankinforeg/srletters/sr1207a1.pdf> [Accessed on 18 November 2015].
Borio, Claudio; Mathias, Drehmann; and Kostas Tsatsaronis. (2012). Stress-testing macro stress testing: does it live up to expectations? *BIS working Papers*, No. 369, Available from: <http://www.bis.org/publ/work369.pdf> [Accessed on 20 February 2016].
Brito, Jerry and Andrea Castillo. (2013). *Bitcoin: A Primer for Policymakers*, Fairfax, VA: Mercatus Center. [Online] Available: http://mercatus.org/publication/bitcoin-primer-policymakers (1 June 2018).

Burhan al-Deen, Ibrahim Ibn Musa al-Hanafi. (1981). *Al-Is'af fi Ahkami al-Awqaf*, Beirut: Dar al-Ra`ed al-Arabi.
CEBS. (2010). *CEBS Guidelines on stress testing*. Available from: <https://www.eba.europa.eu/documents/10180/16094/ST_Guidelines.pdf> [Accessed on 7 June 2016].
Cronin, David. (2012). The New Monetary Economics Revisited, *Cato Journal,* 32(3), 581-594.
Davies, Glyn. (2002). *A History of Money from Ancient Times to the Present Day*, Cardiff: University of Wales Press.
Del Mar, Alexander. (1895). *History of Money*, London: Effingham Wilson, Royal Exchange. [Online] Available: http://hdl.handle.net/2027/uc2.ark:/13960/t1fj2jd7r (26 June 2018).
Einzig, P. (1966). *Primitive Money*, 2nd., Oxford.
European Central Bank (ECB). (2008). *EU Banks' Liquidity Stress Testing and Contingency Funding Plans*, November 2008.
European Central Bank. (2015). *Virtual Currency Schemes: a Further Analysis*, ECB published documents.
Evans, Charles. (2014). Coins for Causes, *Conscious Entrepreneurship Foundation,* White Paper (13 July). [Online] Available: http://consciousentrepreneurship.org/coins-for-causes/.
Evans, Charles. (2015). Bitcoin in Islamic Banking and Finance, *Journal of Islamic Banking and Finance*, June 2015, Vol. 3, No. 1, pp. 1-11.
Farooq, M. O. (2008). *Qard* Hasan, Wadiah/Amanah and Bank Deposits: Applications and Misapplications of Some Concepts in Islamic Banking, Paper presented at Harvard Islamic Finance Forum, April 19, 2008, Cambridge, MA.
Fayoumi, A. bin Mohammed bin Ali. (1922). *Al-Misbah al-Muneer*, Amiri Printing Press: Egypt.
Fell, John, (2006). *Overview of stress testing methodologies: from micro to macro*. European Central Bank, Seoul, Available from: <https://www.imf.org/external/np/seminars/eng/2006/macropr/pdf/Fell.pdf> [Accessed on 28 November 2015].
Financial Conduct Authority (FCA). (2014). *Stress testing and contingency funding*. Available from: <https://www.handbook.fca.org.uk/handbook/BIPRU/12/4.html> [Accessed on 22 December 2015].
Frenz, Tobias; Soualhi, Younes. (2010). *Takaful and Retakaful: Advanced Principles and Practices*, 2nd ed., Kuala Lumpur: IBFIM.
Gambling, Trevor; Karim, Rifaat Ahmed Abdel (eds.) (1991). *Business and Accounting Ethics in Islam*, London, New York: Mansell.
GARP. (2011). *A New Regulation for Liquidity Risk*, Garp, December 2011.
Godard, Philippe. (2007). *The History of Money from its Origins to our Time*, Paris: Autrement.
Graeber, David. (2011). *Debt: The First 5,000 Years*. New York: Melville House.
Grierson, P. (1977). *The Origins of Money,* London.
Grundke, Peter. (2011). Reverse stress tests with bottom-up approaches. *The Journal of Risk Model Validation*, (71–90) Volume 5/Number 1, Spring 2011.
Habannaka, Abdul Rahman. (1988). *Dawabit al-Ma'rifah*, Dar Al-Qalam: Damascus.
Hamra, M. Ibrahim. (2008). *Foreign Banking Operations and their Role in the National Economy*, PhD research, Damascus University: Damascus.
Haron, Sudin. (1996). The effects of management policy on the performance of Islamic banks, *Asia Pacific Journal of Management*. Singapore: Oct 1996.Vol. 13, Iss. 2; pg. 63-76.
Hasan, Aznan. (2011). *Fundamentals of Shari'ah in Islamic Finance*, Kuala Lumpur: IBFIM.
Hasan, Zulkifli. (2012). *Shari'ah Governance in Islamic Banks*, Edinburgh: Edinburgh University Press.
Hassan, Ahmed. (1999). *Banknotes*, Dar al-Fikr: Damascus.
Hassan, Kabir M.; Kayed, Rasem N.; Oseni, Umar A. (2013). *Introduction to Islamic Banking and Finance: Principles and Practice*, Harlow: Pearson.
Hourani, Akram. (1997). *Money*, Publications of the Ministry of Culture from the series of economic thought: Damascus.
Htay, Sheila Nu Nu; Arif, Mohamed; Soualhi, Younes; Zaharin, Hanna Rabittah; Shaugee, Ibrahim. (2012). *Accounting, Auditing and Governance for Takaful Operations*, Singapore: Wiley.

Hudson, Michael. (2004). The Archaeology of Money: Debt Versus Barter Theories of Money's Origins. In *Credit and State Theories of Money: The Contributions of A. Mitchell Innes*, edited by L. Randall Wray, 99–127. Cheltenham: Edward Elgar Publishing.
Hudson, Michael. (2012). *The Bubble and Beyond*. Dresden: Islet.
Humphrey, Caroline. (1985). Barter and Economic Disintegration. *Man,* 20, (1): 48–72.
Ibn Manzoor, M. (1968). *Lisan al-Arab*, Dar Sader and Beirut House: Beirut.
Ibn Qadi, Ahmad Ibn al-Hasan. (1989). *Al-Munaqalah bel Awqaf wa ma Waq'a fi thamika mena al-Niza'*, Kuwait: Ministry of Awqaf.
Ibrahim, M. H. (2007). The Yen Dollar Exchange Rate and Malaysian Macroeconomic Dynamics. *The Developing Economies,* XLV-3 (September 2007): 315–38.
IFSB, Islamic Financial Services Board. (2009). Guiding Principles on Governance for *Takaful* Undertakings, IFSB, Malaysia.
IMF Working paper. (2011). *Next Generation System-Wide Liquidity Stress Testing*, January 2011.
Ingham, Geoffrey. (2000). Babylonian Madness: On the Historical and Sociological Origins of Money. In *What Is Money*, edited by John Smithin, 16–41. London: Routledge.
Ingham, Geoffrey. (2004). *The Nature of Money*. Cambridge: Polity.
International Accounting Standard Board (IASB). (2016). Issues in the application of IFRS 9 to Islamic Finance, *A paper prepared by the IASB Staff, Outreach on Shariah-Compliant Instruments and Transactions*, IASB, February 2016, page 2.
Iqbal, Munawar, and Philip Molyneux. (2005). *Thirty Years of Islamic Banking: History, Performance and Prospects.* UK: Palgrave.
Islamic Fiqh Academy. (1987). *Journal of Resolutions*, Mo`asasat al- Tiba'a wa al-Sahafa wa al-Nasher: Libya.
Islamic Fiqh Academy. (2007). *Journal*, India.
Islamic Research Academy for Islamic Finance. (2011). *Islamic Financial System: Principles and Operations*, Kuala Lumpur: ISRA/Pearson.
Ismail, Azman; Rahman, Md. Habibur. (2013). *Islamic Legal Maxims: Essentials and Applications*, Kuala Lumpur: IBFIM.
Jackson, Andrew, and Ben Dyson. (2013). *Modernising Money: Why Our Monetary System Is Broken and How It Can Be Fixed*. London: PositiveMoney.
Jevons, W. S. (1875 and 1910). *Money and the Mechanism of Exchange,* London.
Johnson, B. (1970). *The Politics of Money,* London.
Johnson, M. (1977). 'The Cowrie currencies of West Africa', in D. O. Flyn, *Metals and Monies in an Emerging Global Economy*: London.
JPM (JP Morgan). (2017). Resolution Plan Public Filing, JPM available at: https://www.jpmorganchase.com/corporate/investor-relations/document/resolution-plan-2017.pdf [accessed on 12 November 2018].
Kamali, Mohammad Hashim. (2008). *Shari'ah Law: An Introduction*, Oxford: Oneworld Publications.
Keen, Steve. (2011). *Debunking Economics: The Naked Emperor Dethroned*. London: Zed.
Khan, Irfan A. (2005). *Reflections on the Qur'an,* UK: Islamic Foundation.
Khan, M. F. (1991). Time Value of Money and Discounting in Islamic Perspective, *Review of Islamic Economics*, Vol. 1, No. 2 (1991). pp. 35-45.
Kirk, Jeremy. (2013). *Could the Bitcoin Network Be Used as an Ultrasecure Notary Service?* PC World 24th May. [Online] Available: http://www.pcworld.com/article/2039705/could-the-bitcoin-network-be-used-as-anultrasecure-notary-service.html (26 June 2018).
Knapp, G. F. (1924). *The State Theory of Money*, English edn. London.
KPMG. (2017). Recovery Planning, what More Banks Need to Do? Available at: https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2017/07/ecb-recovery-planning.pdf [Accessed on October 15 2018].
Lahsasna, Ahcene. (2010). *Introduction to Fatwa, Shariah Supervision and Governance in Islamic Finance*, Kuala Lumpur: CERT.

Laldin, Mohamad Akram. (2008). *Introduction to Shari'ah and Islamic Jurisprudence*, 2nd ed., Kuala Lumpur: CERT Publications.
Lashin, M. El-Morsi. (1977). *Accounting Organization for Public Funds in the Islamic State*, Lebanese Book House, Beirut.
Lindgren, H. C. (1980). *Great Expectations: The Psychology of Money,* New York.
Masri, Rafiq. (1991). *Al-Jami' fi Osoul al-Riba*, Dar al-Shamiya Beirut.
Matonis, Jon. (2014). *12 Ways to Measure the Bitcoin Network's Health*, CoinDesk, (27th September). [Online] Available: http://www.coindesk.com/12-ways-measure-bitcoin-networks-health/ (1 June 2018).
Marifa Academy. (2014). *Islamic Banking and Finance: Principles and Practices*, available at: https://islamicbankers.files.wordpress.com/2014/09/marifas-practical-guide-to-islamic-banking-and-finance.pdf [Accessed on 20 December 2018].
Matten, Chris. (2009). PRMIA Members' Meeting, *Stress testing liquidity and the contingency funding plan*, 24 February 2009.
Meikle, Scott. (1994). Aristotle on Money, *Phronesis,* 39(1), 26-44.
Menger, Carl. (1892). On the Origin of Money, *Economic Journal*, 2, 239–255.
Mosler, Warren. (1997). Full Employment and Price Stability. *Journal of Post Keynesian Economics,* 20 (2): 167–82.
Mustafa, Mahmoud. Hilmi. (1970). *Islamic Ruling Compared to Modern Systems,* Dar al-Fikr al-Arabi, Cairo.
Nakamoto, Satoshi. (2008). *Bitcoin: A Peer-to-Peer Electronic Cash System*, [Online] Available: www.bitcoin.org. (15 June 2018).
Oates, J. (1979). *Babylon,* London.
Orsingher, R. (1964). *Banks of the World: A History and Analysis,* Paris.
OSFI. (2009). *Stress testing* (sound business and financial practices). Available from: <http://www.osfi-bsif.gc.ca/eng/docs/e18.pdf> [Accessed on 28 December 2015].
Peria, Maria Soledad Martinez; Giovanni Majnoni; Matthew T. Jones, and Winfrid Blaschke. (2001). Stress testing of financial systems: an overview of issues, methodologies and FSAB experiences, *International Monetary Fund*, IMF working paper, Issues 1-88, 2001.
Qal'aji, M. Rawas. (2017). *Contemporary Financial Transactions*, Dar al-Nafas: Jordan.
Qur`an, (printed: 1995). *Qur`an*, Damascus: Dar Al-Fikr.
Radford, R. A. (1945). The Economic Organization of a P.O.W. Camp*, Economica*, 12, 189-201.
Rahman, Zaharuddin Abdul. (2012). *Contracts and Products of Islamic Banking*, 2nd ed., Kuala Lumpur: CERT.
Rahn, Richard W. (1999). *The End of Money and the Struggle for Financial Privacy*, Seattle: Discovery Institute.
Ramadan, Mahmoud. (2011). Dirasah hawla ta'adud ajnas al-awraq al-naqdiyyah, *Damascus University Journal*, 27, No 1.
Rickards, James. (2014). *The Death of Money: The Coming Collapse of the International Monetary System*. New York: Portfolio Penguin.
Rosenfeld, Meni. (2012). *Overview of Colored Coins*, Thesis. Aveailable at: http://www.bibliothesis.com/thesis/2058001(1 May 2018).
Sabbahi, Hamdy. (1982). *Fi al-Ta'reef bel-Noqood*, Dar al-Hadatha: Beirut.
Sadique, Muhammad Abdurrahman. (2009). *Essentials of Musharakah and Mudarabah: Islamic Texts on Theory of Partnership*, Kuala Lumpur: IIUM Press.
Sadique, Muhammad Abdurrahman. (2012). *Capital and Profit Sharing in Islamic Equity Financing: Issues and Prospects*, Kuala Lumpur: The Other Press.
Saeed, Abdullah. (1999). *Islamic Banking and Interest: A Study of the Prohibition of Riba and Its Contemporary Interpretation*, 2nd ed., Leiden: Brill.
Saeed, Abdullah. (1996). *Islamic Banking and Interest: A Study of the Prohibition of Riba and its Contemporary Interpretation*, New York: E. J. Brill.
Saleh, Nabil A. (1986). *Unlawful Gain and Legitimate Profit in Islamic Law: Riba, Gharar and Islamic Banking,* Cambridge: Cambridge University Press.
Shubair, M. Othman. (2001). *Contemporary Financial Transactions*, Dar Al-Nafais: Jordan.

Siddiqi, Mohammad Nejatullah. (2004). *Riba, Bank Interest and the Rationale of Its Prohibition*, Jeddah: IRTI.
Sori, M. Zulkarnain. (2016). Accounting for Musharakah Mutanaqisah Home Financing: The Malaysia Case, (July 8, 2016). Available at SSRN: https://ssrn.com/abstract=2806947 or https://doi.org/10.2139/ssrn.2806947, (accessed on 11 September 2018).
Tahawi, Abu Jaafar. (1995). *Shareh Ma'ani al-Aathar*, Anwar Muhammadiyah Publication: Cairo.
Tarabzouni, Mohieddin. (1984). The Islamic Financial System, *Proceedings of the Symposium on Islamic Systems*, C2, Abu Dhabi 18-20, 1405 AH / 11-13 November 1984, p. 112.
TATA. (2013). *A stress testing framework for liquidity risk*. Available from: <http://www.tcs.com/SiteCollectionDocuments/White%20Papers/BFS-Whitepaper-Stress-Testing-Framework-Liquidity-Risk-0413-2.pdf> [Accessed on 25 March 2016].
Thompson, J. D. A. (1956). *Inventory of British Coin Hoards,* AD 600–1500, Oxford University Press: Oxford.
Thorne, W. J. (1962). *Banking,* London.
Tobin, J. (1978). 'Proposal for international monetary reform', *Eastern Economic Journal,* New York.
Toniolo, G., ed. (1988). *Central Banks' Independence in Historical Perspective,* Berlin
Tooke, T. and Newmarch, W. (1857). *A History of Prices and of the State of the Circulation from 1792 to 1856,* London.
Toynbee, A. J. (1960). *A Study of History,* Oxford: Oxford University Press.
Trevelyan, G. M. (1938). *The English Revolution, 1688–9,* London.
Trued, M. N. and Mikesell, R. F. (1955). 'Post-war bilateral payments agreements', *Princeton Studies in International Finance*, 4 (April).
Unwin, G. (1927). *Studies in Economic History,* London.
Usher, A. P. (1962). *A History of Mechanical Inventions,* Cambridge: Mass.
Usher, D. (1966). *Rich and Poor Countries: A Study of the Problems of Comparisons of Real Incomes,* London.
Usmani, Muhammad Taqi. (2002). *An Introduction to Islamic Finance*, The Hague: Kluwer Law International.
Veblen, T. (1899). *Theory of the Leisure Class,* Chicago.
Vilar, P. (1976). *A History of Gold and Money 1450–1920*, English edn, London.
Vogel, Frank and Samuel Hayes. (2006). *Islamic Law and Finance: Religion, Risk, and Return,* London: Brill.
Vogel, Frank E.; Hayes, Samuel L. (1998): *Islamic Law and Finance: Religion, Risk, and Return* [Arab and Islamic Laws Series, 16], Leiden, Boston: Brill. ISBN: 978-90-411-0624-7.
Wake, J. (1997). *Kleinwort Benson: The History of two Families in Banking,* Oxford.
Weale, M. (2000). '1,300 years of the pound sterling', *National Institute Economic Review*.
Werner, Richard. (2005). *New Paradigm in Macroeconomics: Solving the Riddle of Japanese Macroeconomic Performance*. Basingstoke: Palgrave Macmillan.
White, Horace. (1902 [1895]). *Money and Banking,* 2nd ed., Boston: Ginn & Co.
Wray, L. Randall. (1998). *Understanding Modern Money: The Key to Full Employment and Price Stability*. Cheltenham: Edward Elgar Publishing.
Yahya, Z. Hashim and L. Mohammed Ayoub. (1995). Financial Control in Islam, *Journal of Development of Rafidain*, No. 45, Faculty of Management and Economics, University of Mosul, 1995, p. 246.
Yahya, Z. Hashim. (2013). *The scientific rooting of the accounting system in the Islamic state*, research paper, University of Mosul.
Zaid, Omar. (1995). *Financial Accounting in the Islamic Society*, Part One, Historical and Theory Framework, Dar Al Yazuri, Amman, Jordan.
Žižek, Slavoj, and Glyn Daly. (2004). *Conversations with Žižek*. Cambridge: Polity.
Žižek, Slavoj. (2006). *How to Read Lacan*. London: W. W. Norton & Company.

Index

A
Abscess law, 84
Accountancy, 91
Accounting
  AAOIFI, 17
  and auditing literature, 72
  financial, 1, 2, 20, 33, 43
  and money, 20
  principles, 21
  reporting requirements, 2
  requirement, 2
  standards, 47
  systems (*see* Accounting systems)
  treatment, 45, 63, 72, 73
Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), 17, 54, 62, 96, 99–101, 106, 121, 133, 136, 137, 143, 149, 176, 329
Accounting books, 84, 85
Accounting systems, 322
  components
    efficiency and effectiveness, 80
    human, 79, 81
    in Islamic context, 80
    material, 79
    physical factors, 80, 81
  concept and objective, 76
  development, 75
  elements, 82
    accounting books, 84, 85
    directory, 85, 86
    documentary collection, 82–84
    reports and financial statements, 86, 87
  evolution, 77–79
  faith-based (*see* Faith-based accounting system)
  and financial, 75
  internal control, 87
  in Islamic rule, 75
  methodologies, 75
  policies, 76
  record of financial inflows and outflows, 77
  Shariah rules, 76
Additional acquisition payments (AAP)
  home finance customer, 220
  SPPI criterion, 220
  SPPP criterion, 221
Al-Bara`a, 83
Al Diwan, 80
Al-Fahrast, 85
Al Hasel, 85
Al Irtifa, 87
Al Jam' al-Wasel, 85
Al Jareeda al Sudaa`, 85
Al-Kharis, 81
Al Khitma, 86
Al Khitma al Jami'a, 87
Al-Makhzoumiya, 84
Al Muqassah, 85
Al Mustakhraj, 85
Al-Muwafaqa (approval), 87
Al-Rajhi Banking Investment Corporation, 8
Al-Roznameg, 84
Al Salaf, 85
Al-Sirafi, 81
Al Tawaali, 87
Altcoins, 66, 68
Alternative financial instruments, 7
Alternative student finance (ASF), 194

S. Alamad, *Financial and Accounting Principles in Islamic Finance*,
https://doi.org/10.1007/978-3-030-16299-3

Al-Uorag, 84
Amal al-Mabe'aat, 87
Amal al-Mushtarayat, 87
Amanah (trust deposit), 170, 171
American-Indian money, 27, 28
Amir ibn al-Jarrah, 88
Analogical reasoning, 54, 56, 57, 59
Analogy, 53, 54
Ancient civilizations, 31
Auditing processes, 77

B
Bait al-Maal, 6
Balance sheet
  investment accounts classification, 114, 115
Bank accounts, 31
Bank financing
  economists' approach, 15, 16
  jurists' approach, 13, 14
  substance and form, 14
Bank incentive, 112
Bank Islam Malaysia Berhad (BIMB), 8
Bank of England (BoE) approach, 63
Bargaining sale (*bay' al-musawamah*), 122
Bartering, 22–24
Basel Committee on Banking Supervision (BCBS), 279, 308
Beholder (*al-Nazir*), 81
Bills of exchange, 36
Bitcoin, 52, 65, 68
Bitcoins and cryptocurrency units (BCU), 63
Block, 64
Blockchain management systems (BMSs), 62–64
Blood money, 31
Build-operate-transfer (BOT) projects, 147
Business, Innovation and Skills (BIS), 191

C
Capital buffers, 262
Capital Conservation Buffer (CCoB), 262
Capitalism, 92
Capitalist system, 41
Cash sale, 44
Cattle, 28
Central banks, 44
Charity-based contracts category
  islamic financing techniques, 175, 176 (*see also Takaful* (cooperative financial arrangement); *Waqf* (endowment))
Chinese quasi-coins, 33
Coinage
  ancient civilizations, 31
  availability, raw materials, 34
  bank accounts, 31
  bankers, 35
  Chinese quasi-coins, 33
  debasing, 35
  denarius, 35
  denier, 35
  ECB, 35
  economics, 31, 34
  electrum, 32
  exchanging media, 33
  financial accounting, 33
  gold and silver, 31, 34
  Greek invention, 33
  in human progress, 31
  inscriptions, 33
  Lydian–Greek coinage, 33
  metal quasi-coins, 32
  methods of exchange, 31
  non-Chinese, 32
  non-economic factors, 32
  numismatics, 31
  owls of Minerva, 34
  Persians, 33
  political accountancy, 31
  supply of money, 35
  unstamped dumps, 33
  The Wealth of Nations, 31
Combined operating and finance leases, 162
Combined scenario, 284
Commercial banks, 44
Commodities, 23, 44, 50, 51, 66
Commodity *murabaha* instrument
  accounting standards, 227, 228
  analysis, 226
  counterparty inter-banking placement, liquidity, 226
  IFRS 9 analysis, 228, 229
Commutative contract, 11
Competent authorities, 278
Conceptual Framework for Financial Reporting, 127, 323
Contract of money exchange, 51
Contractual engineering, 14
Controller (*Sahib*) of *bait al maal*, 81
Conventional economics, 23, 320
Conventional financial theory, 320
Council of Senior Scholars in Saudi Arabia, 53
Counter values, 60
Countercyclical buffer (CCyB), 262
Cowries, 26, 27

Credit sale, 44
Crisis Management Framework, 295
  governance, 294
  internal testing and challenges, 294
  playbooks and contingency plans, 294
Cryptocurrencies, 52, 69

D
Dafter al-Amwal al-Musaadarah, 85
Dafter al-Nafaqaat, 85
Debasing the coinage, 35
Debt-based contracts
  Amanah (trust deposit), 170, 171
  commodity/sum of money, 173
  conventional deposit account, 174
  islamic financing technique, 167, 168 (*see also Qard* (interest-free loan); Safe custody deposit (*Wadi'a*))
Delay payment, 218–220
Denarius, 35
Denier, 35
Digital currency (DC), 21, 46, 328, 329
  altcoins, 66
  analytical view, 62
  BCU, 63
  bitcoin, 65
  block, 64
  BMSs, 62, 63
  BoE approach, 63
  chart theory, 63
  commodity theory, 63
  credit theory, 63
  digital signatures, 63
  digital wallet, 63
  economic theory, 63
  guidance and principles, 62
  Islamic economics and finance perspective
    altcoins, 68
    bitcoin, 68
    buyer, 69
    customary practice, 69
    economic power, 68
    European Central Bank, 66
    fee charged, 69
    fiat money, 68
    function of money, 67
    Hanafi, 67
    maal, 67
    multi-genus, 67
    object of sale, 70
    political stability, 68
    purchase process, 68
    sale contract, 70, 71
    tokens, 68
  measure of value, 65
  medium of exchange, 65
  mint-based model, 64
  physical objects, 64
  puzzle, 65
  Shariah legal opinion, 62
  store of value, 65
  tokens, 65, 66
  trading, 62
  unit of account, 65
Digital signatures, 63
Digital wallet, 63
Diminishing *Musharaka*
  accounting treatment, 101–104
  home financing, 104–106
  structure, 101
Directory of accounts, 85, 86
Dissolution payment, 242, 246
Division of labour, 31
Diwan, 78
Diwan Al 'Ataa`, 78
Documentary collection, 82–84
Dubai Islamic Bank, 8

E
Early dissolution events, 249–251
Early termination (prepayment), 225
Economic substance framework, 328
Economic theory, 63
Economists' approach
  Islamic financing techniques and instruments, 15, 16
  PLS models, 15
  riba-free financing system, 15, 16
  risk-shifting instruments, 15
Electronic money, 37
Electrum, 32
Equity-based Islamic financial instruments
  category, 95, 96
  Mudaraba (*see Mudaraba*)
  Musharaka (*see Musharaka*)
EU's LCR Delegated Act (DA), 284
Euro, 58, 59, 61
European Central Bank (ECB), 35, 277
European Currency Unit (ECU), 59
European Union (EU), 58
Exchange contracts, 14
Exchange sale (*bay' al-sarf*), 121
External document, 83

F
Faith-based accounting system, 328
  good organizational plan, 87, 88
  hermetic accounting system, 88, 89
  qualified individuals, 89–92
Faith-based concept of money, 37–40
Faith-based financial institutions, 330
Faith-based rules, 328
Fatwa
  and Shariah reports, 18, 19
Fiat money, 68
Fijian, 27
Financial contracts, 51
Financial instruments, 7
Financial reporting, Islamic banks, 322
Financial Stability Board (FSB), 279
Financial transactions, 11, 12
Financing sale, 14
Fiqh, 4, 37, 88
Fiqh Al I'badat, 76
Fiqh Al Mu'amalat, 76
Fixed rental rate, 215
Fulus, 39

G
GBP, 49, 51, 52
Gharar, 11, 40, 54, 69, 71
Gold and silver coins, 49–54, 56–60, 72
Good organizational plan, 87, 88
Governance mechanisms, 296
Gradualist approach, 5
Greek invention, 33

H
Hadith, 3, 51, 55, 60, 106
Hanafi, 6, 60, 61, 67, 70, 71
Hanbali, 60, 61, 67, 71
Hawasil Ma'doomah, 86
Hermetic accounting system, 88, 89
High quality liquid assets (HQLA), 286, 287, 308
Hijra, 38
Hire purchase contract, 160
Holding partnerships, 97
Home financing, 104–106
Household management, 31
Human components, accounting systems, 81
Hybrid *salam* contract, 139, 140

I
IAS18 Revenue, 104, 117
IAS 28 Investments, 104, 117
IAS32 Financial Instruments, 115
Idiosyncratic scenario, 283
IFRS, 104, 106
IFRS 10, 102
IFRS 11, 101–103, 116
Ijara/ijarah, 104, 105
Ijarah contract
  conclusion of, 151
  contracting parties, 151
  description, 149
  guarantee and security, 152
  IFRS treatment, 156–161
  islamic law differentiates, 150
  lease finance, 154–156
  operating lease, 153, 154
  subject matter, 151
  termination, 152
  transfer of ownership, 152
Ijtihad, 59
Incentive fee, 100
Indian Fiqh Academy, 53
Indigenous communities, 27
Inherent funding risk assessment, 285, 286
Inscriptions, 33
Interest based conventional banking system, 7
Interest-free bank, 7
Interest Free Credit Society, 7
Interest-free loans, 7
Internal Capital Adequacy Assessment Process (ICAAP)
  capital buffers, 262
  capital requirements, 260
  capital resources, 262, 264
  governance framework, 266
  internal assessment of risks, 260
  minimum regulatory capital, 260
  pillar 1 and 2 calculations, 261, 262
  risk governance and management framework, 265, 266
  RMF, 266–270
Internal document, 83
Internal liquidity adequacy assessment process (ILAAP), 277
International Accounting Standards (IAS), 2, 20, 319
International Financial Reporting Standard 9 (IFRS 9), 101

AAP (*see* Additional acquisition payments (AAP))
application of, 209 (*see also* Commodity *murabaha* instrument)
delay payment, 218–220
DMI, 210–214
equity-based and sale-based financial products, 209
financial co-ownership or financial leases, 209
SPPP (*see* Solely Payments of Principal and Profit (SPPP))
International Monetary Fund (IMF), 8
Investment accounts
classification, balance sheet, 114, 115
Investment risk reserves (IRR), 110
Islam
binds social values and commerce, 2
common law characteristics and legal maxims, 5, 6
evolution of Islamic law, 4, 5
universal message, 3
worldview, 4, 5
Islamic banking, 99, 108
Conference in Dubai, 52, 53
development, 90
establishment, 7
investment, 1
license in Saudi Arabia, 8
Islamic Development Bank, 8
Islamic economics
Centre for Research, 8
period of 750 CE–1900 CE, 7
philosophy, 20
principles, 6
Islamic finance
contracts of exchange, 45
development, 6–8
and fundamentals of Islamic law, 1–2
history, 6–8
industry and public, 62
market, 45, 72, 93
and operations, 2
philosophy, 1
principles, 2, 6
Shariah (*see* Shariah)
Islamic Financial Institutions (IFIs), 45, 62, 72, 73, 90, 91, 93, 97, 108–116
in emerging market countries, 15
objectives and philosophies, 11
operations, 2
in Pakistan, 7
Shariah boards, 17, 18
Islamic financial instruments
equity-based (*see* Equity-based Islamic financial instruments)
Islamic Financial Services Board (IFSB), 17
Islamic Fiqh Academy
in India, 52
in Jeddah, 52, 54
Islamic Investment Company (IIC), 8
Islamic jurisprudence, 4, 5, 18, 21, 49, 71
bargaining sale (*bay' al-musawamah*), 122
DC (*see* Digital currency (DC))
exchange sale (*bay' al-sarf*), 121
general sale (*bay' al-mutlaq*), 120
sale at cost price (*bay' al-tawliyyah*), 121
sale at discount (*bay' al-wadhi'a*), 122
Islamic law
evolution, 4, 5
fundamentals of, 1–2
principle-based general theories, 6
Islamic legal schools, 5
Islamic scholars, 49–51
Istisna contract, 104
conclusion of, 144
contracting parties, 143
description, 143
differences, 144
parallel *istisna*, 145–147
structure, 144
subject matter, 143, 144
supervision, execution of, 144

J
Jareedah, 84
Jins, 55, 56
Joint arrangements
accounting treatment, 104
description, 101
IFRS 10, 102
IFRS 11, 102
joint control, 102
joint operations, 102, 103
joint venture, 102, 103
Joint operations, 102, 103
Joint venture, 102, 103
Jurists' approach, 13, 14

L
Late payment, 253, 255
Late payment provision, 225
Lessee/customer, 158
Lessor, 160

Liquidity, 57, 110, 112
Liquidity adequacy statement (LAS), 326
Liquidity coverage ratio (LCR), 281, 286
Liquidity resources, 280
Liquidity risk drivers' assessment, 281, 282
Liquidity stress scenario
  combined scenario, 284
  idiosyncratic scenario, 283
  market-wide scenario, 283
Liquidity stress testing
  approved assumptions, 304
  assess, 307
  build and execute phase, 307
  framework, 307
  funding/deposit outflows, 303
  identification, 307
  IFI-specific and market-wide stress events, 303
  intra-group cash flows, 304
  LCR and NSFR ratios, 305
  market-wide stress, 305
  proxy depositors' behaviour, 303
  quantification and control, 308
  regulatory requirements, 305, 306
Litecoin, 67
Long-term funding pool, 112
Lydian–Greek coinage, 33

M
Macro-prudential stress tests
  description, 309
  elements, 309
Markets, 24
Market-wide scenario, 283
Mechanistic controls, 22
Metal quasi-coins, 32
Micro-prudential stress tests
  definition, 308
  elements, 308
Mining, 65
Mithqal, 38
Monetarist theory, 43
Monetary value, 75
Monetisation (*Tawarruq*)
  accounting treatment of, 133
  conclusion of contract, 132
  contracting parties, 132
  defintion, 130
  OIC Figh Academy, 132, 133
  operational aspects, 131
  structure, 131
  subject matter, 132
Money, 12, 14, 20
  biblical warning, 21
  coinage, 31–35
  definition, 24
  faith-based concept, 37–40
  general functions, 25
  in society
    bartering, 22–24
    taboos, 22
    tangible technical device, 22
  lack of, 21
  nature, 40–42
  paper, 36–37
  pre-coinage metallic, 28–31
  pre-metallic, 26–28
  prime/main function, 25
  primitive communities, 22
  secondary/derived function, 25
  specific functions, 25
  state theory of money, 25
  theory of money, 50–52
  time value, 42–46
Mudaraba, 7, 181
  contract derives, 106
  deposit products, 109, 110
  financing arrangement, 108, 109
  IFRS, 115
  investment accounts, 114, 115
  vs. musharaka, 106–108
  partnership financing structure, 107
  partnership in profit, 106
  profit calculation process, 113, 114
  profit smoothing, 110–112
Mudaraba-based investment accounts, 109, 110
Mudarabah, 7
Mudarib, 17, 106–109
Muhasaba (accounting), 87
Multi-genus banknotes, 52
Multi-genus paper money, 52–53, 55, 61, 67
Murabaha, 44, 111, 116
  acquisition costs, 122
  definition, 122
  financing instrument, deferred payment, 123
  legitimacy and permissibility, 122
  profit mark-up, 123
  purchase orderer, 124, 125
  risk mitigation technique, 125, 126
  typical structure, 123
Musharaka, 7
  accounting treatment
    IFRS, 101
    joint arrangements, 102–104

condition, 96
diminishing, 97
home financing, 104–106
juristic requirements
AAOIFI, 99–101
capital, 98, 99
diminishing, 99
guarantee, 98
losses, 98
management, 98, 99
maturity and termination, 98
parties, 98
profit distribution, 98
structure, 99–101
legitimacy of, 96
vs. mudaraba, 106–108
ownership, 97
sharikat al-'aqd, 97
types, 96, 97
Musharakah, 7
Mustawfi, 81
Muwakkil profit, 224

N
Nasir Social Bank, 7
National competent authorities (NCAs), 279
National Shariah boards, 19
Nature of money, 40–42
Net Stable Funding Ratio (NSFR), 281
Non-banking financial institutions, 44
Non-Chinese coinage, 32
Non-recourse features, 239–241
Non-recourse financing
assets, 237
credit linked instruments/silo, 238, 239
Non-voting capital shares, 63

O
Operating lease, 161
Organisation of Islamic Countries (OIC), 132
Overall liquidity adequacy rule (OLAR), 280, 281
Owls of Minerva, 34

P
Paper money
banknotes, 36
bills of exchange, 36
charging interest and creating money, 37
in China, 36
countries of issuance
multiple genus, 52–53
single genus, 54–55
economic life, 36
exchange transactions, 49
Jins, 55, 56
merchants and bankers, 36
money creation system, 36
unlimited amounts, 36
Parallel *istisna* contract, 145–147
construction, 148, 149
risk exposure, 147, 148
Parallel *salam* contract, 138, 139
Partnership contracts, 13
See also Musharaka
Periodic distribution, 242, 244–246
Physical factors, accounting systems, 80, 81
Pilgrims' Savings Corporation, 7
Policy implications, 329
Pre-coinage metallic money, 28–31
Pre-metallic money
allocation of resources and changes, 26
cattle, 28
cowries, 26, 27
development, 26
Fijian, 27
primitive communities, 26
wampum, 27, 28
Prepayment options, 251–253
Primitive communities, 22
Profit and loss sharing (PLS) models, 15
Profit calculation process, 113, 114
Profit distribution, 98
Profit equalisation/stabilisation reserves (PER/PSR), 110
Profit sharing contracts, 7
Profit smoothing
allocation model, 111
IFI, 110
investment account holders, 110
IRR, 110
long-term funding pool, 112
PER/PSR, 110
Shariah requirements, 111
short term funding pool, 111
Profit-sharing principle of *mudaraba*, 108
Prudential Regulation Authority (PRA), 288, 301
Psychology of money, 22

Q
Qard (interest-free loan)
definition, 168
islamic jurisprudence context, 170
repayment deposits, 169
requirements, 168

Qard (interest-free loan) (*cont.*)
structure, 169
Qard Hasan, 109
Qiyas, 53
Qualified individuals, 89–92
Qur'an, 1–6, 10–13, 18, 21, 38, 86, 96, 106

R
Rab al-maal, 106
Rationalistic approach, 5
Recovery planning, 287–289
communication, 293
critical business functions, 290
documentation, 289
governance, 289
integration, 290
options, 292
scenario testing, 291
testing, feasibility and updating, 292
triggers, 291
Regulatory authority, 19
Regulatory reporting, 2, 20
Rental/profit rate analysis, 214–217
Reports and financial statements, 86, 87
Resolution planning
capital and liquidity resources, 296
Crisis Management Framework, 295
cross-border cooperation and coordination, 296
day-to-day operations, 296
defence against legal challenge, 296
deposit-taking and payment services, 293
elements, 294
equity-based assets, 295
governance mechanisms, 296
legal entity structure, 296
operational capabilities, 297
Shariah governance, 294
tahawwut and trading activities, 297
Retail assets, 310
Retail funding, 285
Retail liabilities, 310
Reverse stress testing, 311, 315, 316
Riba
definition, 12
in gold and silver, 50
paying/receiving, 51
prohibition, 55, 116
receiver and giver, 49
rules, 57
types, 52
usury and bank interest, 12, 13
Riba-free financing system, 15, 16
Risk and control self-assessment (RCSA), 325
Risk management framework (RMF), 266–270, 325
Risk monitoring, 272

S
Safe custody deposit (*Wadi'a*), 171–173
Salam, 44–46
commodity purchase, deferred delivery, 134
conclusion of, 136
contracting parties, 135
definition, 134
financed party (counterparty risk), 137
financing arrangement, 140–142
flexible financing arrangement, 136, 137
hybrid *salam* contract, 139, 140
legitimacy, 134
parallel *salam*, 138, 139
seasonal agricultural products, 134
structure, 135
subject matter, 135, 136
Sale and leaseback transaction, 163, 164
Sale at cost price (*bay' al-tawliyyah*), 121
Sale at discount (*bay' al-wadhi'a*), 122
Sale-based contracts
IFRS accounting treatment, 127–130 (*see also Ijarah* contract)
instruments, 119, 120 (*see also* Islamic jurisprudence; *Istisna* contract; Monetisation (*Tawarruq*); *Murabaha*; *Salam*)
types of, 119
value added by IFIs, 126
Sales contracts, 7
Sarf, 51
Scheduled dissolution date, 246–249
Seigniorage, 35
Shariah
AAOIFI, 54, 96
compliance and governance
fatwa, 18, 19
Islamic banks, 17
national board, 19
Shariah boards, 17, 18
compliance perspective, 109
controls, 54
definition, 61
ethics
commercial, 9
corporations, 10, 11
dimensions, 8

individuals, 8–10
institutions, 10, 11
social perspective, 8
fiat money, 21
financial transactions, 11, 12
legal opinion, 51, 62
market economy, 8
principles, 42, 45, 55, 59, 61
prohibits, 44, 47
requirements, 73, 111
riba, 12, 13
rules, 40, 54, 76, 89, 91
SSC, 114
Shariah compliant currency purchase, 321
Shariah non-compliance risk, 270, 271
Shariah Supervisory Boards (SSB), 17, 18
Shariah Supervisory Committees (SSC), 17, 18, 114
Sharikat al-'aqd, 97
Sharikat al-milk, 97
Short term funding pool, 111
Silent partnership, *see Mudaraba*
Single Supervisory Mechanism (SSM), 277
Single-genus paper money, 54–55, 59, 61
Smart Contracts, 66, 68
Solely Payments of Principal and Profit (SPPP), 209, 324
equity-based financial instruments, 214
rental/profit rate analysis, 214–217
State theory of money, 25
Stewardship, 2
Stock exchanges, 44
Stock market bears, 22
Stress testing
description, 300
factors, 314, 315
individual portfolios/institutions, 300
liquidity (*see* Liquidity stress testing)
liquidity risk, 299
PRA, 301 (*see also* Reverse stress testing)
risk management tool, 299
role, risk management, 302
vs. scenario, 300, 301, 312, 313
system-wide capital requirements, 303
transitional capital arrangements, 303
Student Loans Company (SLC), 191, 192
Sukuk, 7
characteristics, 234
debt/equity, 235, 236
IFRS 9 analysis, 237
islamic financial institutions, 234
Sunnah/sunna, 1–5, 11, 18, 37, 76, 96, 106
Supervisory Review and Evaluation Process (SREP), 258, 278
Systemic buffers, 262

T

Tabung Haji, 7
Tahawwut and trading activities, 297
Takaful (cooperative financial arrangement)
alternative student finance solution, 192, 193
concept, 177–179
conceptual framework, 194
constants and assumptions, 196
contribution, 193
conventional insurance and re-insurance instruments, 177
disclosure, 199, 200
financial instruments, 186
financial statements, 195
governance issues, 183–185
as hybrids, 180, 181
IFRS treatment, 186, 188, 189
income and expenses, 195
insurance contracts, 186
insurance fund, 177
Islamic insurance, 176
mutual contribution and indemnity, 176
Shariah requirements, 192
structure, 177, 191
TO, 179
Takaful operator (TO), 179
mudaraba model, 181
wakala model, 182
wakala–mudaraba model, 183
Theory of money, 50–52
Time value of money
annuity/periodical payment, 43
Azpilcueta advocated, 42
bay' mu'ajjal and *bay' salam*, 46
calculation, 43
cash-flow analysis, 44
cash flow diagram, 43
cash sale, 44
commodity, 44
concept, 42
conventional economists, 44
credit sale, 44
economic resource, 43
IFIs, 45
in Islamic economics, 45, 46
modern banking and finance, 44
monetarist theory, 43

Time value of money (*cont.*)
positive time preferences, 44, 46
positive/negative transactions, 43
sale price, 45
Tokens, 65, 66, 68
Transactions, current financial system revolve, 320
Trust, 2, 39
and acceptance, 58, 59
financing, 7

U
Universal message, 3
Usufruct, 67, 105
Usul al-fiqh, 4

V
Value-at-risk (VAR) systems, 259
Variable rental rate, 214
Venture capital, *see Mudaraba*

W
Wa'd, 105
Wakala investment agency
analysis, 221, 223
arrangement, 223
counterparty inter-banking placement, liquidity management, 221
early termination (prepayment), 225
investment amount, 224
late payment provision, 225
muwakkil profit, 224
pre-agreed agency fees, 225
Wakala–mudaraba model, 183
Wakala/wakalah, 7, 95, 109, 111, 112, 115, 117, 182
Wampum, 27, 28
Waqf (endowment)
financial disclosure, 206
inalienability, 203
irrevocability, 203
islamic scholars, 200
legitimacy, 201
manager, 206
origin of, 202
perpetuity, 203
in Quran, 201
Shariah requirements, 204, 205
types of, 203
Wholesale assets, 310
Wholesale funding, 285, 286
Wholesale liabilities, 311
Witness (*al-Shahed*), 81, 83
Worker (*al 'aamel*), 81

Z
Zakat/zakah, 2, 6, 10, 55, 60, 61, 76, 77, 81, 86, 88, 91, 93